GAMES FOR KIDS IN SCANDINAVIA

A MARKET ANALYSIS OF CHALLENGES AND OPPORTUNITIES

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GAMES FOR KIDS IN SCANDINAVIA

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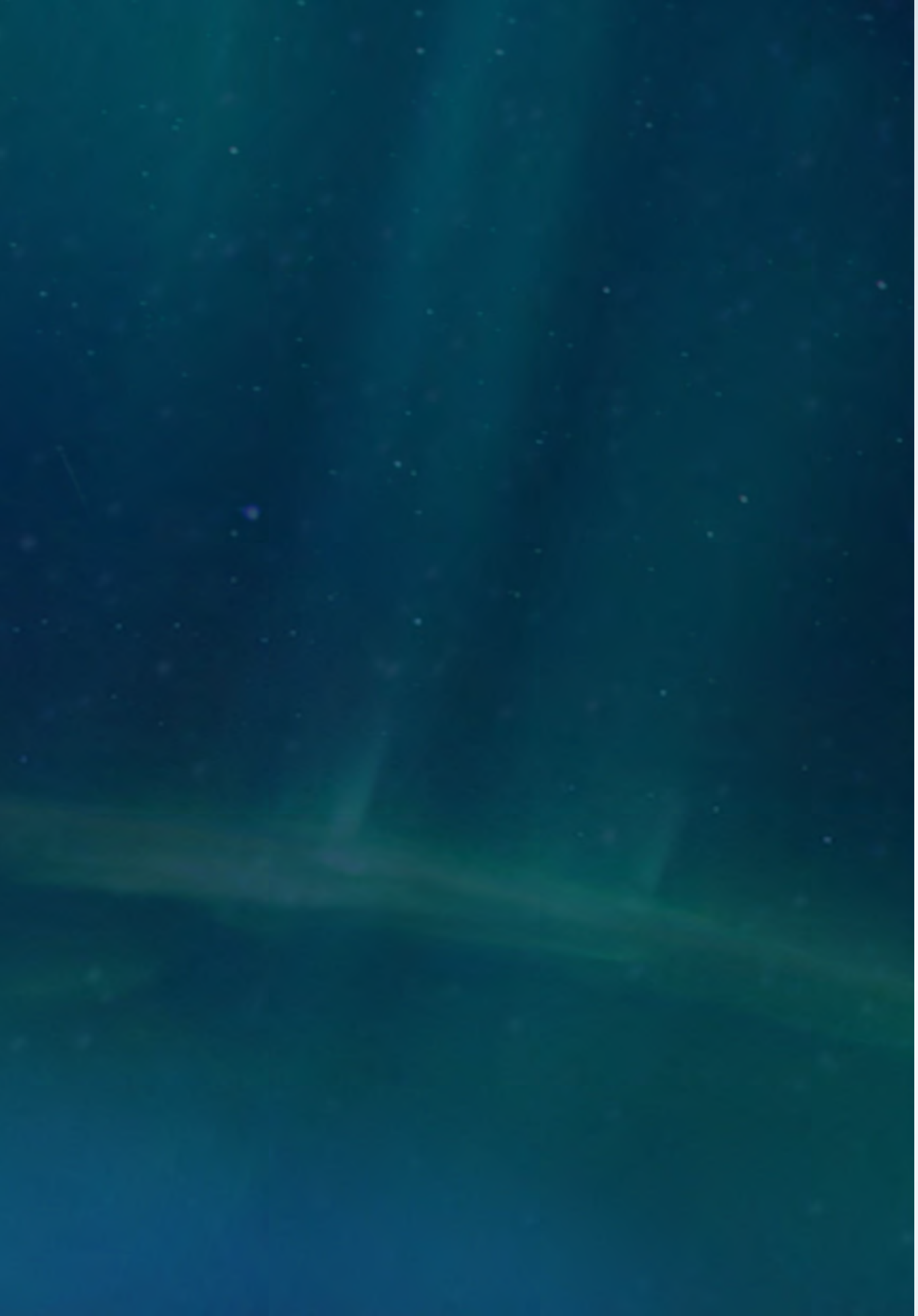

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1. INTRODUCTION

Denmark and the entire Scandinavian region have long had a rich history of producing original entertainment, games, and narrative universes for children throughout the world. Whether related to the traditional Scandinavian storytellers such as **Hans Christian Andersen**, **Thorbjørn Egner** or **Astrid Lindgren** or more contemporary children's brands such as **LEGO**, **Rasmus Klump** or **Toca Boca**, the region has always had a natural understanding and sensibility for this particular age group. In the early days of the digital game industry, the Danish market was also heavily dominated by quality game products - both original and licensed content - produced in Scandinavia as well.

However, as the years have gone by, new international distribution platforms have emerged. The tablet & smartphone have become the go-to devices for kids and the global app stores are now the de facto place to discover new content.

> *NFI har ikke evaluert lansering av barnespill spesielt, men vi ser at mange sliter med å nå bredt nok ut i markedet til å være økonomisk bærekraftig. Heldigvis finnes det noen unntak, både blant spill basert på kjent IP og på original IP. Men generelt sett har barnespill for det mobile markedet slitt med å nå opp i konkurransen med etablerte spillserier og internasjonale IP'er.*
>
> Kaja Hench Dyrlie (Head of Video Games, NFI)

The parents feel increasingly more uninformed about how to find the right and safe content for their kids[1] and at the same time, it has never been easier to get access to any type of content that you are looking for. The fragmented and competitive market have made it increasingly difficult for the Danish and Scandinavian game developers to release games for children successfully. The collective game industry of more than 40 game studios are still capable of producing original, high-quality content for kids, espe-

1.- For example page 14 in the report Småungar & medier 2019 fra Statens medieråd cially with support from state funded initiatives such as **DFI Spilordningen**, **Norsk Filminstitutt** or **Creative Europe** but reaching the end users effectively has become difficult and it seems clear that fewer studios focus exclusively on the kids segment.

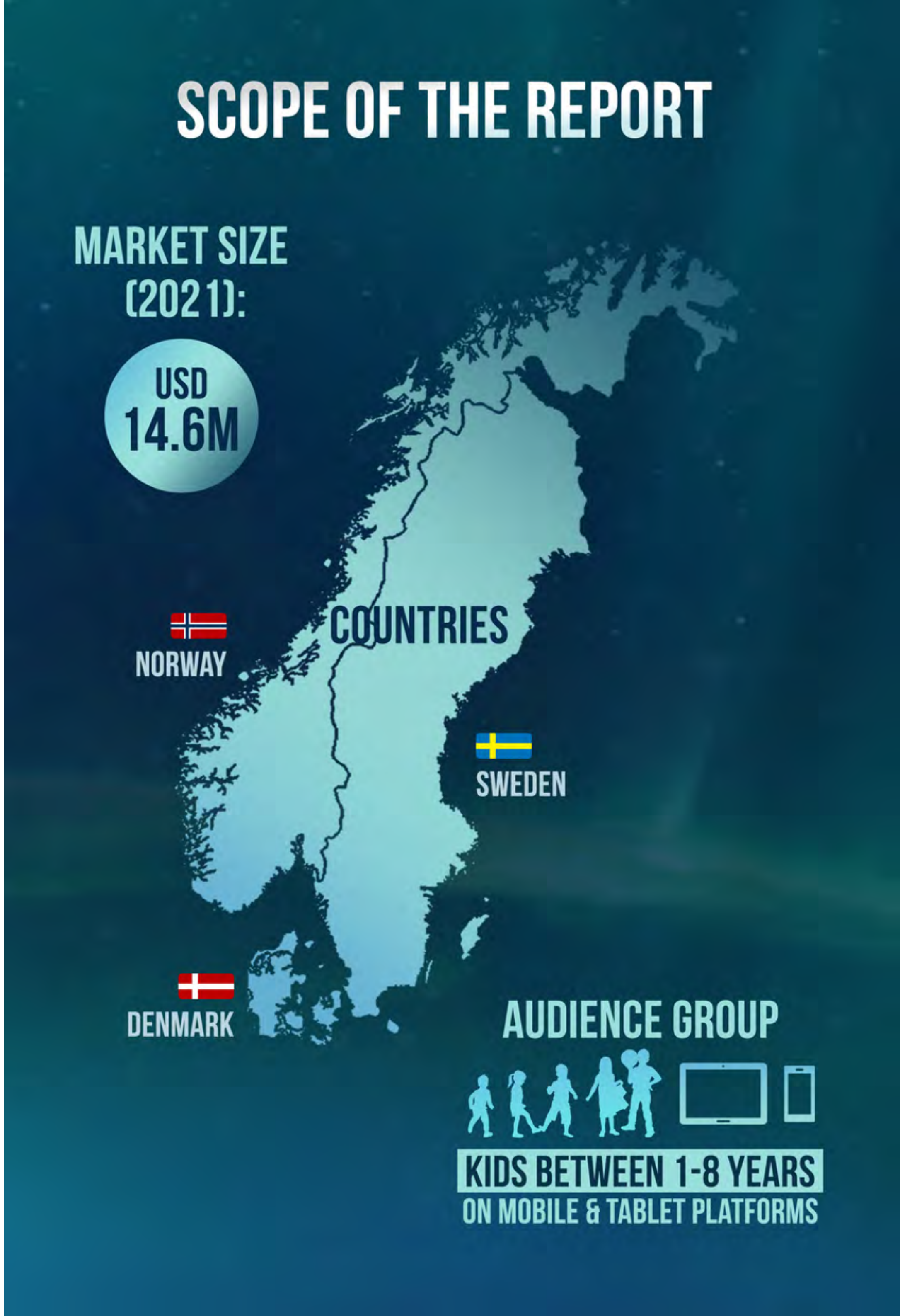
> *Det er slående, hvor få stærke børnetitler der har været i 10'erne egentligt, og hvor svært de har haft det. I stedet for er det jo for de mindre børn, DR og Ramasjang, som sådan set har været det eneste sted at holde en eller anden form for fane højt omkring danske spil.*
>
> Simon Løvind (Redaktør Spilordningen, DFI)

This report will attempt to give an holistic overview of the Scandinavian gaming market for kids - a market that's currently estimated to have grossed more than USD 14.6 million in 2021[2] . How many developers are working in this space, how big is the market potential now and going forward, what type of content are parents looking for? All these questions are worth answering to propose solutions for how to improve the conditions for Scandinavian developers. To do this, we have used a combination of quantitative research across the main distribution channels and combined it with a series of qualitative interviews with specific game developers to understand their experiences making games for kids. We have focused our analysis on the commercial circumstances, as well as included a technical analysis of the distribution requirements. The overall goal of the report is to give a broad analysis and then provide a brief, but immediate list of actionable next steps at the end of the report.

To make a market analysis of this size efficiently, it is important to establish a few boundaries for our analysis. Firstly, this report has been written with a Scandinavian perspective in mind. This assumes that the Danish market on its own is too small to provide an adequate overview of the commercial opportunities[3] for the Danish game developers. We have have made this assumption since few game developers have a strict focus on the Danish

2.- See section on *Consumer Analysis and Market Size* from page *21* of this Report

3.- See section on *Consumer Analysis and Market Size* from page 21 of this Report



market alone and since most distribution channels on mobile platforms are by definition international. At the same time, the natural overlap in language and cultural understanding is strong between the Scandinavian countries, as also evidenced in the new collaborative efforts aimed at fictional content for kids by the state media across the region.[4] In this context the Scandinavian game market is therefore defined as **Denmark, Norway, and Sweden,** where smaller markets (Iceland, Faroe Islands) are excluded due to resource limitations. Additionally, a country like Finland is excluded since this market traditionally is quite culturally different from the other mentioned countries and has a different language stem.

Furthermore, the kids' audience is extremely diversified across both gender and age. Our focus in this report has been the 1-8-year-olds, boys, and girls, since this qualifies as its own independent audience group, which does not yet have a fully globalized mindset and are much less socially affected by their peers compared to older kids. It is clear from several media industry reports from Denmark, Sweden, and Norway that kids older than eight years are heavily affected by their immediate social circles and at this point are primarily consuming game content from international brands such as **Roblox, Minecraft and Among Us**.[5] Kids in the youngest age group are easier to evaluate in isolation. Here the parents still hold importance in terms of discovering and choosing content and therefore have a natural desire to find quality content easily. This grouping also follows **DR**'s latest changes to definitions of target audiences within the kids' segment.[6]

For most of the market data in the report, we have used the state-of-the-art market research tool within the mobile platforms, **App Annie**, to conduct the research and it is important to underline that **App Annie's Intelligence** is a market data product built from a proprietary, advanced statistical model; it is not a survey or study. **App Annie Top Charts** is an app tracking report based on publicly available app store data.

Following this specification of the target audience, we have decided to focus on the mobile and tablet market, since most media industry reports point to this as the primary platform for the youngest audience, when engaging with games and other interactive content.[7]

The overall report and action plan should therefore be read in light of abovementioned specific **target audience**: **The Danish, Swedish and Norwegian games market for kids in the age range of 1-8 on mobile and tablet platforms specifically.** It is however worth mentioning that due to the multitude of sources used in this research work, we have taken the liberty to simplify some groupings as not all sources define kids within the same age range.

4.- https://www.dr.dk/om-dr/nyheder/dr-klar-med-nyt-stort-nordisk-samarbejde-om-boernefiktion

5.- Børns spillevaner 2020, Medierådet for børn og unge, DR og det Danske Filminstitut, 2021

6.- https://www.dr.dk/om-dr/fakta-om-dr/aendringer/drs-boerneuniverser-har-aendret-maalgrupper

7.- Page 7 - *Børns spillevaner 2020, Medierådet for børn og unge*, DR og det Danske Filminstitut, 2021

2. OVERVIEW OF THE SCANDINAVIAN GAME INDUSTRY

Firstly, it is worth looking at an overview of the Scandinavian game developers that are actively working with content for the kids. In our overview we focused on established game studios that have launched more than one game for kids on mobile platforms (either work-for-hire or own intellectual property) within the last five years, or alternatively game studios that through their company branding indicate a clear focus on kids. It was a priority to include game studios that might not be working with games for kids at the time of writing to better understand the overall potential size of the industry.

In this overview, we have removed studios that have a strict educational focus for business-to-business sales, though we have made a few exceptions and included gamified learning such as **Kahoot Poio**. Furthermore, we have included a few studios on the list that are primarily making interactive fiction with light gamification features such as the Danish company **StepInBooks** or **Might & Delight** from Sweden.

In summary, **Denmark has 14 companies, Norway has 11 and Sweden has 22 studios focusing on the market for kids** - both including work-for-hire and the direct business to consumer market. Out of the total number of studios the majority, 32 of them (68%), have games or products listed for other target audiences as well. Furthermore, a lot of the studios on the list have not released games for kids in several years or have gone completely out of business. In the following section we have tried to investigate the reasons behind this in more depth through direct interviews with a handful of game studios.

To conclude, **there are approximately 15 studios in total across the region that are only making content for kids. This does represent a significant smaller part of the entire games industry.**

SCANDINAVIAN GAME STUDIOS

3. QUALITATIVE INTERVIEWS WITH GAME STUDIOS

In this section we have focused our analysis on a small and diverse group of studios from each country to learn more about their past experiences with releasing games for children. Due to resource restrictions, we have had to limit the number of qualitative interviews so one of the studios were only given a questionnaire (marked with a * in the list below). The participating studios are:

- Fuzzy House (DK)
- Those Eyes (DK)
- Funday Factory (DK)
- Northplay (DK)*
- Ravn Studio (NO)
- Pastille (SE)
- Gro Play (SE)

These studios all represent vastly different aspects of the market but share a common trait. All of them have actively pursued kids as a target audience in the past or are still primarily focused on entertainment for kids. Here follows the key takeaways from the studios, but the actual questionnaire can be found in the appendix.

> *There's a lot of interest from "soft money" to build stuff for kids, so I think it's relatively easy to get started - the thing is that it's really hard to actually earn money on the launched product. The competition seems fierce and we had the experience that it was very hard to leave your local area, meaning we had by far the largest success in Scandinavia and had a very hard time converting that success to anything everywhere else [...]*
>
> Anders Leicht Rohde (CCO, Funday Factory)

KEY TAKEAWAYS

Monetization: Several of the studios underline that parents as an audience group are not an easy group to monetize with paid content either through in-app purchases or upfront payments. This has even prompted some of the studios to leave the mobile app market altogether.

> *I 2017 lagde vi vårt foreløpig siste barnespill til mobil/nettbrett. Det er vanskelig å skille seg ut i mengden av spill som tilflyter disse plattformer og selv med kjente brands må det betydelige store salg- og markedsføringskroner inn for å supporte et mobilspill så det er lønnsomt/bærekraftig. Norge er et for lite marked, globalt er det veldig mange spill og da blir det ikke lønnsomt i lengden om man ikke har nødvendig flaks og timing.*
>
> Stine Wærn (CEO, Ravn Studio)

This is essentially also confirmed in our research of the actual consumer and market size, as it's clear that the Scandinavian market is a limited market commercially, also since only a small percentage of people on mobile actually spend on games. We will explore this challenge more in-depth later.

Furthermore, given the age of the target audience, advertising as an alternative revenue model doesn't seem to be a meaningful option. There are platforms for privacy and content safe advertising to kids, but it is not a utilised monetisation strategy for any of the studios.

Motivation: Most studios have had an idealistic reason for pursuing content for kids. This part of the industry seems to be heavily driven by personal motivation, which probably means that the studios active in this segment more often strive for product quality rather than necessarily market fit.

> *Kids are a fun demographic to develop entertainment products for as they're generally more open to experimentation and non linear experiences. Creativity in this age group is high and their affinity for games and the technology and culture around it opens up for experiences that wouldn't do as well in older demographics. Also, having kids yourself and seeing them interact with these sorts of products naturally makes most developers want to produce things for them.*
>
> Michael Flarup (CEO, Northplay)

Marketing & Market Analysis: Several of the interviewed studios have tried to stay up to date on market analysis regularly. Either using freelance consultants or participating in network/conference events. However, it's also clear that more commercial market analysis is not something that they necessarily do a lot in advance of a game release and more often than not they have to consider carefully how they support a game post launch.

In regard to marketing, most studios that we interviewed have tried some combination of paid marketing and traditional PR with mixed success. A lot of them received promotions from the platform holders in the different app stores when launching. A clear takeaway was that most studios knew and did experiment with direct marketing but did not have the knowhow and especially budgets for continuous marketing spend on mobile platforms.

Work-for-hire: A lot of the interviewed studios have done work-for-hire for either state media (DR, NRK, SVT) or global media companies in some capacity and confirms the assumption that these actors play a key part in making games for kids come to life.

It was also underlined that working with these types of brands made marketing and promotion much easier, since there was a high level of recognition within the audience already and since the specific state media essentially took care of the distribution.

Funding: Public funding such as **DFI Spilordningen**, **NFI** in Norway or **Creative Europe** played an essential part in making some of the game releases come to life.

> *Without the public funding we wouldn't have been able to develop our games. Concerning marketing: To really knock in the market we would need a much larger marketing budget, than we have.*
>
> Marianne Tietge (CEO, Fuzzy House)

It is quite clear that without public money available a lot of games for kids simply wouldn't exist in the first place. The funding allows a lot of original content to be produced.

It is however worth noting that three of the most successful, in terms of downloads, game publishers come from Sweden e.g. **Toca Boca, Gro Play and Filimundus**[8] . Sweden is also the only country that does not have direct public funding for video games. It could be speculated that not having a state funded public program forces the studios to act more commercially or to seek out more traditional venture-led funding opportunities earlier instead.

Finally, based on conversations with both DFI and NFI, it also appears that the number of applications for specific content for kids seems to be dwindling.

> *Vi får faktisk ret få ansøgninger til børnespil. Vi er mere tilbøjelige til at bakke op om børnespillene, men ansøgermassen er simpelthen ikke særlig stor. [...] Der er en masse ansøgninger, vi ikke får, simpelthen fordi folk har opgivet projektet på forhånd.*
>
> Simon Løvind (Redaktør Spilordningen, DFI)

8.- Read more in the section *Key Publishers Analysis* from page *8* of this Report

> *Antallet søknader til barnespill har vært relativt stabilt de siste fem årene, men mye lavere antall enn for 10-15 år siden. Vi ser også en utvikling til at barnespillene det søkes tilskudd til er større og har i økende grad gått fra mobil til konsoll/PC som hovedplattform.*
>
> Kaja Hench Dyrlie (Head of Video Games, NFI)

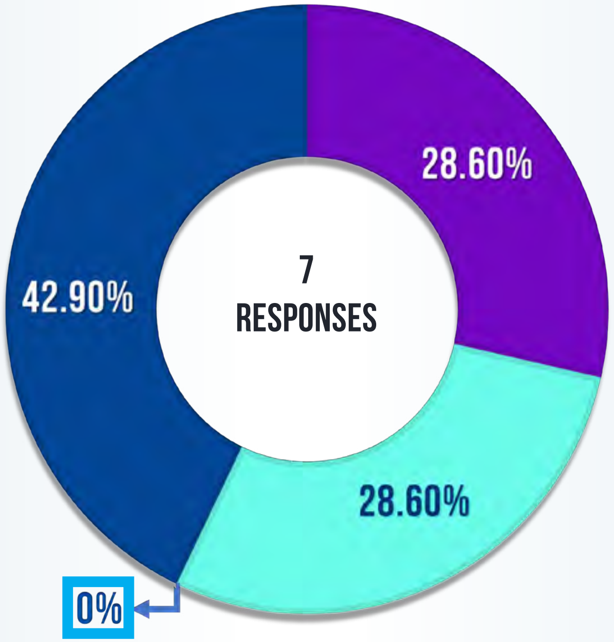
Seeing this pattern confirmed in both Denmark and Norway, this is no doubt the result of a competitive market where studios might be able to fund their production but are not generating sustainable revenue afterwards especially on mobile platforms. It becomes a negative spiral of course, where innovation is hampered within games/apps for kids. It could however also be seen as an opportunity if the right distribution and product strategy was applied together with public funding initiatives that can help alleviate some of the risk of new, creative productions.

Original IP's: Several studios mention the importance of working with a recognizable IP in the market for kids and that parents typically download and pay for IP's that they already know from other media. Generally, a well-matched IP from another media (film, books) will make a huge difference in terms of audience size in the right territories.

> *IP primarily matters if it matches the specific territory that you are going for. We have seen better results with our own original IP's in the US for example compared to scaling a popular Scandinavian IP that doesn't match the audience's preference in visual style.*
>
> Kristian Lundquist (CEO, Gro Play)

Strongly considering the balance between a portfolio consisting of original IP's versus one made out of licensed IP's is essential for being a successful company in the market for kids. As we will also show in the next section, ***Key Publishers Analysis***, there is a tendency for licensed-IP games to do better than original IP releases.

Question: In your opinion what's the most important aspect in order for you to consider releasing games for kids in the future?



- Opportunities to work with a potential distributor/publisher that can help market the game effectively.
- Access to more production funding (public, private) aimed specifically at games for kids.
- More accessible industry knowhow around kids games (production, design, marketing, monetization).
- Better ways to license existing IP's/Brands for potential productions.

LOOKING AHEAD

As a final question and summary of this section, we asked all the participating studios what the key motivator for them would be to continue making quality games for kids.

> *Having a trustworthy publisher believing in our game, is (so far) the most important for me.*
>
> Trine Laier (Director, Those Eyes)

With the limited data set, it is difficult to deduce one specific solution for all studios as the answers were spread pretty evenly across the different response options and probably mostly reflect the specific position that each studio is in.

However, the answers still confirm the overall challenges and underlines that the studios definitely lean toward solutions where they can more easily obtain knowledge about going to market, or potentially just find a partner to take over distribution. The studios feel confident in their ability to build quality games, but not necessarily in their skill sets for launching them.

It is also worth noting that none of the studios that answered the questionnaire were looking for better ways to license existing IP's.

STATE MEDIA

GAMES PUBLISHERS

COMMERCIAL MEDIA COMPANIES

4. KEY PUBLISHERS ANALYSIS

In this section, we have analysed the different key publishers that are currently active in Scandinavia. These are defined as companies which are among the primary distributors of content to kids and that the local game developers will need to consider when going to market with their products. The key publishers are divided into three categories: The state media companies, the dedicated game publishers and finally the commercial media companies.

We have based this analysis on actual market intelligence and have partnered with App Annie to accumulate a list of the top 20 companies in terms of downloads in each territory in 2021. This data covers the app store categories for kids' games, primarily aged 1-8. It is reasonable to expect that a lot of parents download games not listed in these categories as well, but it was out of scope and method to include that in this particular analysis.

The reason for choosing downloads as the main measurement of "success" is that not all these companies use the same business strategy. Games from the local state media have no payment schemes, some of the companies focus on free apps with subscriptions, microtransactions or ads and some are up-front paid apps. In order to simplify these categories, we have chosen to focus on the total amount of downloads to define market reach and relevance for the territory.

THE STATE MEDIA

The digital games market for children in Scandinavia is heavily dominated across both Denmark, Norway, and Sweden by the state media companies' own universes for children. This being DR Ramasjang, NRK Super and SVT Barn, which are equally popular channels on television as well as on digital platforms. For a long time, they have been the most downloaded

APP ANNIE

SCANDINAVIA* TOP 20 KIDS APPS* PUBLISHERS BY DOWNLOADS

Rank	Company Name	HQ	No of Apps	Top App By Downloads For Company
1	My Town	Israel	148	My Town: Home Dollhouse
2	Spin Master	Canada	153	Toca Life: World
3	Budge	Canada	68	Barbie Dreamhouse Adventures
4	TutoTOONS	Lithuania	35	Fluvsies
5	Bimi Boo Kids	United States	31	Learning games for toddlers 2+
6	PSV Studio	Ukraine	74	Vlad & Niki Supermarket game
7	XiHe	China	22	Miga Town: My World
8	BabyBus	China	84	Baby Panda World
9	Pazu Games	Israel	47	Pizza maker cooking games
10	Google	United States	6	YouTube Kids

Rank	Company Name	HQ	No of Apps	Top App By Downloads For Company
11	Sveriges Television	Sweden	10	SVT Barnkanalen
12	Hasbro	United States	36	World of Peppa Pig
13	Gro Play	Sweden	22	Play ABC Alfie Atkins
14	StoryToys	Ireland	38	LEGO DUPLO WORLD
15	Internet Design Zone	India	74	Tizi Town Airport
16	Bubadu	Slovenia	15	Bubbu
17	LEGO	Denmark	10	LEGO® Building Instructions
18	Kahoot!	Norway	9	Kahoot!
19	Yateland	China	68	Dinosaur Digger 3
20	Dr. Panda	China	55	Dr. Panda Town

Source: App Annie Intelligence

January 2021 – July 2021, Combined iOS and Google Play for Denmark, Norway and Sweden

Among Publishers of Apps and Games within Ages 5 & Under and Ages 6-8 Subcategories on iOS App Store and Google Play

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APP ANNIE

DENMARK TOP 20 KIDS APPS* PUBLISHERS BY DOWNLOADS

Rank	Company Name	HQ	No of Apps	Top App By Downloads For Company
1	My Town	Israel	147	My Town: Home Dollhouse
2	Spin Master	Canada	152	Toca Life: World
3	DR	Denmark	4	DR Ramasjang
4	Bimi Boo Kids	United States	31	Learning games for toddlers 2+
5	Budge	Canada	68	Barbie Dreamhouse Adventures
6	Pazu Games	Israel	46	Pizza maker cooking games
7	TutoTOONS	Lithuania	35	Fluvsies
8	XiHe	China	22	Miga Town: My World
9	Google	United States	6	YouTube Kids
10	PSV Studio	Ukraine	70	Vlad & Niki Supermarket game
11	StoryToys	Ireland	34	LEGO DUPLO WORLD
12	Yateland	China	67	Dinosaur Garbage Truck
13	BabyBus	China	77	Baby Panda World
14	LEGO	Denmark	10	LEGO® Building Instructions
15	Internet Design Zone	India	55	Tizi Town Airport
16	Dr. Panda	China	55	Dr. Panda Town
17	Hasbro	United States	36	World of Peppa Pig
18	Kahoot!	Norway	6	Kahoot!
19	Gro Play	Sweden	20	Play ABC Alfie Atkins
20	Niantic	United States	1	Pokémon GO

Source: App Annie Intelligence
January 2021 – July 2021, Combined iOS and Google Play for Denmark, Norway and Sweden
Among Publishers of Apps and Games within Ages 5 & Under and Ages 6-8 Subcategories on iOS App Store and Google Play

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APP ANNIE

NORWAY TOP KIDS APPS* PUBLISHERS BY DOWNLOADS

Rank	Company Name	HQ	No of Apps	Top App By Downloads For Company
1	Spin Master	Canada	153	Toca Life: World
2	My Town	Israel	148	My Town: Home Dollhouse
3	Budge	Canada	68	Barbie Dreamhouse Adventures
4	TutoTOONS	Lithuania	34	Fluvsies
5	NRK	Norway	5	NRK Super
6	Bimi Boo Kids	United States	31	Learning games for toddlers 2+
7	PSV Studio	Ukraine	70	Vlad & Niki Supermarket game
8	Google	United States	6	YouTube Kids
9	XiHe	China	22	Miga Town: My World
10	Pazu Games	Israel	47	Pizza maker cooking games

Rank	Company Name	HQ	No of Apps	Top App By Downloads For Company
11	BabyBus	China	84	Baby Panda World
12	Hasbro	United States	35	World of Peppa Pig
13	StoryToys	Ireland	35	LEGO DUPLO WORLD
14	Kahoot!	Norway	9	Kahoot!
15	Internet Design Zone	India	62	Tizi Town Airport
16	Yateland	China	68	Dinosaur Digger 3
17	Gro Play	Sweden	20	Play ABC Alfie Atkins
18	Bubadu	Slovenia	15	Bubbu
19	LEGO	Denmark	10	LEGO® Building Instructions
20	Dr. Panda	China	55	Dr. Panda Town

Source: App Annie Intelligence

January 2021 – July 2021, Combined iOS and Google Play for Denmark, Norway and Sweden

Among Publishers of Apps and Games within Ages 5 & Under and Ages 6-8 Subcategories on iOS App Store and Google Play

[Learn More About Mobile Gaming in 2021]

APP ANNIE

SWEDEN TOP KIDS APPS* PUBLISHERS BY DOWNLOADS

Rank	Company Name	HQ	No of Apps	Top App By Downloads For Company
1	My Town	Israel	147	My Town: Home Dollhouse
2	Spin Master	Canada	151	Toca Life: World
3	Budge	Canada	67	Barbie Dreamhouse Adventures
4	TutoTOONS	Lithuania	35	Fluvsies
5	Sveriges Television	Sweden	10	SVT Barnkanalen
6	PSV Studio	Ukraine	70	Vlad & Niki Supermarket game
7	BabyBus	China	83	Baby Panda World
8	Bimi Boo Kids	United States	31	Learning games for toddlers 2+
9	XiHe	China	22	Miga Town: My World
10	Pazu Games	Israel	47	Pizza maker cooking games

Rank	Company Name	HQ	No of Apps	Top App By Downloads For Company
11	Google	United States	6	YouTube Kids
12	Gro Play	Sweden	22	Play ABC Alfie Atkins
13	Hasbro	United States	36	PJ Masks: Moonlight Heroes
14	Internet Design Zone	India	67	Tizi Hospital Games for Kids
15	Bubadu	Slovenia	15	Bubbu
16	Sveriges Utbildningsradio	Sweden	3	Tripp Trapp Träd
17	StoryToys	Ireland	36	LEGO DUPLO WORLD
18	LEGO	Denmark	10	LEGO® Building Instructions
19	GoKids!	Singapore	18	Truck Games for Kids
20	Pepi Play	Lithuania	22	Pepi Hospital

Source: App Annie Intelligence

January 2021 – July 2021, Combined iOS and Google Play for Denmark, Norway and Sweden

Among Publishers of Apps and Games within Ages 5 & Under and Ages 6-8 Subcategories on iOS App Store and Google Play

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apps across both **Google Play Store** and **Apple App Store** in each of their home countries. The distribution strategy for each, however, differs.

DR's Ramasjang app works as a so-called mother application, which encompasses a mix of both video, music, and a lot of different mini games that can then in turn be downloaded by the parents directly to the mother application to choose between different content. This differs from **NRK Super** and **SVT Barn** which have instead chosen to only put video and music in their main apps and then split limited game content out as independent solo applications - this being their most popular characters such as **NRK's Fantorangen** and **SVT's Bolibompa** that each have their own app with just a few mini games implemented.

Furthermore, DR has also recently decided to split some of their audience from Ramasjang into a dedicated app of its own called **DR Minisjang**. Minisjang is specifically aimed at the youngest children (age 1-3) and DR cites the need to cater original and purposefully designed content to this audience.[9] This also confirms the fact that applications aimed at children need to be extremely age-diversified, there is a big difference between a six-year-old and a two-year-old and each age group needs their own type of meaningful content. Minisjang did not launch until April 2021 and it is most likely the reason for it not being in the top 20 list of 2021.

No matter the distribution strategy, the conclusions from this category are clear - the parents are actively looking for content from trusted sources and preferably sources that contain universes or characters that they are already familiar with from other media. This is also evident from all the Scandinavian media studies mentioned previously[10]. The state media therefore serves an important role in this ecosystem having become the de facto place for quality assuring the content and a so-called "safe haven".

The primary challenge with a Scandinavian game market for kids dominated by the state media is however, that these distributors only rarely support

9.- https://www.dr.dk/om-dr/nyheder/paa-mandag-rammer-minisjang-skaermen-og-naeste-aar-gaar-ny-stor-animationssatsning-i

10.- For example page 28 i *Småungar & medier 2019 fra Statens medieråd*

new universes from other production companies or the development of new intellectual property. In this example, DR almost exclusively develops titles and IP's within the Ramasjang universe and NRK within the Super universe.

In the previous section with the overview of the entire games industry, we observed that a lot of the game studios are benefiting from work-for-hire assignments from the state media, but since this work has no long-term commercial upside, it also has a hard time creating any long-term value for the specific company or the industry as a whole. The overall innovation of the game industry is limited as the content must fit what can best be described as a template.

Furthermore, studios producing content for the state media traditionally do not have any ownership or revenue upside from the titles they produce. Being state funded inherently makes it almost impossible to make money on the specific product. The developer will of course receive payment for their work, but with no guarantee that they will get more work later, they are left to pursue new opportunities afterwards. Furthermore, the state media are at the same time not actively launching their products in any additional markets beyond their home country, so any potential revenue from global markets is therefore lost.

One way of improving this would be to give the game studios usage rights outside of the home country of the state media, thereby allowing the studios to adjust the product and commercialize it for a potential global audience.

THE GAME PUBLISHERS

A game publisher in this context is defined as a larger game company that is independently driving marketing and distribution of a series of their own games to a sizable audience. Furthermore, these companies could also be publishing the content of other game studios or licensing their own IP's to build new work-for-hire games.

Scandinavia has few local game publishers with a specific focus on content for kids. The market leader must be Swedish/Canadian **Toca Boca** that through their Toca universe have created a long range of popular game titles to a broad audience during the last ten years. In 2021 so far, they were the kids game publisher with the 8th most app installs on the **App Store** and **Google Play Store** across Denmark, Norway, and Sweden.

Toca Boca mostly takes care of their own development, but they also have hired other game studios to create content for them. Furthermore, their market has expanded globally over the years, and they have become one of the more famous publishers of game content for children in a number of global markets such as the US, UK etc.

A few other companies such as **Filimundus** or **Gro Play** from Sweden have also launched a series of applications for children and at the same time have an active focus on the Scandinavian market through their brand or IP's. Gro Play for example ranks 12th across the entire region.

It is clear from this research that a lot of international actors are highly active in Scandinavia and have control of a sizable amount of the complete market. Some of the most successful publishers are Israeli based **MyTown** and **Pazu** who have some of the highest number of downloads in the analysed period. Furthermore, there are several Chinese companies such as **XiHe**, **BabyBus** and **Yateland** that are responsible for a lot of downloads. The rest are spread evenly across many different countries, but it is worth noting that some of the most successful publishers are **registered outside Europe** such as China, Dubai-registered **Bimi Boo** that has a mass market globally or Seychelles-registered **PSV Studio.**

The Scandinavian game market is therefore filled with international companies, since **75% of the most successful companies in 2021 came from outside the region.**

It has not been the focus of this preliminary analysis, why these companies are so successful in Scandinavia as well, but there are many potential reasons for this. First of all, a strategy involving effective and scalable per-

formance marketing to the parents through social media channels across multiple global territories will provide an advantage when trying to be competitive on distribution. Sustained high chart positions also historically lead to increased downloads and in turn makes it even easier to be discovered by the users through the app stores.

Downloads are a known ranking factor — and the more traffic your listing gets, the higher the number of downloads. This creates a positive feedback loop: the higher you rank, the more likely you are to get visits that lead to conversions. [11]

Secondly, potential network effects from having a long range of apps available in the app stores will have a so-called entrenching influence where it becomes easier to continue your dominant position. Most of the top-ranking game publishers and media companies have a large number of different apps that they can do active cross-promotion between. Essentially ensuring that the users never leave the ecosystem.

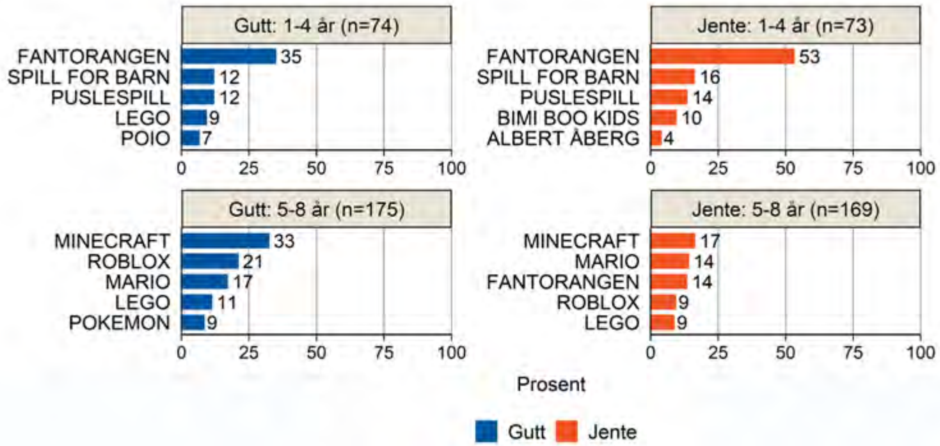
Finally, it could also be due to repeated promotion in the app stores, where both **Apple** and **Google** offer specific placement to kids-oriented apps.

It is however important to note as well that this means that there could be a sizable market potential to unlock at the same time. For example, one product/market strategy to mention at this point could be to pursue a series of smaller products that are more aimed towards the Scandinavian market specifically and then apply some of the same effective distribution and store optimization tactics that the key players are using.

This of course again follows the assumption that the parents want to find the quality approved content for their kids, but that they are currently funnelled towards the only content that has significant market visibility.

That there is a discrepancy between the parents' intent to find quality content and then at the same time downloading a lot of unknown content is also evident from the report **Foreldre og Medier 2020 fra Medietilsynet i Norge**:

Hvilke spill spiller barnet ditt mest? Her mener vi alle typer spill som kan spilles på enten PC, spillkonsoll, mobil, nettbrett eller lignende. Angi så korrekt navn som mulig (maks 3 svar). Prosentandel. Topp 5 nevnte for jenter og gutter i ulike aldersgrupper. N=20–175. [12]



It is clear from the statement: "**Spill for Barn**" og "**Puslespil**" that the parents rarely know what specific type of game brand their youngest kids are playing beyond the most recognizable IP's. They have most likely "just" downloaded one of the apps that was promoted to them within the store without necessarily realising what types of other content that was available.

11.- https://www.adjust.com/blog/the-real-reasons-why-paid-marketing-helps-boost-organic-installs/

12.- For example, excerpt of Table 29, in the report *Foreldre og Medier 2020* fra Medietilsynet (page 51). "Which games does your child play the most? Here we mean all types of games that can be played on either PC, game console, mobile, tablet or similar. Enter as correct a name as possible" Ad Hoc translation.

COMMERCIAL MEDIA COMPANIES AND OTHER BRANDS

The final category of key players in Scandinavia is the traditional commercial media companies and brands from outside the digital gaming business doing their own releasing of game content instead of licensing to game studios. Examples in this category are companies like Egmont Group, LEGO, or international companies like Hasbro, Entertainment One or Nickelodeon. These companies typically have the advantage that their brands and products are already well known on other platforms than digital games - Peppa Pig for example is one of the most popular children's brands in the world and of course ranks high in the app stores as well. The same goes for LEGO Duplo or Nickelodeon's Paw Patrol.

All these actors share the same perspective as the state media, since they rarely prioritise or produce original content, which are not based on one of their already existing brands. In many instances their focus is also primarily on brand awareness across media platforms rather than distribution strategies for digital games specifically. This means that their games will in many cases serve the purpose of supporting content for the overall brand and not necessarily be independent commercial products.

In this instance, this group is also not adding additional value to the general ecosystem of the Scandinavian games market. They do however again confirm the previous conclusion that the game market for kids is extremely brand driven.

CONCLUSION

As exemplified throughout this section, the Scandinavian game market for kids is currently dominated by several different actors and companies that do not necessarily contribute additional value to the local games industry. This accounts for both the state media prioritising their own universes for children without a commercial focus, the international game publishers with a non-Scandinavian focus but massive marketing budgets, or finally the big and international brands for kids that use their digital presence mostly as a brand exercise. A sizable number of downloads go towards the trusted, quality brands from the state media in each country, but there is a large market opportunity outside this activity.

Except for a handful of specialized Scandinavian game companies mostly located in Sweden such as Toca Boca, Filimundus and Gro Play there are few companies that have repeatedly managed to successfully launch a lot of games to this target audience.

Clearly there is a general distribution challenge for the game developers trying to launch new original IP's. The market is fragmented and competitive with several international actors with stronger marketing knowhow and bigger portfolios of games taking the majority of downloads. We will explore solutions to this more thoroughly in the last part of the report.

5. CONSUMER ANALYSIS AND MARKET SIZE

Kids in Scandinavia are born digital and from exceedingly early on have access to the Internet and different media devices. In this section, we will explore a broad consumer analysis of this target audience to understand the segment better and to add some quantitative data about the potential market size and habits.

Staten's Medieråd in Sweden, **Medietilsynet** in Norway and **Medierådet for Børn og Unge** together with **DR** and **DFI** have all in the period 2019-2021 presented some comprehensive reports regarding children and their digital usage including gaming and we will use this extensive work to form the basis for our analysis.

The most important media activities for children in all the Scandinavian countries in our defined target group children from 1-8 are:

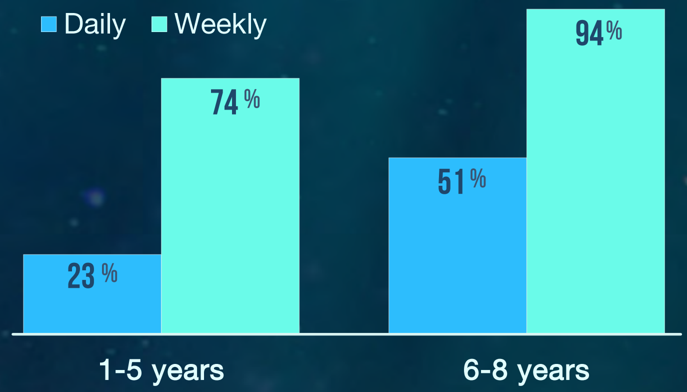
- Watching Film and TV
- Watching YouTube/Kids
- Gaming

By using the data presented by the reports mentioned the children's media activities can be further analysed. Due to the different format of the reports and slightly different age group definitions, we need to present the data somewhat differently for each country:

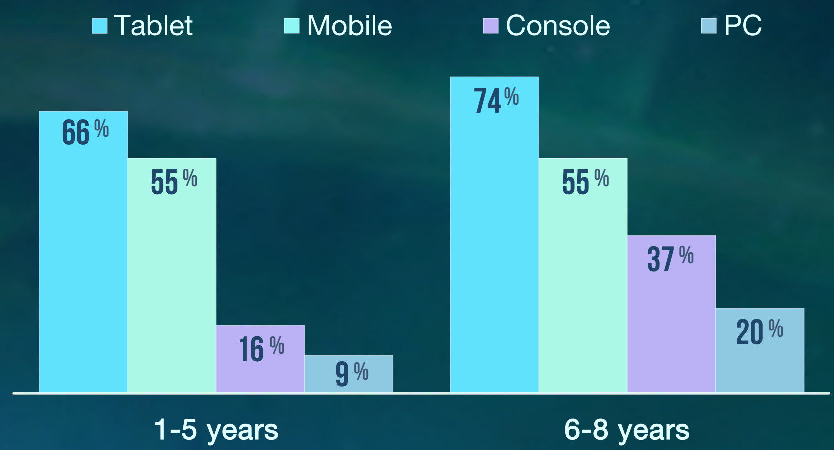
KIDS MEDIA ACTIVITIES BY COUNTRY

DENMARK [13]

GAMING DAILY OR ON A WEEKLY BASIS:



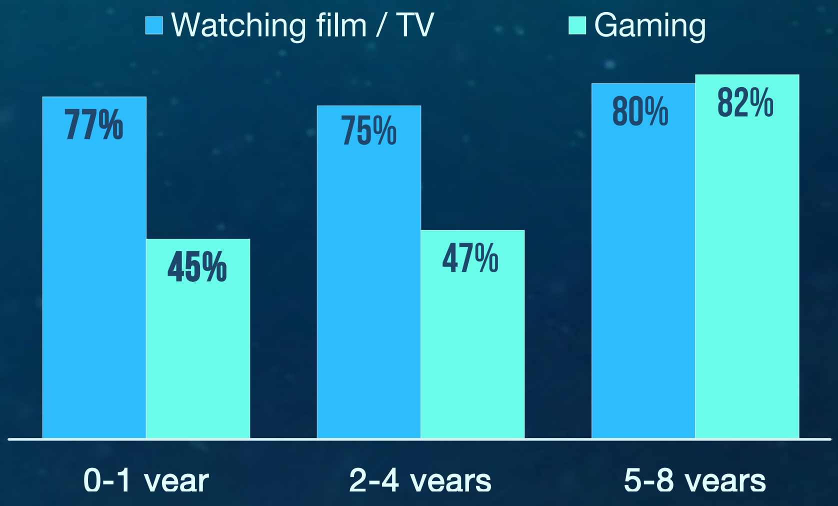
DEVICE USED FOR GAMING:



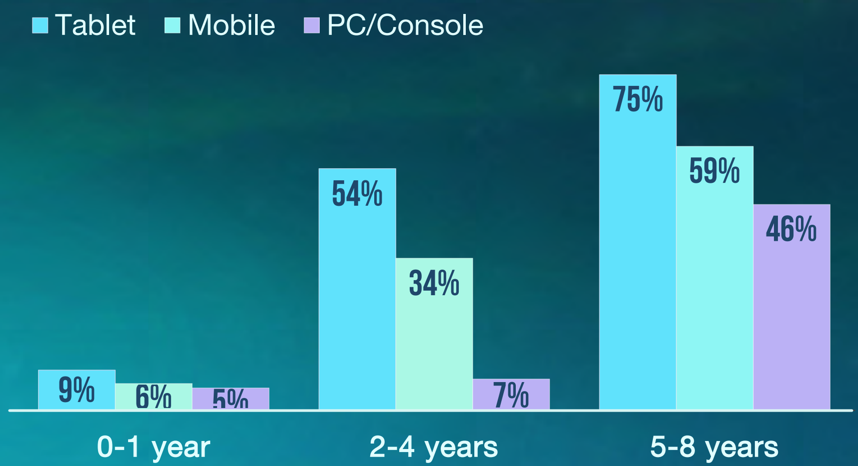
13.- Source: Børns spillevaner 2020 - Medierådet for Børn og Unge, DR og DFI.

SWEDEN: [14]

PERCENTAGE OF CHILDREN BY AGE GROUPS USING THESE SPECIFIC MEDIA ON MOBILE AT LEAST ON A WEEKLY BASIS:



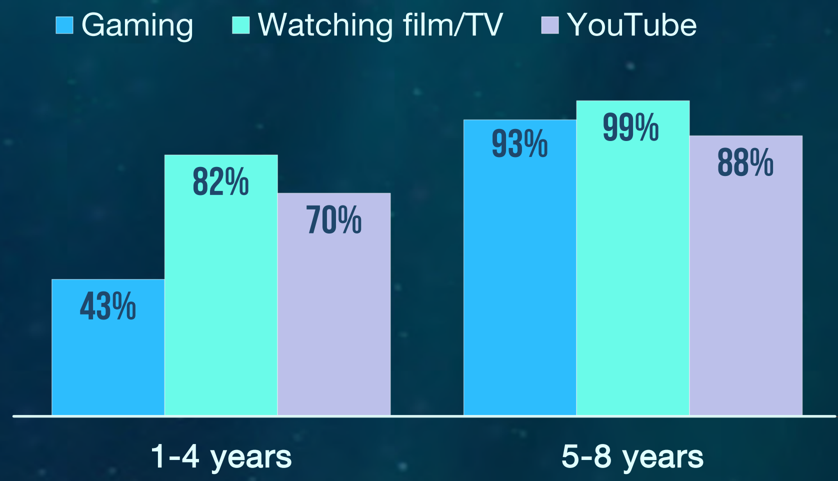
PERCENTAGE OF CHILDREN GAMING USE THESE DEVICES FOR GAMING ON A DAILY BASIS.



14.- Source: Småungar & Medier 2019 - Statens Medieråd

NORWAY: [15]

MONTHLY USAGE OF DIFFERENT MEDIA IN SPECIFIC AGE GROUPS:



Although the figures are not fully cohesive across the Scandinavian reports, we find it reasonable to reach the following conclusions:

- Playing games is a major leisure activity for children in the age group 1-8 years in Scandinavia, and it only gets bigger as the children grow older.
- Gaming as leisure activity increases rapidly with the age of the children and when children have reached the age between 5 – 8 years old nearly all children play digital games regularly.
- Tablet and mobile phones are the most important devices used for gaming in the younger segments.
- Main competition for the gaming industry is film/TV and YouTube/ YouTube Kids.

15.- Source: Forældre og medier, October 2020 – Medietilsynet Norge

THE PARENT ROLE VS. CHILDREN GAMING

Parents in Scandinavia are generally trying to be well informed about what kind of games their children are playing and how much time the children spend on gaming. Some figures to illustrate this:

- 66% of parents in Norway with children in the age group 1-5 years old are talking frequently with their children about their gaming activities.
- In Denmark 48% of the audience (kids 1-8 years old) are only allowed to play games made for their age.
- In Denmark children in the age group 1-15 years old, 71% of the children answer that the parents decide what they are allowed to play. Though mostly predominant with the age group 1-8 years old.
- In Sweden 67% of all parents with children in the age group 5-8 years old frequently talk with their children about their gaming activities. In the age group 2-4 years old the figure is 45% and most likely lower, since the parent just decides what content the child interacts with.
- In all countries it is a clear observation that as the children are getting older the parents' influence on the gaming activities of their children diminishes.

It seems fair to conclude that parents in Scandinavia are paying significant attention to their children's digital behaviour, what games they are playing and how much. However, it is more questionable how conscious a role the parents play when it comes to finding the actual games, as we also illustrated in the *Key Publishers Analysis* section of this report. We believe it is a fair assumption that the younger the children are, the more active the parents are in discovering the games, but these game titles might as well be found through marketing on social channels or by using general generic app store search functionality such as "great free kids games.

As per the above-mentioned reports, we can see that from the age of 5-6 the children in all Scandinavian countries are moving rapidly towards international titles with a strong social interaction included. Due to the popularity of these international titles (e.g., **Minecraft, Among Us, Roblox** etc.) it is a challenge for the parents to find and present alternative games to their children. Essentially, this means that from the age of 6 or 7, the parent's role becomes more of a passive gatekeeper.[16]

From the Swedish report (**Småungar & Medier 2019- Statens Medieråd**) we can see some interesting data regarding how well parents feel advised about children's media habits and how well the society is protecting children on digital media.

Parents who believe that society is NOT giving children sufficient digital media protection:

	Games	TV (state)	Soc. Media	Internet	Other TV	Streaming
0-1 yr:	36%	11%	51%	52%	24%	25%
2-4 yrs:	44%	7%	64%	65%	29%	20%
5-8 yrs:	52%	8%	62%	66%	32%	24%

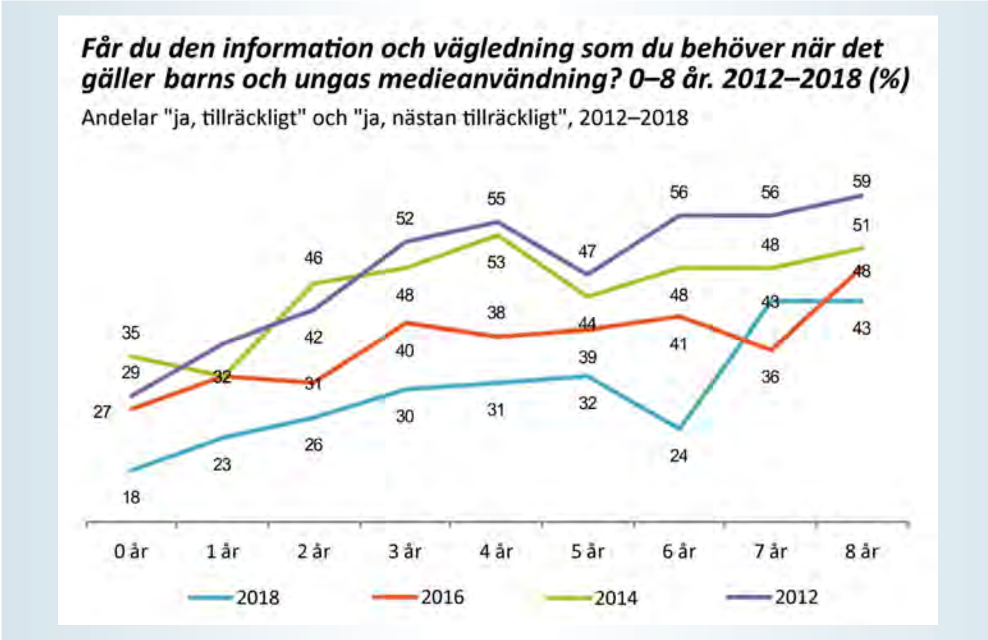
And perhaps even more interesting, parents seem to be feeling more and more uncertain about the amount of available information as the digital markets have matured.

Based on the following data we find it fair to make the following conclusions:

- Parents in Scandinavia are more sceptical toward gaming compared to film and TV.
- Parents are increasingly finding it more and more difficult (since 2012) to be well informed about their children's digital habits and media usage.[17]

16.- Småungar & Medier 2019 - Statens Medieråd, Foræeldre og medier Oktober 2020 – Medietilsynet Norge, Småbarn og medier Februar 2021 – Medietilsynet Norge, Børns spillevaner 2020- Medierådet for Børn og Unge, DR og DFI.

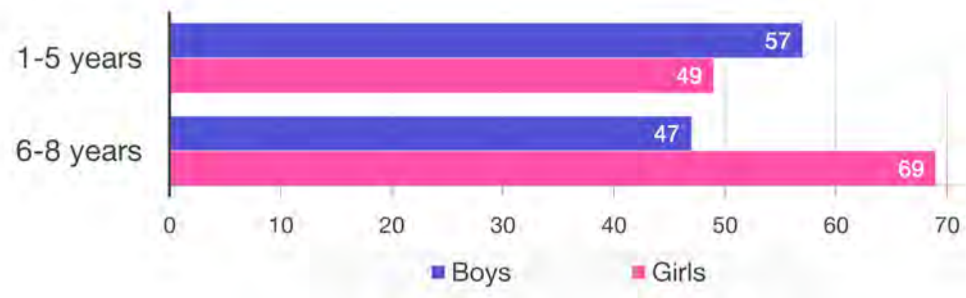
17.- Småungar & Medier 2019 - Statens Medieråd



PAYMENT AND MONETIZATION

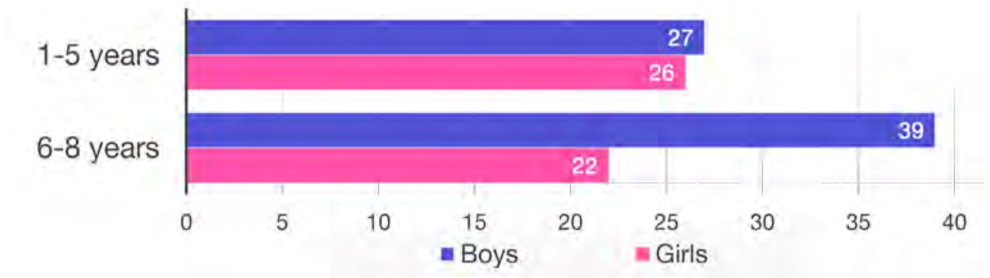
The best aggregated quantitative data regarding payment for games or content within games we found in the report **"Børns spillevaner 2020- Medierådet for Børn og Unge, DR og DFI"**[18] Where we would like to highlight the following findings:

Percentage of children only playing free games:



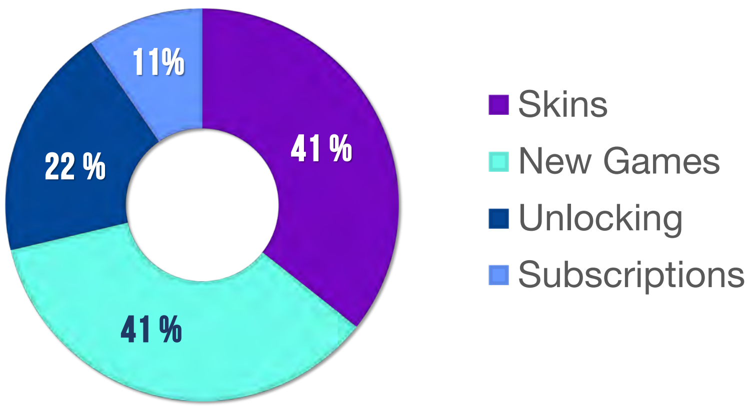
18.- Source: Børns spillevaner 2020- Medierådet for Børn og Unge, DR og DFI.

Percentage of children who replied "YES" to the question:
"Do you ever use money on games (new games or IAP)?"



There are no figures for the actual spend per month for the age groups but in total for the age group 1 – 15 years we can see that in Denmark 10% spend between 200 – 400 DKK, 22% spend between 50 – 100 kr. and 47% spend less than 50 kr. It is also clear that boys in general are spending more and that the spending increases with the age of the children.

Children asked about what the money is mainly spent on.



In the Norwegian report **"Småbarn og medier Februar 2021"** we see that in the age group 1- 8 years old only 11% of the parents talked with their children about payment for games and 79% of the parents replied that they or their children never bought a game or content in a game: *"Det er relativ uvanlig å kjøpe ting (enten av forelden eller barnet selv) blant barn i alderen 1-8 år (79 prosent av foreldrene oppgir nej, verken jeg eller barnet har kjøpt noe)"*. [19]

The above data do for several reasons have some limitations due to the big age range in the report from Denmark and since we do not have any data from Sweden. Still, we think it is reasonable to conclude as follows:

- The amount of free content available means that the majority of parents are not used to paying for games to their children in the age group 1-8 years. This is especially visible on **App Store** and **Google Play Store**, and it is also reaffirmed by some of the studios that we spoke with in the qualitative interviews.

- Most parents/children who are paying for games or content are spending less than 50 DKK per month. This is probably an important figure to be aware of for developers creating games for kids, as it highlights how used the audience is to be paying for content and what the approximate payment threshold is.

APPROXIMATE SIZE OF THE MARKET

The total number of kids in the target group age of 1-8 year old in Scandinavia is **1.840.000 children**. If we consider that the average family has 1.7 kids and attempt to adjust for time difference between child no. 1 and 2, then the number of households with children in the target group is **1.344.000 households**. The number of households with children in the different age groups within the target group would look as follows[20]:

19.- For example page 56 in the report Foreldre og Medier 2020 fra Medietilsynet

20.- Sources: Danmarks Statistik, SSB Norge og SCB Sverige

Number of households per age groups

1.344.000 households

- 1-2 years ≈ 400.000
- 3-4 years ≈ 346.000
- 5-6 years ≈ 301.000
- 7-8 years ≈ 297.000

TThe percentage of children playing mobile games on a weekly basis is high across the Scandinavian market and increasing fast with age jumping from approximately 30% in the age group 1-2 years to 60-70 % in the age group 2-4 and around 90% when the children reach the age of 5-6 years.

When we take into consideration the percentage of weekly gaming activity within each of the above-mentioned age groups, we can estimate (≈) the number of available households to be:

Age Group (years)	Households per Age Groups	Percentage of kids are gaming per Age Group (%)	Total estimated of potential Households to target per Age Group
1-2	400,000	30	120,000
3-4	346,000	65	225,000
5-6	301,000	90	273,000
7-8	297,000	94	279,000

This calculation scenario totals **897.000** households and while this figure is only a starting point and a rough calculation for this particular example, it does give an indication of the overall total addressable market. However, developers still need to consider that each individual age group - especially the youngest - are not that big on their own and therefore having content or games that can fit across multiple age groups would be instrumental in reaching a larger market.

It essentially means that developers should not only consider the audience and marketing of a single game, but possibly take into consideration their entire portfolio of games to keep having content for kids as they grow older. This way trusted IP's/brands could potentially have an exceptionally long user retention across multiple years since parents clearly are actively searching for content from the same trusted sources and would therefore theoretically continue using games from the same developer/publisher source.

Diving deeper into the overall market value, we have partnered with App Annie to provide market size estimations for 2021 throughout different countries in Europe based on each platform, Apple & Google.

MARKET SIZE FOR KIDS* CATEGORY APPLICATIONS

Europe | iOS & Google Play, January to July 2021

Rank	Country Name	iOS App Store (USD Millions)	Google Play (USD Millions)	Combined (USD Millions)
1	United Kingdom	$17.1	$21.0	$38.1
2	Germany	$3.9	$30.2	$34.1
3	France	$2.2	$9.8	$12.0
4	Netherlands	$1.5	$5.8	$7.3
5	Sweden	$2.4	$4.5	$6.8
6	Russia	$3.6	$3.1	$6.7
7	Italy	$1.8	$4.3	$6.1
8	Spain	$1.3	$4.3	$5.6
9	Norway	$1.5	$2.9	$4.3
10	Poland	$0.7	$3.6	$4.3
11	Belgium	$0.6	$3.7	$4.3
12	Denmark	$1.7	$1.8	$3.5
13	Austria	$0.4	$3.0	$3.4
14	Switzerland	$1.0	$2.3	$3.3
15	Finland	$0.3	$1.9	$2.2
16	Ireland	$0.8	$1.2	$2.1
17	Czech Republic	$0.3	$1.4	$1.7
18	Portugal	$0.2	$1.0	$1.3
19	Ukraine	$0.7	$0.4	$1.1
20	Hungary	$0.2	$0.7	$0.9
	Europe Total	**$43.8**	**$108.8**	**$152.6**

APP ANNIE

Source: App Annie Intelligence
January 2021 – July 2021, Combined iOS and Google Play.
Total among Top 20 Apps by Consumer Spend within Ages 5 & Under and Ages 6-8 Subcategories on iOS App Store and Google Play

[Learn More About Mobile Gaming in 2021]

This gives a rough breakdown of the market size of each platform and territory, and also an indication of what markets to target, once you are ready to pursue more active promotion outside Scandinavia for example. Interestingly enough Norway has by far been a bigger revenue driver than Denmark despite being a smaller country. It is also worth underlining that having active distribution strategies for UK and Germany is imperative based on their overall market share. It is also worth pointing out that a lot of these markets on the list tilt heavily towards the Google Play Store in terms of consumer spend. This goes against conventional wisdom of the App Store being the more valuable and the higher consumer spend market.

This data naturally has some limitations, since it does not take into consideration any advertising revenue or revenue from games that are not in the Kids Section of the app stores, but it still gives a rough outline to hold against the total amount of the estimated 897.000 households in Scandinavia.

CONCLUSIONS ON CONSUMERS AND MARKET SIZE

Gaming is a major leisure activity for most children in Scandinavia, but obviously with strong competition from film/TV, YouTube Kids and from the age of 6 also from social media.

At an exceedingly early age children become independent from their parents regarding digital habits leaning rapidly towards international gaming titles with a strong social profile. It would most likely be challenging to take on the task of creating games appealing to children older than 8 years of age for any developer, and it is beyond the scope of this report to offer recommendations on how to approach publishing and distribution for this audience.

Here follows several important takeaways from the full analysis:

- The amount of kids gaming is increasing rapidly with age, until it reaches +95% in the oldest part of the analysed audience (6-8 years of age).

- Parents are key in driving marketing of games for children, especially in the younger part of the segment, as they are the main gatekeeper for content and payments.

- Monetization is a challenge with parents/kids reporting that they rarely spend money on games especially in the younger part of the target audience. This means that monetization probably needs to be carefully considered for games to be successful.

- The fact that a sizable and growing number of parents are worried about not having enough knowledge and control of their children's digital gaming habits is an important opportunity for game developers focusing on this target audience. It is also worth pointing out that parents seem to view games with more scepticism than other more traditional media. Game studios should consider this, when rolling out content and possibly try to add video content next to game content in order to cater to two needs.

- Looking at market size data from App Annie it is important that Scandinavian developers consider which other markets to target beyond Denmark, Norway and Sweden with UK and Germany being by far the biggest contributors to the overall consumer spend in the category.

6. MONETIZATION AND VALUE CALCULATIONS FOR THE DEVELOPERS

As we have seen in the previous sections of qualitative interviews and the consumer analysis, monetization in games for kids is a tricky proposition. In this section, we will try to highlight the available methods on mobile and afterwards try to do a simple value calculation with a hypothetical single game release in order to provide an estimate of the commercial potential of launching a single standalone game.

UPFRONT PAID

Paying upfront was in the early days the only way of monetizing on mobile platforms, but with **Apple's** decision to introduce in-app purchases in late 2009[21], things started changing quickly. For a long time upfront paid still remained the predominant business model for games for kids and though we don't have actual numbers on it, the overall impression is that it is still a relatively popular way of monetizing compared to other categories in the app stores, where free has completely taken over over.

From an idealistic perspective, there is certainly a high degree of ethical consciousness in creating applications that are paid up-front. It increases transparency for the parents and ensures that kids won't be exposed to predatory sale designs or accidentally end up buying a number of random in-app purchases. This perspective can also be important for branding and marketing, as was reported by one of the developers in the qualitative studies.

> *Nogle af dem der havde anmeldt Fuzzy House, ville for eksempel ikke anmelde Wonder Woolies, fordi det havde et in-app purchase. For eksempel den svenske [...] Pappas Appar, som anmelder, han anmelder ikke apps med in-app purchases.*
>
> Marianne Tietge, Fuzzy House

The mentioned review site has more than **36.000 followers on Facebook**[22] so this statement can't simply be discarded - just by choosing a business model for games aimed at kids, it's clear that you are removing parts of your audience.

The challenges of upfront paid products compared to free products become very clear however with a simple example based on market data. As can be observed from **App Annie** data of Norway, Sweden, and Denmark only a few games on the list of the highest grossing applications in 2021 are actually paid apps. The rest are free with either in-app purchases and/or subscriptions and are depending on the case maybe also utilising advertising. It is probably also not coincidental that most of these top grossing upfront paid applications are connected with very well established IP's such as **Alfie Atkins**, **Pippi Longstocking** or **Kahoot**. *(Please see the following 3 tables from App Annie)*

It is clear that free content dominates the attention of the consumers in general and specifically the parents. Furthermore, the challenge with upfront paid products is that it also hampers virality in a market, where discovery is one of the most important traits of a game. Launching a free product ensures bigger reach, where even a user that doesn't buy becomes valuable in finding a user that will maybe potentially buy.

Therefore, is clear that upfront paid products are immensely tricky in a business ruled by free. Developers should of course strongly consider their own beliefs on the best possible business model when launching games but based on the market research it's difficult to recommend upfront paid products on mobile from a commercial perspective.

21.- https://www.apple.com/newsroom/2018/07/app-store-turns-10/

22.- https://www.facebook.com/pappasappar/

APP ANNIE

DENMARK TOP KIDS APPS BY CONSUMER SPEND

Rank	Name	Company	Is Paid App?
1	Pokémon GO	Niantic	No
2	Toca Life: World	Spin Master	No
3	LEGO DUPLO WORLD	StoryToys	No
4	Bloons TD 6	Ninja Kiwi	Yes
5	Barbie Dreamhouse Adventures	Budge	No
6	LEARN ENGLISH with LINGOKIDS	Lingokids	No
7	IntellectoKids Learning Games	IntellectoKids	No
8	Sago Mini World	Spin Master	No
9	Miga Town: My World	XiHe	No
10	Rasmus Klump	Tivoli	No

Rank	Name	Company	Is Paid App?
11	Dr. Panda Town	Dr. Panda	No
12	Play ABC Alfie Atkins	Gro Play	Yes
13	Learning games for toddlers 2+	Bimi Boo Kids	No
14	World of Peppa Pig	Hasbro	No
15	Drawing for kids: doodle games	Bimi Boo Kids	No
16	Disney Coloring World	StoryToys	No
17	Albert Junior	eEducation Albert	No
18	Baby coloring book	Bimi Boo Kids	No
19	Pickatale	Wisdom Edition	No
20	Baby puzzles: shapes colors	Bimi Boo Kids	No

Source: App Annie Intelligence
January 2021 – July 2021, Combined iOS and Google Play for Denmark, Norway and Sweden
Among Publishers of Apps and Games within Ages 5 & Under and Ages 6-8 Subcategories on iOS App Store and Google Play

[Learn More About Mobile Gaming in 2021]

APP ANNIE

NORWAY TOP KIDS APPS BY CONSUMER SPEND

Rank	Name	Company	Is Paid App?
1	Pokémon GO	Niantic	No
2	Toca Life: World	Spin Master	No
3	LEGO DUPLO WORLD	StoryToys	No
4	LEARN ENGLISH with LINGOKIDS	Lingokids	No
5	Albert Junior	eEducation Albert	No
6	Poio	Kahoot!	Yes
7	Bloons TD 6	Ninja Kiwi	Yes
8	Barbie Dreamhouse Adventures	Budge	No
9	IntellectoKids Learning Games	IntellectoKids	No
10	Sago Mini World	Spin Master	No

Rank	Name	Company	Is Paid App?
11	Pickatale	Wisdom Edition	No
12	Kahoot!	Kahoot!	No
13	Miga Town: My World	XiHe	No
14	World of Peppa Pig	Hasbro	No
15	Play ABC Alfie Atkins	Gro Play	Yes
16	Bloons TD 5	Ninja Kiwi	Yes
17	Play 123 Alfie Atkins	Gro Play	Yes
18	Disney Coloring World	StoryToys	No
19	Fun English	Studycat	No
20	Drawing for kids: doodle games	Bimi Boo Kids	No

Source: App Annie Intelligence
January 2021 – July 2021, Combined iOS and Google Play for Denmark, Norway and Sweden
Among Publishers of Apps and Games within Ages 5 & Under and Ages 6-8 Subcategories on iOS App Store and Google Play

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APP ANNIE

SWEDEN TOP KIDS APPS BY CONSUMER SPEND

Rank	Name	Company	Is Paid App?
1	Pokémon GO	Niantic	No
2	Toca Life: World	Spin Master	No
3	Jaramba	Streamience	No
4	LEGO DUPLO WORLD	StoryToys	No
5	LEARN ENGLISH with LINGOKIDS	Lingokids	No
6	Barbie Dreamhouse Adventures	Budge	No
7	Bloons TD 6	Ninja Kiwi	Yes
8	Sago Mini World	Spin Master	No
9	Zcooly	Zcooly	No
10	Play ABC Alfie Atkins	Gro Play	Yes

Rank	Name	Company	Is Paid App?
11	Pippi Longstocking's Villa Villekulla	Filimundus	Yes
12	IntellectoKids Learning Games	IntellectoKids	No
13	Albert Junior	eEducation Albert	No
14	Poio	Kahoot!	Yes
15	Miga Town: My World	XiHe	No
16	Play 123 Alfie Atkins	Gro Play	Yes
17	World of Peppa Pig	Hasbro	No
18	Hocus Pocus Alfie Atkins	Hyper Games	Yes
19	Albert - Digitala matteläraren	eEducation Albert	No
20	Pickatale	Wisdom Edition	No

Source: App Annie Intelligence
January 2021 – July 2021, Combined iOS and Google Play for Denmark, Norway and Sweden
Among Publishers of Apps and Games within Ages 5 & Under and Ages 6-8 Subcategories on iOS App Store and Google Play

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FREE WITH IN-APP

As an alternative to upfront paid apps, free with in-app have become a popAs an alternative to upfront paid apps, free with in-app have become a popular business model for kids' games as well. The benefits are obvious. With no barrier of entry, it becomes a lot easier to find the needed audience, and the parents are able to try the product before deciding to buy it. There is a reason that free is the predominant business model on mobile.

The challenges however are obviously clear. Doing basic due diligence in the app store shows that not all apps and developers are taking the responsibility of making games for kids seriously. In fact, studies have found that 95% of all apps for young kids aged 5 or less contain advertising and/or manipulative purchase strategies.[23]

Both **Apple** and **Google** have tried to put systems in place to protect kids from making unintended purchases by requiring parental gates before any commercial activity within the application, but it's clear from the research that not all apps naturally adhere to this or are even located in the "Kids" category, where these more restrictive measures are enforced. It also doesn't prevent the game developer from doing manipulative tactics before the actual gate and sale. Without being able to say this for sure, there could be a natural connection between some of these problem areas and the fact that parents generally look at games in a more unfavourable way compared to other media.

It is important to underline that there are a number of examples of quality free products for kids in the market that employ a free strategy combined with transparent purchases for additional content. The key naturally is to make sure that it's obvious for the parent when downloading, what type of purchases and how many in-app purchases there potentially will be down the line. Free as a business model helps tremendously with reach and should be employed as a marketing strategy hand in hand with good monetization design.

23.-https://www.vox.com/the-goods/2018/10/30/18044678/kids-apps-gaming-manipulative-ads-ftc

FREE WITH SUBSCRIPTION

Subscriptions is actually a fairly old way of monetizing on mobile, but it's only in the recent couple of years that it has started to see traction with game developers and also specifically in popular games for kids such as Hopster[24], **Dr. Panda Town**[25] and actually most of the studios mentioned in the *Key Publishers Analysis* section of this report.

One of the reasons for its rising popularity within games is probably that audiences are familiar with the approach from other media such as tv, audio, fitness, etc.[26] In the games industry, the subscriptions-based businesses usually fall in two categories: Single game subscriptions and actual cross-product subscription services. Starting with the latter, this is being popularized by the big tech companies for example **Apple Arcade, Google Play Pass** and **Microsoft Game Pass**. These are services where the user will get access to a huge number of individual games based on a single subscription. This practice has been somewhat adopted on mobile by companies like **SKIDOS**[27] and **GameClub**[28] (though not kids related) that have tried to build a unified subscription that gives access to a number of different apps.

For solo developers, this is not an easy model to implement. It obviously requires a large portfolio of games and technically, it's a demanding solution to implement as we will explore in the subsequent section. Furthermore, it's a business model that on iOS has a lot of scrutiny from **Apple**, as reported by **GameClub** in **TechCrunch** last year.

24.- https://www.hopster.tv/

25.- https://www.drpanda.com/

26.- https://www.deconstructoroffun.com/blog/2019/9/29/heres-how-subscriptions-will-disrupt-the-games-industry

27.- https://skidos.com/

28.- https://gameclub.io/

Though Apple bans iOS apps that sell other apps, GameClub has been allowed to operate on iOS because the GameClub hub isn't its own app store. Instead, iOS users have to download the individual GameClub games directly from the App Store, where they have their own listing.

Getting Apple's approval wasn't easy though. The company says its app was rejected by Apple 127 times before launch and its Developer Account was placed under investigation for a month, during which time Apple stopped reviewing any of its submissions. [29]

While this would be technically possible to operate on Android without issues, it still has to be considered carefully by the developer studios regarding how much risk they would be willing to take with their portfolio.

The alternative model to explore for game developers would be having a single app/game subscription giving access to the content of the game as long as the subscription is active. This is by far an easier model to manage and more transparent for parents trying to find good products for their youngest kids. The upside is obvious. Instead of being dependent on a single purchase in the game, the individual consumer provides recurring value month over month - also taking some pressure off the marketing side. The monthly retention is usually dependent on continuous release of content. Content that can be expensive to create. One takeaway here is to carefully consider the technical foundation and production pipelines, when initially starting a new project - making sure that key content (characters, mini-games or similar) can be created as efficiently as possible.

To summarize, **the subscription market is growing extremely fast within video games broadly and more than 35% of all gamers already own some kind of game subscription.**[30] Game studios focusing on kids in Scandinavia could naturally experiment more with creating smaller products in scope to begin with and then have an active content update strategy that can help motivate users/parents to continue using their subscription offering.

29.- https://techcrunch.com/2020/06/18/gameclub-brings-its-subscription-based-gaming-catalog-to-android/

30.- https://www.simon-kucher.com/en/blog/global-gaming-study-future-gaming-subscription

ADVERTISING

We wanted to briefly mention advertising as a business model on mobile platforms, as it is a big part of the revenue being generated in the total market - estimated to be 17% and growing as of last year.[31] However in the case of kids, especially the youngest kids of age 1-8, this is not a business model that should be considered lightly. As mentioned earlier, advertising does exist in applications for kids and in some instances do not adhere to the restrictions made by the app stores, but it was not found in any of the applications made by the developers in Scandinavia that we reviewed.

Apple and **Google** have both tightened regulations a lot over the last few years and the former currently prohibits third-party advertising networks with a few key exceptions.[32]

Developers considering implementing advertising in games for kids should look closely at specialised services for this, such as Kidoz[33] and SuperAwesome[34] that we will discuss in more depth in the technical section of the report.

VALUE CALCULATIONS FOR THE DEVELOPERS

This short section is an attempt to offer some rough estimations on the potential upside of releasing a single game in the Scandinavian market. It is worth noting that this evaluation is very much theoretical and doesn't go into the actual realistic sales.

As we saw earlier, the relevant market in Scandinavia consists of approximately **897.000 households**. For this specific calculation, we have decided to group our target audience for the report into two groups, since it would not be realistic to sell the same game to the parent of a 1-year-old and the parent of an 8-year-old. All calculations are in DKK and based on a single in-app purchase of DKK 30, as we have found that to be an approximate typical average for either an in-app purchase or upfront payment for a single game based on the data below. This data suggests that USD 4.99 is a common pricing model for most games in the **App Store**, while the pricing models fluctuate a whole lot on Android and would make it difficult to make an overall scenario. *(Please see tables from App Annie in Pages 38 & 39)*

We have created three scenarios based on different rates of conversion to paying users. The industry average across all games would be roughly around 1-2% but varies a lot from genre to genre and game to game. Therefore we decided to include a best-case scenario of 5% to account for having reached an absolute ceiling and a very successful product.

Scenario for Age Group (1-4 years)

Free App for Kids with In-App Purchase of 30 DKK

Relevant Households	Conversion	Paying customers	Total Gross (DKK)
345,000	1%	3,450	103,500
345,000	3%	10,350	310,500
345,000	5%	17,250	517,500

Total Gross (DKK)	Platform (15%)	Developers (85%)
103,500	15,275	89,975
310,500	46,575	263,925
517,500	77,625	439,875

31.- https://venturebeat.com/2020/09/10/why-in-game-ads-have-become-the-go-to-revenue-strategy-infographic/

32.- https://developer.apple.com/app-store/review/guidelines/

33.- https://kidoz.net/

34.- https://www.superawesome.com/

35.- In this scenario defined as the total number of users that are converted into purchasing the app or in-app purchase in the lifetime of the game.

36.- This revenue percentage is based on the updated payment and billing details from 2021 on both Apple App Store and Google Play Store.

Scenario for Age Group (5-8)

Relevant Households	Conversion	Paying customers	Total Gross (DKK)
552.000	1%	5,520	165,600
552.000	3%	16,560	496,800
552.000	5%	27,600	828,000

Total Gross (DKK)	Platform	Developers
165,600	24,840	140,760
496,800	74,520	422,280
828,000	124,200	703,800

As we can clearly see from this simplied example, single games aimed at the Scandinavian market for kids will simply have a hard time generating meaningful revenue long term. The monetary results can of course be discussed but considering that this doesn't factor in production or marketing costs, the best-case scenario of DKK 439.975 for the youngest audience group and DKK 703.800 for the oldest wouldn't realistically be enough to fund the next successful games. Also underlined by the fact that the game studio would not realistically reach the entire audience group when launching.

Successful launching games for just a Scandinavian kids audience becomes almost unfeasible. Developers need to look abroad in order to create a large enough user base, or alternatively need to consider their product strategy and monetization carefully. As we have seen previously, most of the successful publishers have a large portfolio within the same IP's in order to generate revenue across the entire portfolio, reuse specific assets, or they are experimenting with higher price points, subscription models or have added advertising as an alternative revenue source.

SCANDINAVIA* TOP KIDS PAID APPS BY DOWNLOADS GOOGLE PLAY

Rank	Name	Company	Price (USD)
1	Bloons TD 6	Ninja Kiwi	$ 6.07
2	Pippi Longstocking's Villa Villekulla	Filimundus	$ 4.99
3	Bloons TD 5	Ninja Kiwi	$ 3.64
4	Toca Life: Hospital	Spin Master	$ 5.46
5	Pukkins Hus - Roligt lärande spel för barn	Inovision	$ 2.99
6	Hocus Pocus Alfie Atkins	Hyper Games	$ 4.25
7	Mini Metro	Playdigious	$ 0.99
8	Pukkins Camping - Roligt lärande spel för barn	Inovision	$ 4.81
9	True Skate	True Axis	$ 2.54
10	Incredibox	So Far So Good	$ 6.02
11	Farming Simulator 20	Giants Software	$ 6.99
12	Toca Life: Stable	Spin Master	$ 3.99
13	Toca Life: Vacation	Spin Master	$ 3.99
14	LEGO Ninjago: Shadow of Ronin	AT&T	$ 6.68
15	PAW Patrol: A Day in Adventure Bay	ViacomCBS	$ 2.96
16	Toca Life: Neighborhood	Spin Master	$ 5.35
17	Babblarna Party	Hatten Education AB	$ 0.91
18	Poio	Kahoot!	$ 18.99
19	Pettsons Inventions 3	Filimundus	$ 6.68
20	LEGO Jurassic World	AT&T	$ 4.99

APP ANNIE

Source: App Annie Intelligence
January 2021 – July 2021, Combined iOS and Google Play for Denmark, Norway and Sweden
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SCANDINAVIA* TOP KIDS PAID APPS BY DOWNLOADS IOS APP STORE

Rank	Name	Company	Price (USD)
1	Pippi Longstocking's Villa Villekulla	Filimundus	$ 4.99
2	Toca Life: Hospital	Spin Master	$ 3.99
3	PAW Patrol: Adventure Bay!	ViacomCBS	$ 2.99
4	Toca Life: Stable	Spin Master	$ 3.99
5	Hocus Pocus Alfie Atkins	Hyper Games	$ 4.99
6	Toca Life: Vacation	Spin Master	$ 3.99
7	Babbapp SVENSK	Hatten Education	$ 1.99
8	Toca Life: Neighborhood	Spin Master	$ 3.99
9	Toca Kitchen 2	Spin Master	$ 3.99
10	Toca Life: School	Spin Master	$ 3.99

Rank	Name	Company	Price (USD)
11	Toca Life: Farm	Spin Master	$ 3.99
12	Toca Life: Office	Spin Master	$ 3.99
13	BRIO World	Filimundus	$ 2.99
14	Toca Life: Pets	Spin Master	$ 3.99
15	Pettson's Inventions Deluxe	Filimundus	$ 5.99
16	My Town : Hospital	My Town	$ 2.99
17	Pettson's Inventions	Filimundus	$ 4.99
18	Toca Life: After School	Spin Master	$ 3.99
19	Pettsons Inventions 3	Filimundus	$ 4.99
20	Toca Life: City	Spin Master	$ 3.99

APP ANNIE

Source: App Annie Intelligence
January 2021 – July 2021, Combined iOS and Google Play for Denmark, Norway and Sweden
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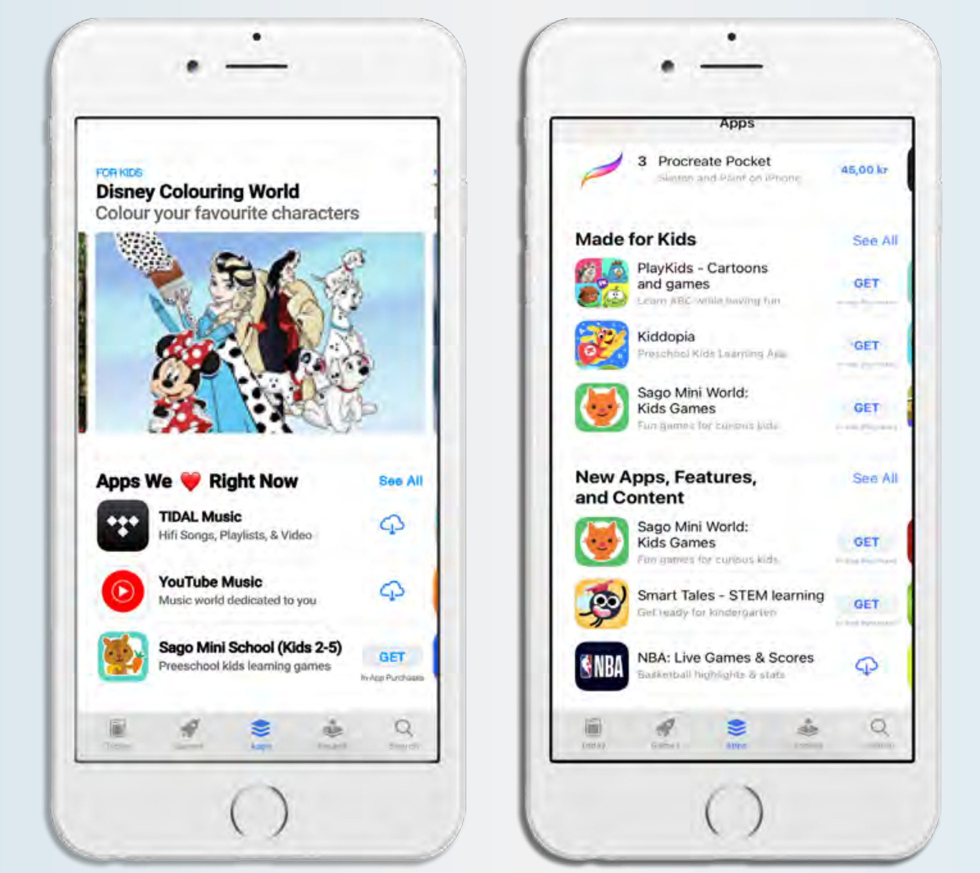
7. DISTRIBUTION CHANNELS

All major platforms have designed specific sections of their app stores for kids. This goes for both **Apple** and **Google**, but also for bigger third-party stores such as the **Samsung Galaxy Store**. The age segmentation might differ somewhat from platform to platform, but all of them have specific reviews for kids' games, tech limitations (for tracking purchases, data privacy etc.), user design requirements (e.g. parental controls) and are therefore actively promoting kids content separately from other content.

Apple launched their section for kids in the **App Store** way back in 2013, but hasn't changed it a whole lot since, keeping the same groupings and overall setup. A good way to read about best practices on their platform is through their dedicated developer portal.[37] One change that's worth noting is that it seems like Apple has made some specific choices around the way that games for kids are discovered. We can't point to when this setup was made exactly, but beyond placement in the Games category, content for kids is also featured heavily in the apps section of the App Store as seen from the pictures in the right.

While that might seem like a trivial change, it does mean that developers should consider closely how they position and market their content. Is it a game, an educational experience, or an app for kids? Games as an interactive medium can take many forms and giving this some thought to increase the chance of discovery is definitely worth it. Also considering the sentiment towards games found in some of the media reports mentioned previously, where parents generally have a lower opinion of kids using games compared to othermedia.[38] Finally, it also points out that **Apple** is actively exploring different solutions for improving the discovery of games/apps for kids in the **App Store** and are therefore contributing to making this process better for both users and developers.



App Store screenshots recorded 04/06/2021.

In this context it's important to look briefly at the distribution channels in the different app stores. As per 2020 data from SensorTower, the typical discovery is very different from a game compared to a non-game app. As seen below[39], non-games are much more frequently found through app store search compared to app referral (e.g., direct paid marketing). ***Please see the following table from App Annie).***

Though the chart is not specifically for the kids categories in the app stores, but across different genre categories for all games, it still paints a clear pic-

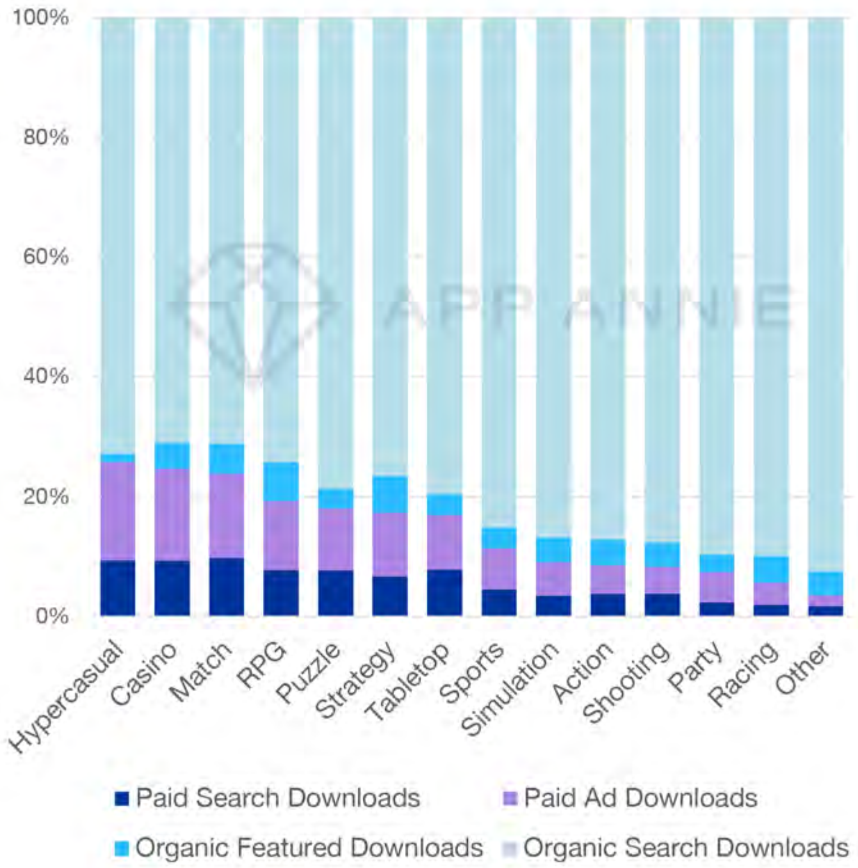
37.- https://developer.apple.com/app-store/kids-apps/

38.- For example page 45 i Småungar & medier 2019 fra Statens medieråd

39.- https://sensortower.com/blog/app-store-download-sources-report-2021

SHARE OF GAME WORLDWIDE DOWNLOADS FROM PAID AND ORGANIC SOURCES

Average of Top 100 Games By Worldwide Download Per Genre in July 2021



Genre breakdown based on App Annie Game IQ Taxonomy as of Aug 23rd 2021

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ture of search and app store discovery being a very meaningful driver for installs.

Based on the example from the Apple App Store that we just mentioned, it is debatable whether games for kids are mostly considered games or experiences (apps) by the parents. It is however clear that developers can't ignore optimising this part of their business on mobile. One strategy is of course to focus heavily on search, using a variety of keyword or ASO (app store optimization) tools to help the product being found organically rather than spending marketing budgets on expensive paid marketing. Optimising for search can be a slower process over time and usually benefits from having a bigger portfolio of games to promote, but it probably speaks to studios adapting less of a "big bang" marketing release strategy and more of a long-term audience building focus. Here the studios should focus on establishing brand first to create awareness before they add paid advertising and more specialized experimentation with store optimization

In regards to Google and the Google Play Store, the company seems to be investing heavily in kids as an audience having launched multiple initiatives for kids and families within the last year. Specifically, it's important to note that Google in 2020 created their Teacher Approved Apps Program.[40] This is a highly curated review program for app/game developers to access and going forward seems to be the de facto way to do distribution of games for kids in the Google Play Store as apps will be more thoroughly reviewed, but will also receive specific featuring, a badge to signal the appropriateness of the content and more elaborate details sections.[41] The program hasn't been rolled out globally yet, but should be monitored. Furthermore, Google has a number of available best practice courses and documentation online on how to access this program and how to specifically create content for kids.[42]

Finally, Google is clearly experimenting with device settings that are more suitable for kids and have partnered with Lenovo to create Kids Space,

40.- https://techcrunch.com/2020/04/15/google-play-adds-a-teacher-approved-section-to-its-app-store/

41.- https://developer.android.com/google-play/guides/teacher-approved-apps

42.- https://playacademy.exceedlms.com/student/path/22151?Use_locale=true which is a specific section that parents can activate on a few select devices (only Lenovo at the time of writing). Kids Space aims to be a parent-controlled environment with curated content.[43] The solution is currently being rolled out and will be interesting to watch for game developers in Scandinavia as a way to find better channels globally to reach end users.

This seems to mimic recent initiatives from Samsung for their own set of Android devices. Samsung has fairly recently rebranded their safe environment for kids as Samsung Kids[44] and are offering specific curation of games and apps for kids through this service. Coming back to the earlier point of parents specifically looking for safe content for their kids, it becomes imperative to explore more direct distribution channels like the abovementioned. This might be more selective and time consuming than just pushing your game live on the app stores, but at the same time gives access to a highly active, albeit smaller, audience. As can be seen from the website documentation, a few Scandinavian game publishers are already doing this such as Toca Boca and Filimundus.

43.- https://techcrunch.com/2020/08/31/google-launches-google-kids-space-a-kids-mode-feature-for-android-initially-on-lenovo-tablets/

44.- https://www.samsung.com/global/galaxy/apps/samsung-kids/

8. RESEARCH ON THE TECHNICAL DISTRIBUTION OPTIONS

During this report, we have discussed several times that developing games and apps for kids on the mobile platforms has a number of limitations that are controlled by the platform owners specifically. In this short section, we will attempt to give an overview of a few of the key technical challenges that developers should be aware of.

Navigating the technical guidelines on games for kids is not always easy and especially **Apple's App Store guidelines** has a review process that can create recurring problems for developers. There are certain things development teams need to keep in mind before developing and sending their apps for review.

Google Play Store and the **App Store** have different rules for their respective kids related sections but doing separate handling in the applications is almost never a preferable case. Developers should generally attempt to apply the stricter rules to have an easier manageable code base and quicker cross-platform update cycles.

Apple, as mentioned, **does not allow the use of third-party ads or analytics tools in the "Kids" category.** This means that apps in this category as well as apps intended for kids can't include third-party advertising or analytics and may also not transmit data to third parties in general. What this means in practice is that developers are not allowed to use industry standard tools like **Google Firebase**, **Unity Analytics**, **Game Analytics** or similar. Developers using specific Unity versions need to use workarounds to remove built-in functionality to pass Apple reviews. The full guidelines are available online for **Apple**[45] and **Google**[46] .

As mentioned previously, advertising in games made for kids is not gener-

45.- https://developer.apple.com/app-store/review/guidelines/#kids-category

46.- https://support.google.com/googleplay/android-developer/answer/9893335#zippy=

ally a common or acceptable practice used by the game studios that we have spoken to. However, Apple specifically is also restrictive on in-game advertising and only allows third-party contextual ads to be shown - these need to be supplied from companies that have public practices and policies in place for kids. As mentioned previously, **SuperAwesome** and are advertisement networks made for kids and claim that all their ads are manually approved and do not send personally identifiable information or device information to other parties.

Another crucial step in game development has always been iterating and improving on the product and user experience over time. For years, this approach has been used and perfected in live services, where a simple product can be made into a better and bigger product using aggregated user feedback. Of course, developers need to adjust these types of strategies when dealing with kids as an audience, where the optimization should primarily be on UX, ease of use and the performance of particular content, and not actual user retention and direct sales. Without a third-party analytics solution however, any type of maintenance and performance optimization can be difficult, but there are a few solutions developers can use instead when making games for kids:

- A self-hosted and personally created analytics system (php or other backend language) to keep the data private and on your own servers.

- A self-hosted analytics solution like **Countly**[47].

Even considering these suggestions, developers should still be very mindful of the data privacy laws in the respective territories that they are targeting and make sure that they collect proper consent from the users/parents. For example, the US have specific regulation referred to as **COPPA**[48] or the **CCPA**[49] in place and the EU naturally have the regulations around **GDPR**[50].

47.- https://count.ly/

48.- https://www.ftc.gov/enforcement/rules/rulemaking-regulatory-reform-proceedings/childrens-online-privacy-protection-rule

49.- https://oag.ca.gov/privacy/ccpa

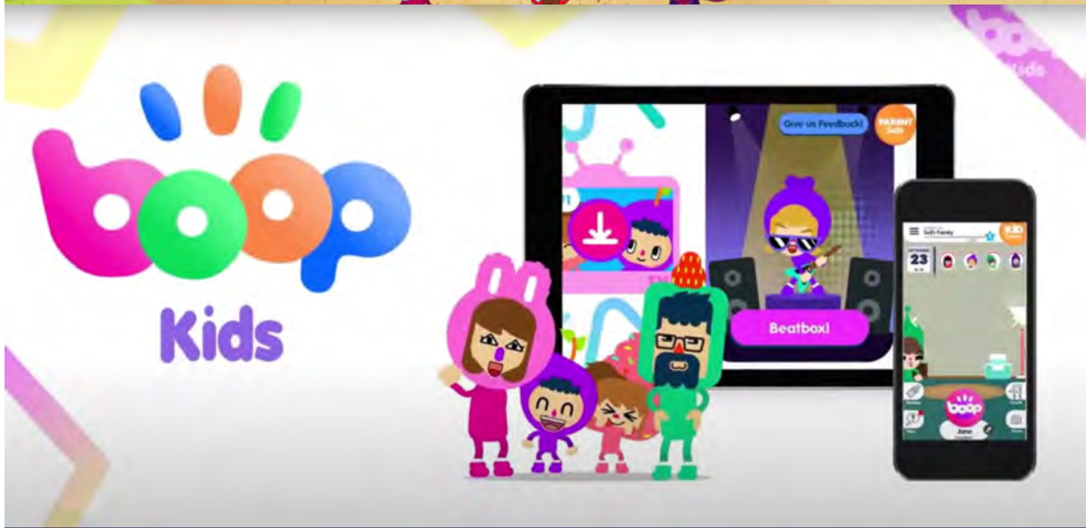
50.- https://gdpr-info.eu/

User safety and transparency is generally the most important design practice to keep in mind technically. This is for example also evident in the design requirement to include a parental gate in order to prevent kids from engaging in commerce or following links out of the app to websites, social networks, or other apps without the knowledge of their parents. A good strategy for this design feature is to randomize the combination of questions and answers each time the gate is presented to prevent kids from memorizing the responses. We have observed many different approaches, but a typical solution to this was to ask users to enter their year of birth or ask the user for a specific code written in text and not numbers to be entered as a pass code.

Another aspect worth considering is live services with new content. Adding content to an existing app has always been an important part of building your user base over time and providing recurring value for the users. Both Apple and Google want to make sure that content on their stores are safe and in their own best interest, therefore they have an approval system in place for updates and when submitting new apps. Sustaining individual applications with new content is therefore quite straightforward, but as we observed earlier relying on sales within single applications in Scandinavia can be a tricky proposition.

A number of popular applications for kids utilize what is commonly referred to as a “*mother-app*” approach. This could be, as mentioned before, DR’s Ramasjang application but other examples exist as well such as udge World, Kidomi or Boop Kids. All of these applications allow the user to load smaller HTML5 content into their version of the app. How they actually handle this technical process can be more difficult to assess, but they most likely keep the content ”locally” on the device in order to pass the actual review process to the App Store. For new developers that want to pursue the same strategy, it is important to keep the relevant guidelines in mind.

For Apple specifically: ”*Apps may contain or run code that is not embedded in the binary (e.g. HTML5-based games, bots, etc.), as long as code distribution isn’t the main purpose of the app, the code is not*



offered in a store or store-like interface". If offering HTML5 games appears to be the primary purpose of your app, then it would not be appropriate for the App Store, but this is an obvious grey zone and a judgment call from Apple's side. Many live apps are currently taking this approach without consequences but that should of course not be seen as a sign of approval.

The best and most secure way would be to have tools to download the HTML5 content and include it in the app locally and then send a build with all the needed content included through the review process as Apple intended. The more "dynamic" way would be to control all the content via a backend with links to the HTML5 content that could then be loaded in the app. If done in a foundational way you will pass the review process, but you will be in a grey zone regarding the guidelines.

Previously, we also discussed the emerging trend of subscription models, which is also one of the tricky distribution methods to handle across several apps or platforms. One of the technical approaches was specifically to use a single auto-renewable subscription across multiple apps to provide a great variety of content for the users and parents without the need to buy multiple purchases. To support this technically, the developer would need to have their own server setup and server-side receipt validation.

Apple's guidelines on this particular approach can be found here[51] but this does create problems when trying to manage subscription services across the different platforms as Apple requires developers to use their own proprietary subscription service on their platform. Allowing the users to pay for a specific service on another platform and then access it in the App Store for free has been a big legal discussion the last few years along with a number of other issues around app distribution and payments[52]. Typically in commercial games you would use a user-management backend system like PlayFab[53] for login and user handling but when making games for kids you cannot use third-party analytics systems as just discussed. This means that technically you would need to create and manage your own system, if you want to do login & user management, which is again a daunting task. Keep in mind however that a shared subscription across multiple applications in the Apple App Store could be handled without this user backend system.

To summarize, there are a number of technical constraints to keep in mind when releasing games for kids. Developers should review platform guidelines carefully and plan their technical foundation based on what their long-term plans are; Single application releases, recurring smaller HTML5-content or a long-term release strategy with a unifying subscription. Generally, if a developer is trying to manage a multitude of applications over a longer period of time, then it would be worthwhile to invest in some infrastructure for this. Managing cross-promotion, multi-app subscription services, privacy secured analytics and basic parental gates could all be integrated in the same standardized SDK, and this would theoretically be well invested time.

51.- https://developer.apple.com/documentation/storekit/original_api_for_in-app_purchase/subscriptions_and_offers/offering_a_subscription_across_multiple_apps

52.- https://www.nytimes.com/2020/09/24/technology/apple-google-coalition-epic-match-spotify.html

53.- https://playfab.com/

9. ACTION PLAN AND RECOMMENDATIONS

Following the full research covered throughout this report, we will in this action plan provide a number of high-level recommendations for the active participants in the industry. This is not a do-all list, but more a future perspective on how the commercial circumstances could be improved for both the industry as a whole as well as the individual studio.

It would be a natural next step to follow up with more research or initiatives within some of these specific recommendations, but there are also efforts mentioned below that can be taken immediately by each studio working with this particular audience.

USE OF IP AND REIMAGINING IP

Some of the most active publishers of content for kids in Scandinavia have successfully utilised existing IP from other media forms (Gro Play, Sago Mini, Filimundus) or carefully crafted their own universe and IP and style over a long period of time (Toca Boca, Bimi Boo).

As an industry, more focus and business development efforts could be spent on making the traditional media houses or IP-holders susceptible to creating new game versions of their content either in a traditional form or in a re-imagined form (such as seen by Pippi Longstocking or Moomin Valley in the last couple of years).

This was also mentioned by a couple of the studios in the qualitative interviews - it is important that these IP's are active and relevant on multiple other platforms when they are utilized by the developers.

For the developers, this is not meant to dissuade them from creating their own original universes, but it's worth pointing out that doing games with licensed IP's can also positively affect your games with their own IP as you get a sense of credibility and build trust across your entire portfolio.

> *We definitely see a positive effect across our entire portfolio of games from having worked with some popular IP's in Scandinavia. It gives us extra credibility for our own internally developed IP's.*
>
> Kristian Lundquist (CEO, Gro Play)

This also falls in line with some of the latest efforts by the **Danish Film Institute**, such as **UNIVERS**[54]. The ideal scenario here is that the specific universe would have a presence across multiple platforms and lead to more trust from the consumers.

The recommendation would therefore be to try and adapt a dual-strategy of using existing IP's commercially and combining it with smaller products with new IP to try and create a positive cross-portfolio strategy.

PRODUCT DESIGN, POSITIONING AND FUNDING

While developers certainly have enough things to consider, it is worth going into production of a new game focusing on what we will call product wrapping. Product wrapping in this context means the amount of the content and how that content is presented to the user. It's clear from the research of this report that all of the most successful publishers have a huge portfolio of games. Their individual game releases are not necessarily as deep, and they would rather split a game into two separate releases rather than pile too much content into a single app. This allows for synergy effects between multiple releases and puts less risk on the standalone game. Essentially marketing acquisition costs can be split more efficiently across a multitude of releases.

54.- https://www.dfi.dk/branche-og-stoette/stoette/univers-tvaermedielle-projekter-til-boern


FILM:/ DET DANSKE FILMINSTITUT

BRANCHE & STØTTE

> Støtte

UNIVERS – TVÆRMEDIELLE PROJEKTER TIL BØRN

DEL

Filminstituttet gennemfører i 2019-2020 initiativet UNIVERS, der skal fremme udvikling og efterfølgende produktion af tværmedielle projekter til børn i målgrupppen op til 12 år.

Formålet med UNIVERS er at fremme produktion af kvalitetsindhold til børn, der udkommer i flere formater eller på flere platforme, og som kombinerer fortællinger i traditionelle formater med fortællinger i nye formater. Et projekt skal indeholde mindst to formater. Begge de to formater forventes at indeholde levende billeder og/eller digital interaktion. Derudover kan projektet også inkludere elementer, der ikke indeholder levende billeder eller digital interaktion.

Målgruppen for produktionerne er børn op til 12 år, og der kan støttes både fiktion og dokumentar. Produktionerne kan påtænkes at udkomme på både traditionelle platforme og på de digitale platforme, som børn i stigende grad anvender, fx videodelingstjenester, Production funding opportunities (whether private or public) could also be aimed more at products that can meaningfully be split out across a variety of releases and not just a single release of a game. It is worth mentioning that this is of course mostly true for mobile platforms, where product distribution is much more immediate.

Alternatively, developers working with the youngest kids should consider the mother-app approach as mentioned regarding DR Ramasjang. Here the app serves a hybrid of content (games, video, audio) and becomes an end all solution for the parents in terms of content for kids. This approach has for example been adopted successfully by the UK publisher Hopster[55]. This approach works more naturally with a subscription approach and a recurring live operations strategy adding relevant content to the mother-app.

As we saw in the *Consumer Analysis* section, video and film serve an even more important media consumption for kids in the youngest parts of the audience, so having this as part of the offered content would be extremely meaningful and be an easy way of expanding with more recurring content. While the process of developing video content next to interactive formats is not an easy task, there are interesting options for funding this as also echoed by Simon Løvind from Spilordningen in Denmark.

> *Vi har justeret alle de filmiske støttevilkår, så alle filmkonsulenter kan støtte tværmedielle produktioner [...] Det gælder også tv-animation [...] så kan du godt støttes i at udvide med andre komponenter, apps, spil eller hvad vi nu skal kalde disse hybrider.*
>
> Simon Løvind (Redaktør Spilordningen, DFI)

There are therefore still public funding opportunities for these kinds of projects, especially if the application projects are collaborations involving parties from several types of media.

Regarding funding, it's also clear that a lot of initiatives have been set in motion from state-funded programs. Recently, NFI is for example exploring new ways of funding all types of games by going across borders to find collaborators for co-productions, and thereby at the same time potentially unlocking new markets for the game studios that are involved in the projects.

> *Fra 2021 har vi åpnet for tilskudd til co-produksjoner med norsk minorprodusent. Vi er også med i et europeisk initiativ for å løfte mulighetene for utviklere/produsenter å samarbeide med aktører i andre land og dermed også øke mulighetene til mer offentlig tilskudd. Ordningen er ikke spesielt for barnespill, men vil gjelde alle type spill. Håpet er at det kan bidra til at også flere barnespill vil nå ut i et større marked og bli mer økonomisk bærekraftige.*
>
> Kaja Hench Dyrlie (Head of Video Games, NFI)

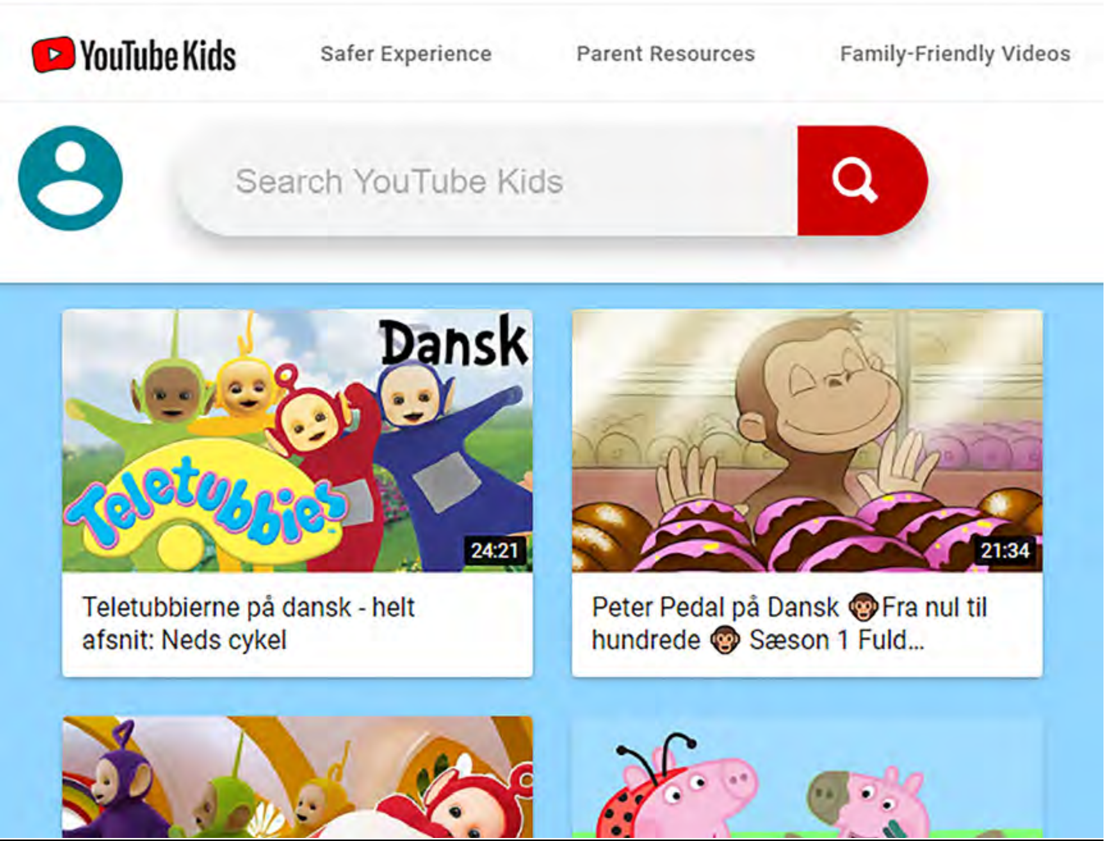
The public funding space is clearly an evolving one that will present new opportunities for these kinds of projects aimed at the youngest kids, especially if the application projects are collaborations involving parties from several media, locations, or production backgrounds.

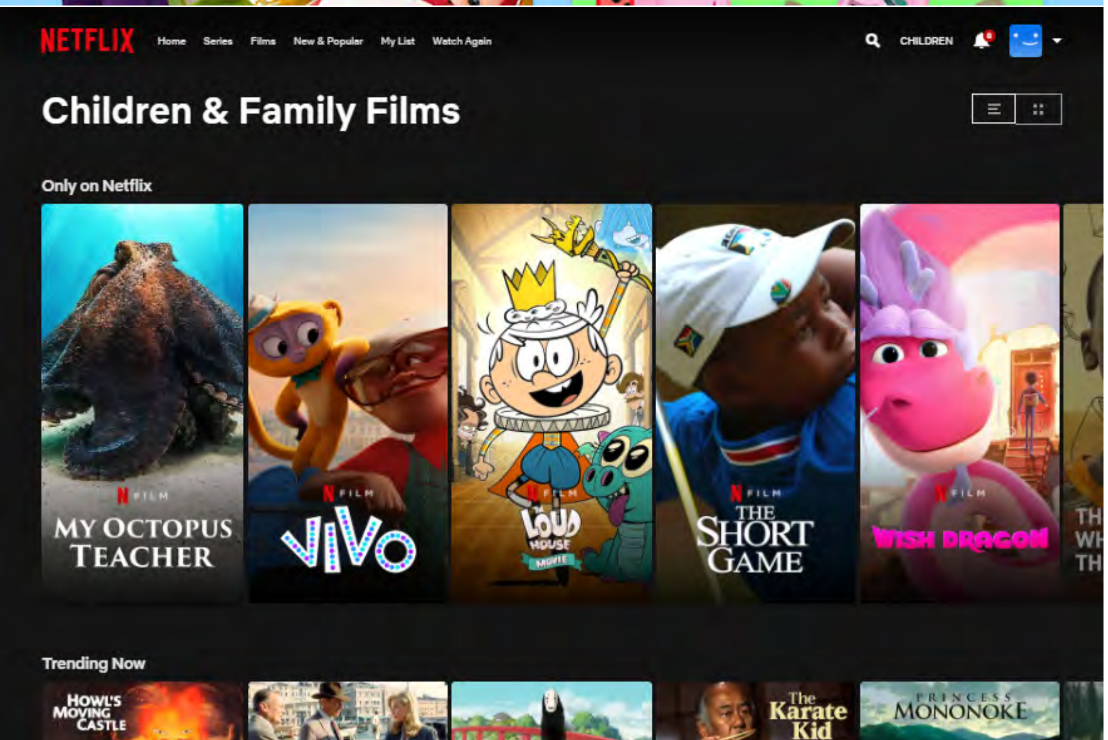
THE MARKETING SHOULD BE FOCUSED ON THE LONG TERM

It is clear from the analysis throughout this report that discovery is a challenge - especially for standalone products with no tie-in to an existing IP or other games in the portfolio. While a traditional big-splash marketing and PR launch can possibly work for a single territory, such as Denmark, it will most likely ensure an initial bump and then the product fizzles out as the branding starts to wear off, if other marketing tools are not pursued. If the studio has not generated the necessary sales, it becomes difficult to sustain the game with updates and new content and ultimately the developer has to move on.

One high level recommendation for developers going forward is to spend their release marketing efforts/budgets more on organic search discovery by using tools for ASO and similar and any direct marketing efforts on Facebook Groups or YouTube channels relevant for the parents. As YouTube

55.- https://www.hopster.tv/





and especially **YouTube Kids** is one of the fundamental pastimes for kids. This would of course work most efficiently with free + in-app products, but again remembering that a huge part of discovery still comes from search and not necessarily search for one specific brand, but also more general search such as "free kids game" etc.

Furthermore, there have recently been an actual example of a small studio from our list of Scandinavian game developers finding sudden success with alternative marketing channels such as **TikTok** – the studio in question being **Sarepta Studio**[56]. While the example mentioned here is of course for a different platform and older target audience, it goes to show that even "niche" games from indie developers can find traction with alternative release marketing.

DISTRIBUTION PARTNERSHIPS AND STRATEGIES

While this report has sought to explore the Scandinavian games market for kids specifically, it has also become clear that the developers should continue to look globally for additional audiences that might fit the games that they are making. This is simply due to the limited addressable market that we also showed in the section on value calculations.

This section is mostly to underline again the importance of exploring different distribution opportunities that are more specifically aimed at kids. While it can be difficult for a small studio to have time to pursue direct deals with various partners, it can help unlock audiences that are simply not there, if you just roll out your game/product through the regular channels.

Considering that both Apple and Google are investigating heavily in their own digital subscription services at the moment, it is worth remembering that mobile distribution is not only about pushing the ***"live button"*** on the App Store. The distribution methods are changing rapidly. Apple currently has almost no content for the youngest kids (age 1-8) on **Apple Arcade**, which again could be an opportunity for approaching them with original IP

56.- https://www.nrk.no/kultur/norske-spillutviklere-med-tiktok-suksess_-mangedoblet-salget-1.15573649 content that could be distributed through the service. Google has a few games for kids in the **Google Play Pass** but are currently not distributing a lot of content for kids through this channel, so a similar approach could be pursued there.[57]

As also mentioned previously, some of the tertiary mobile ecosystems such as **Samsung Galaxy Store or Huawei App Gallery** also serve specific content for kids that can be distributed through direct partnership deals with these companies. Furthermore, **Netflix**, one of the biggest media corporations in the world with a lot of strong IP's in their portfolio and massive distribution power is also contemplating a move into games[58]. This is by no means an extensive must do list and there are many more potential distribution partners depending on the territories that the specific developer wants to explore.

For global distribution, there are also newer services emerging such as **Kidomi**[59] that are actively trying to gather content for kids and to distribute it under a unified subscription service, but the recommendation at this point would be to firstly aim for the largest platform partners with active user bases.

This global mindset should of course also be reflected in the design and styling of the respective games. The developer should be true to their vision, when creating original IP, but doing due diligence and early user testing within the target audience on visual styles that have appeal in larger markets as well is always worthwhile for a developer.

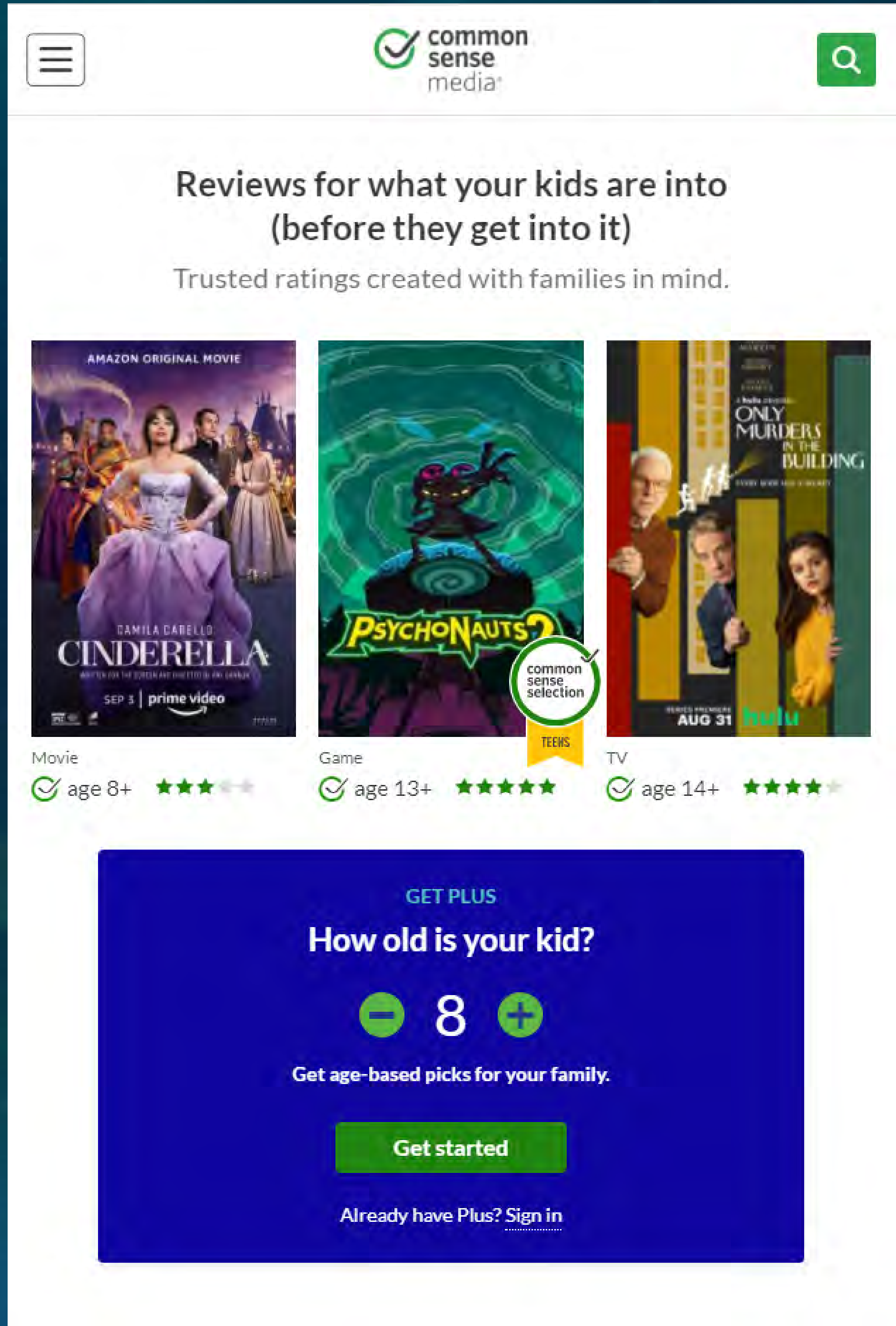
UNIFIED TAGGING AND COLLECTION OF CONTENT

One industry initiative to take could be to create a common review board and tagging of all games created for kids in Denmark or Scandinavia broadly. This could be unified in a sticker as similar to the traditional age reviewed

57.-https://play.google.com/console/about/googleplaypass/

58.-https://www.pcgamer.com/netflix-getting-into-game-development/

59 https://www.kidomi.com/



markers such as **PEGI**[60] and **ESRB**[61]. While these are already functioning systems on their own, they are mostly used for console games and do not cover specific Scandinavian content. While this solution does not solve the long-term commercial chances for the specific games, it does help bring awareness to the parents and help them navigate the ocean of different apps and games that are available on mobile. Here it would be meaningful to also look at how a media like **Common Sense Media** have managed to peer-review and curate content in the US.[62]

Furthermore, this particular project could also be adapted into an online web platform containing links and information on all releases for kids made by verified Scandinavian game developers. This would again not solve all the commercial aspects of making games for kids, but it would give a unified way for parents and media to find and evaluate content made in Scandinavia. There are obvious challenges with figuring out funding and ownership of such a venture, but it could be explored in additional research.

INDUSTRY KNOWHOW

Finally, it is of course a takeaway from this report and the specific qualitative interviews that more information sharing would be a strong addition to the Scandinavian games industry as a whole. Therefore, it could make sense to look at some or all of the following broader initiatives:

- More networking and industry events on product design, marketing and monetization for kids. Ideally, this would go across territories and it would be meaningful to introduce some of the key capacities in the very successful Swedish games industry.
- An online knowledge portal or similar with information about distribution channels, best practices and potential funding opportunities for kids content.

60 https://pegi.info/

61 https://www.esrb.org/

62 https://www.commonsensemedia.org/

Nordic Game Conference


CPH Matchup

10. APPENDIX

QUESTIONNAIRE FOR GAME STUDIOS IN SECTION 3

1. Have you made commercial games or apps for a kids segment in the mobile/tablet market (age 1-8)? Please give examples of the different titles.

2. Please describe your reasons for creating games for the kids audience? This could be due to funding opportunities, idealistic reasons, general interest in this particular market?

3. What was your overall impression and experiences with launching games for kids? For example: access to funding, complexity of production and doing end-user marketing & distribution.

4. How was your experience getting the necessary funding for your project? Either public or private money, self-funding etc.

	1	2	3	4	5	
Very Difficult	○	○	○	○	○	Very Easy

5. How was your experience launching these games in terms of marketing the games to end-users (e.g. parents) from 1 to 5? Marketing could be either featuring, PR or paid marketing.

	1	2	3	4	5	
Very Challenging	○	○	○	○	○	Very Easy

6. How was your experience launching these games in terms of monetization to end-users (paid, in-app purchases, etc.) from 1 to 5?.

	1	2	3	4	5	
Difficult to Monetize	○	○	○	○	○	Easy to Monetize

7. Have you previously done work-for-hire on games for kids (age 8 or younger) for another publisher or distributor - not necessarily a games company? Please mention the title and partner if possible.

8. Do you have experience doing work-for-hire for the state media channels focused on kids in your country (e.g. NRK Super, SVT Barn, DR Ramasjang)? Please list the specific game/app if possible.

9. Please write your definition of a good kid's game (age 8 or lower) in a few sentences?

10. In your opinion what's the most important aspect in order for you to consider releasing games for kids in the future?

   - ○ Access to more production funding (public, private) aimed specifically at games for kids.
   - ○ Better ways to license existing IP's/Brands for potential productions.
   - ○ Opportunities to work with a potential distributor/publisher that can help market the game effectively.
   - ○ More accessible industry knowhow around kids games (production, design, marketing, monetization).
   - ○ Other:

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