Summary findings

- We estimate that the global kids digital advertising market will continue to grow in excess of 20% p.a. (2018-21). We estimate the market will be worth c.$1.7bn by 2021.
- As kids’ media and content is increasingly consumed via desktop, mobile and tablet devices, we expect brands to move more advertising spend onto these digital platforms, and shift spend away from traditional (non-digital) channels.
- Additionally, increasing regulatory requirements and awareness of the benefits of compliance support a shift in spend towards dedicated ‘kidtech’ players.

- The rollout of GDPR in Europe (with its ‘GDPR-K’ kids component) has accelerated the understanding of compliance globally beyond major brands and is supporting growth in the emerging kidtech sector.
- Additionally, current activity in the US indicates that COPPA (Children’s Online Privacy Protection Act) regulation may be extended to 16 year olds (up from 13 today) and that other countries, such as China and India, are planning to legislate similar laws; these actions would expand the market size and growth trajectory, to govern the digital privacy of c.800m kids by 2021 (vs. c.130m today). We have not accounted for these extensions in our estimated market forecasts.
- Kids digital advertising spend is distributed across a range of platforms, including: kids broadcasters, VOD platforms, search engines, social media, YouTube, and a broad range of publishers/ networks.
- Over the course of the forecast period, 2018-21, we anticipate global kids digital advertising spend accompanying compliant content to overtake YouTube, growing to nearly 30% share by 2021.
Kids TV audiences are declining, as kids increasingly prefer digital alternatives.

- Despite this decline, TV still reaches a substantial portion of the U13 audience’s media time, albeit with questions around its ongoing effectiveness. As audiences volumes fall, it has become more challenging for brands to secure TV inventory during key seasonal periods (e.g. Q4).

- TV reach and effectiveness is being eroded by the fragmentation of addressable audience time across YouTube, Subscription VOD (e.g. Netflix) and games (e.g. Fortnite).

- Despite growth, kids digital channels aren’t yet considered as effective as TV in terms of influencing product sales.

**Preference for watching YouTube vs. TV, among those that watch both (UK), 2017-18**

<table>
<thead>
<tr>
<th>% of respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>100%</td>
</tr>
<tr>
<td>18%</td>
</tr>
<tr>
<td>42%</td>
</tr>
<tr>
<td>40%</td>
</tr>
</tbody>
</table>

**Source:** Ofcom, Nielsen, PwC Analysis
Kids are now one of the fastest-growing online audiences, and are spending more time online

62m

Kids (globally) went online for the first time in 2018

This is over 40% of the total net new internet users in 2018

2

Kids (globally) go online for the first time every second

1/3

of internet users globally are kids

In our 2017 report, kids were a relatively ‘hidden’ audience. In 2019, (mostly due to ongoing news stories) there is much more public discussion about digital health, privacy and content safety for kids

Hours spent weekly consuming internet by age group (UK), 2014-18

Comparatively for the adult population, weekly internet consumption has increased 18% 2014-17

Note: 1) Adult data refers to 2014-17; however, as internet consumption for 5-15 year olds was stable 2017-18 at 15 hours 18 minutes, it is comparable to adult figures - for which 2018 data is not available

Source: UNICEF, Internet World Stats, Ofcom
Growing kids online adoption is driving investment from leading technology and content platforms

Recent examples of kids-related investments made by FAANG

<table>
<thead>
<tr>
<th>Facebook</th>
<th>Amazon</th>
<th>Apple</th>
<th>Netflix</th>
<th>Google</th>
</tr>
</thead>
<tbody>
<tr>
<td>✔ Platforms</td>
<td>✔ Content Platforms</td>
<td>✔ Platforms</td>
<td>✔ Platforms</td>
<td>✔ Platforms</td>
</tr>
<tr>
<td>• FB Messenger Kids</td>
<td>• Continued investment in kids content on Amazon Prime</td>
<td>• Investment in kids and family content on new Apple SVOD service</td>
<td>• Investment in kids content (e.g. StoryBots acquisition)</td>
<td>• Platforms ✔ 3rd party tools</td>
</tr>
<tr>
<td>✔ Platforms</td>
<td>✔ Platforms</td>
<td>✔ Platforms</td>
<td>✔ Platforms</td>
<td>✔ Platforms</td>
</tr>
<tr>
<td>• Fire tablet</td>
<td>• Freetime on Kindle</td>
<td>• Increased activity with toy companies</td>
<td></td>
<td>• YouTube Kids, a dedicated AVOD offering</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Family Link</td>
<td>• Internal Project Unicorn to make services COPPA compliant</td>
</tr>
</tbody>
</table>

- When choosing tools for kids engagement, brands overwhelming consider safety and compliance, in addition to reach and engagement. Platforms with a provenance in targeting adults and meeting the requirements of adult advertisers, have up until recently been less active in updating existing or building new platforms to accommodate these priorities.
- While these businesses have all invested in tools and technology to help protect kids (e.g. parental controls), it is generally viewed that these are not always sufficient to provide 100% safety for kids.
- Increased legislation, media coverage and kidtech solutions have enabled transparency, which was not always possible previously because of the ad-hoc repurposing of adult platforms. This has in turn driven confidence in spending by brands.
Most kids content investment is being channelled into Subscription VOD platforms (not ad funded)

$2-3bn spent on high quality kids content annually by Apple, Disney, Netflix and Amazon

→ This content will be behind a subscription paywall, making it unaddressable to advertisers

→ This is significantly higher than financial investments (e.g. M&A, fundraising) in advertising-funded content

→ As more high quality kids content moves behind subscription paywalls, it could create a potential compliant kids inventory shortage in the future for advertisers, as compliant Advertising Video on Demand (AVOD) inventory becomes scarcer

83m households

watch kids and family content on Netflix globally, accounting for 60% of Netflix customers

1.7x more likely to have a VOD subscription

than the UK average if there are kids in the household

→ 1.7x more likely to have Now TV

→ 1.5x more likely to have Amazon or Netflix

Source: Industry Interviews, Variety.com, BARB

Kids Digital Media Report | 2019

PwC
The safety of kids and their data online are key concerns of parents and brands alike

Parental concerns about aspects of their child’s internet use (UK), 2018
% of parents of online 5-15 year olds, who are very/ fairly concerned

<table>
<thead>
<tr>
<th>Concern</th>
<th>Concern</th>
</tr>
</thead>
<tbody>
<tr>
<td>Companies collecting information about what they are doing online</td>
<td>50%</td>
</tr>
<tr>
<td>Damaging their reputation either now or in the future</td>
<td>42%</td>
</tr>
<tr>
<td>Giving out personal details to inappropriate people</td>
<td>41%</td>
</tr>
<tr>
<td>Pressure to spend money online</td>
<td>41%</td>
</tr>
<tr>
<td>Cyberbullying</td>
<td>40%</td>
</tr>
<tr>
<td>Content which encourages them to hurt or harm themselves</td>
<td>39%</td>
</tr>
<tr>
<td>How much time they spend online</td>
<td>37%</td>
</tr>
<tr>
<td>Online content</td>
<td>32%</td>
</tr>
<tr>
<td>Possibility of them being radicalised</td>
<td>29%</td>
</tr>
</tbody>
</table>

Source: Ofcom, Industry Interviews

Kids Digital Media Report | 2019
PwC

Which are the most important factors to consider when trying to reach kids online?

Interviewees were asked to rate the following factors:
Reach, Compliance, Safety, Scale, Trust

The top 5 factors are all safety, then reach and engagement. Safety first, then everything else

Safety and compliance, they go together. Most important, I first look at compliance and safety and who is COPPA compliant. Reach and scale also go together and are obviously important — but not to the detriment of safety and compliance

Safety is always #1. We have a belts and braces approach to safety… I think all it takes is one ad and the wrong placement and the ramifications are huge... Brand safety is always going to be an issue when reaching kids (or under 13) audiences

Note: 1) For the purposes of this report, a range of companies in the kids digital media industry were interviewed. This includes brands directly, their agencies and specialist agencies who represent a large number of kids-focused companies
Regulators are addressing these concerns with privacy-focused regulations for kids online

Since 2017, kids data privacy laws have extended from the US (COPPA) to Europe (GDPR-K), dramatically increasing the compliance footprint. Additional similar legislation is being discussed in other large markets including India and China.

### Existing or planned kids privacy regulations are varied in the age thresholds used to define the regulatory scope

<table>
<thead>
<tr>
<th>Country</th>
<th>Regulation</th>
<th>Year in effect</th>
<th>Age Range</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>US</td>
<td>COPPA</td>
<td>1999, substantially updated in 2013</td>
<td>Under 13s</td>
<td>With CCA in California and the proposed ‘COPPA 2.0’ bill in the US, it may follow the direction of travel towards a threshold of 16 years old</td>
</tr>
<tr>
<td>Europe</td>
<td>GDPR-K</td>
<td>2018</td>
<td>Under 13-16s, varies by member state</td>
<td>The minimum requirement for EU member states is to apply GDPR-K to under-13s, however many member states have extended this to under-14s, 15, 16s¹</td>
</tr>
<tr>
<td>China</td>
<td>PIS</td>
<td>Near term (est.)</td>
<td>Under 14s</td>
<td>Anticipated implementation of similar regulation in China in next 2-3 years, but not confirmed currently</td>
</tr>
<tr>
<td>India</td>
<td>PDPA</td>
<td>Near term (est.)</td>
<td>Under 18s</td>
<td>Anticipated implementation of similar regulation in India in next 2-3 years, but not confirmed currently</td>
</tr>
</tbody>
</table>

Source: UNICEF, Internet World Stats, Ofcom, Better Internet for Kids

Note: 1) Member states extending to U-16s include: Germany, Croatia, Hungary, Ireland, Luxembourg, Netherlands, Poland, Romania, Slovakia; additionally: 4 others have extended to U-15s, 6 to U-14s

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**Scope of kids digital privacy laws today**

No collection or use of Personally Identifiable Information (PII), including cookies to target adverts without parental consent and other conditions.

This means creating an anonymous environment and completely restricting behavioural advertising, retargeting, attribution and most other data-driven methodologies, which are considered standard in the ‘adult’ digital media sector.

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**More recently introduced**

Regulators are addressing these concerns with privacy-focused regulations for kids online.
It is expected that by 2021, as many as c.800m kids could be protected by regulation.

The expansion of kids privacy laws outside of Western markets would significantly increase the number of protected kids globally.

- As kids become a larger percentage of the daily internet audience, laws to protect them are expected to be passed with greater urgency.
- Kids’s digital privacy laws are reasonably standardised across the US and EU, consistently focused on tracking, anonymity and parent-focused verification.
- If new laws (under discussion) are implemented in China and India, this would increase the number of kids protected by privacy regulations to over 800m globally.

Note: 1) Where GDPR-K legislation is not yet implemented, member states are assumed to apply legislation to under-16s; 2) Personal Information Security Standard; 3) Personal Data Protection Act.

Source: World Bank, FTC, GDPR, Freshfields, Baker McKenzie, PwC Analysis

Kids Digital Media Report | 2019

PwC
Enforcement of these regulations has become more pronounced, with significant fines issued in the US

Prior to 2018, compliance breaches in the US were primarily pursued by the FTC (Federal Trade Commission). In the last two years however, individual State Attorney Generals (e.g. New Mexico, New York) have initiated separate actions.

In parallel, civil class actions have been filed alleging collection of kids’ data from apps and games. It expected that a similar pattern may follow in Europe.

The two most recent fines issued by the FTC have been the largest in history: AOL/Oath/Verizon ($5m, 2018) and TikTok ($5.7m, Q1 2019).

The FTC is now pursuing actions relating to the underlying technology stack (i.e. beyond publishers).

Additionally, in early 2019, the FTC stated it will seek to extend liability to individual executives in companies acting illegally.

COPPA enforcement actions issued for compliance breaches

Source: FTC, New York Attorney General, New Mexico Attorney General
Kids Digital Media Report | 2019
PwC
We estimate kids digital ad spend will reach $1.7bn by 2021, equating to 37% of total kids ad spend.

**Estimated global kids advertising spend, 2016-21F**

<table>
<thead>
<tr>
<th>Year</th>
<th>Total (bn)</th>
<th>CAGR 16-18</th>
<th>CAGR 18-21</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td>3.4</td>
<td>2.8%</td>
<td>2.9%</td>
</tr>
<tr>
<td>2017</td>
<td>3.4</td>
<td>(15%)</td>
<td>(3.9%)</td>
</tr>
<tr>
<td>2018</td>
<td>3.3</td>
<td>24.9%</td>
<td>21.6%</td>
</tr>
<tr>
<td>2019F</td>
<td>3.2</td>
<td>(18%)</td>
<td>(20%)</td>
</tr>
<tr>
<td>2020F</td>
<td>3.0</td>
<td>(22%)</td>
<td>(27%)</td>
</tr>
<tr>
<td>2021F</td>
<td>2.9</td>
<td>(27%)</td>
<td>(32%)</td>
</tr>
</tbody>
</table>

- **Source:** PwC Analysis
- **Kids Digital Media Report | 2019**
- **PwC**

- **We expect overall spend on global kids advertising to continue to grow at 3% p.a., broadly in line with sector growth and overall marketing budgets.**
- **We estimate that kids digital spending globally will continue growing in excess of c.20% p.a., albeit slowing slightly from c.25% p.a. from 2016-18 to c.22% p.a. from 2018-21.**
- **We expect digital to grow its share of total kids advertising spend from 15% in 2016, to 22% in 2018; reaching 37% by 2021.**
- **Note:** our market forecasts do not account for the extension of the age threshold from 13 to 16 years old in the US, which is currently supported by some legislators, nor the implementation of similar legislation in India, China or other countries. This would likely increase the size and growth of the digital segment.
There are a number of favourable (and structural) tailwinds supporting strong rates of growth

### Supportive of growth

**Total global kids advertising spend**
- Stable end-market growth (e.g. 5% growth in global toy market, 2017-22)
- Strong competition among kids brands fighting for kids demand
- Increasing population of kids

**Shift to digital**
- Consumption shift from TV to digital
- Growth in smartphone and tablet penetration/usage among kids

**Advertiser preference**
- Focus on performance marketing, where digital is more cost efficient and measurable than TV

**Digital privacy regulation**
- Broadening geographical coverage, and potential for raised age threshold, governing a larger kids population
- Emergence of supportive kidtech tools and mainstream adtech integration (e.g. viewability, fraud)
- Increasing pressure from class action lawsuits on those in breach of laws

### Potential threat to growth

- Disruption in retail value chain has impacted toy companies (who are major spenders)
- Growth of subscription (ad free) platforms
- Potential limits on kids screen time
- Lack of quality/ comparable video inventory for advertisers
- YouTube brand safety concerns

### Future outlook

- Confusion about interpretation making brands fearful of pursuing digital altogether
- No penalties yet issued by the EU

Source: Euromonitor, Industry Interviews, PwC Analysis
Kids digital advertising spend is fragmented across a range of platforms

Estimated global kids digital advertising spend, 2016-21F

<table>
<thead>
<tr>
<th>Year</th>
<th>Social (m)</th>
<th>Search (m)</th>
<th>Kids broadcasters - TV and digital bundles (m)</th>
<th>Non-compliant digital¹ (m)</th>
<th>Kids broadcasters - digital only (m)</th>
<th>VOD (m)</th>
<th>YouTube (m)</th>
<th>Compliant digital² (m)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td>600</td>
<td>750</td>
<td>936</td>
<td>600</td>
<td>120</td>
<td>66</td>
<td>72</td>
<td>66</td>
</tr>
<tr>
<td>2017</td>
<td>66</td>
<td>66</td>
<td>81</td>
<td>22</td>
<td>130</td>
<td>132</td>
<td>120</td>
<td>120</td>
</tr>
<tr>
<td>2018</td>
<td>99</td>
<td>130</td>
<td>126</td>
<td>160</td>
<td>126</td>
<td>157</td>
<td>60</td>
<td>141</td>
</tr>
<tr>
<td>2019F</td>
<td>35</td>
<td>121</td>
<td>150</td>
<td>227</td>
<td>150</td>
<td>206</td>
<td>120</td>
<td>150</td>
</tr>
<tr>
<td>2020F</td>
<td>105</td>
<td>110</td>
<td>174</td>
<td>413</td>
<td>189</td>
<td>330</td>
<td>120</td>
<td>330</td>
</tr>
<tr>
<td>2021F</td>
<td>115</td>
<td>44</td>
<td>44</td>
<td>44</td>
<td>44</td>
<td>44</td>
<td>44</td>
<td>44</td>
</tr>
</tbody>
</table>

CAGR 16-18 | CAGR 18-21
Total | 25% | 22%
Social | 25% | 16%
Search | 23% | 9%
Kids broadcasters - TV and digital bundles | 4% | -5%
Non-compliant digital¹ | 10% | 9%
Kids broadcasters - digital only | 28% | 21%
VOD | 32% | 25%
YouTube | 31% | 26%
Compliant digital² | 45% | 38%

- **Original projections** from our 2017 report appear to be broadly in line with current spending levels.
- The **biggest winners of kids digital ad spend expansion** will be compliant content, YouTube and VOD/OTT, which combined account for 55% of spend today – growing to 68% by 2021.
- Despite accounting for a decreasing share of total digital kids advertising spend, **non-compliant categories will still attract a material amount of spending**. It’s possible that expansion and/or greater enforcement of digital privacy laws could reduce this.
- Figures should not include spend on content creation (albeit some spend classified as YouTube in this analysis may include some content creation).

Note: 1) Kid’s or family content publishers using delivery technology which is not compliant with COPPA/ GDPR-K/ other kids digital privacy laws;
2) Kidtech-enabled digital content compliant with COPPA/ GDPR-K/ other kids digital privacy laws.

Source: PwC Analysis
**YouTube is the largest kids digital entertainment and advertising platform**

80% of UK kids use YouTube, making it the largest single kids digital entertainment platform, despite being a general audience platform (and not specifically designed for kids). We estimate it will account for 25% of kids digital ad spend by 2021.

**Recent YouTube trends and developments**

- **Influencers account for c.15-25% of YouTube spend**: Interviewees indicate that they are spending 15-25% of their YouTube budget on influencers.

- **YouTube is seen as a key channel, despite brand safety concerns**: Some interviewees commented that they have faced challenges ensuring brand safety on YouTube, with some brands pulling/pausing spend. Despite this, YouTube is consistently cited as a key platform for advertisers and agencies.

- **YouTube Kids has gained traction with kids, but limited support from advertisers**: In 2015, YouTube launched a kids-focused app, YouTube Kids. Despite gaining some traction with kid-users (e.g. 39% of UK kids aged 5-7 access YouTube solely via the kids app), interviewees indicate that it does not appear to have gained significant traction with advertisers and agencies.

- **Kidtech emerging to support brands advertising on YouTube**: A kidtech ecosystem is emerging to build specific solutions focused on enabling brands to advertise to kids safely and compliantly on YouTube. These are particularly focused in the area of content targeting and brand safety.

**Does your child ever use YouTube? (UK), 2018**

- Don’t know: 80%
- Does not use YouTube: 19%
- Uses YouTube: 1%

**Share of global digital kids advertising spend**

<table>
<thead>
<tr>
<th>Year</th>
<th>Non-YouTube</th>
<th>YouTube</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td>80%</td>
<td>20%</td>
</tr>
<tr>
<td>2018</td>
<td>78%</td>
<td>22%</td>
</tr>
<tr>
<td>2021F</td>
<td>76%</td>
<td>25%</td>
</tr>
</tbody>
</table>

**Source**: Ofcom, Industry Interviews, PwC Analysis

**Kidtech**

A kidtech ecosystem is emerging to build specific solutions focused on enabling brands to advertise to kids safely and compliantly on YouTube. These are particularly focused in the area of content targeting and brand safety.
Increasing spend and activity has attracted investors to the digital kids and kidtech sectors

Kidtech and digital kids investment timeline, Q4 2017 – Q2 2019

**Fundraising**
- Kinsane - $2.5m
- Shirsa Labs - $500k
- Penguin Fairytale Technology - $6.3m
- Tech Will Save Us - $6m
- Roblox - $150m

**M&A**
- PullString acquired by Apple
- Softbank and Kaga Electronics invest in Hugmo
- Rainshine takes significant stake in Kinsane
- Shoal Games acquires Kidoz - $21m
- Cinedign acquires Future Today - $60m
- Moonbug - $145m
- SuperAwesome - $13m

Note: A small selection of relevant edtech investments are included, however there has been broader investment in edtech not captured here
Source: Deals IQ, Dealogic

Historically, the kids digital sector has had a notable lack of investment, with no M&A or (public) investment from the major technology companies (or their investment arms)
Kidtech is emerging as an important technology to support brands and publishers to engage kids online.

### Kidtech Landscape

#### Advertisers
- e.g. Hasbro, Mattel, Dreamworks

#### Holding Companies
- SuperAwesome
- Yoki
- Playwire
- Kids Corp
- TotallyAwesome

#### Specialist Agencies
- Personal Information Filtering
  - SuperAwesome

#### Direct Relationships
- YouTube Ecosystem Tools
  - SuperAwesome
  - Precise TV

#### Publisher advertising tools
- Ad-serving
  - Freewheel
  - SuperAwesome

#### Publisher (content owners and platforms)
- Networks
  - e.g. Roblox, Disney, and social media platforms such as YouTube

#### Publisher user/content tools
- Identity Management
  - Privo
  - SuperAwesome

- Content Moderation
  - Twohat
  - Crisp

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*Not exhaustive*
This report is an extension to PwC’s original Kids Digital Advertising Report 2017, commissioned by SuperAwesome.

Insights in this report are generated by proprietary interviews with a range of companies in the kids digital media industry. This includes brands directly, their agencies and specialist agencies who represent a large number of kids-focused companies.

Data and insights provided in these interviews has been sense-checked and triangulated with available credible third-party data.
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