

Dimension 2: Online advertising

Suggested themes to be included into the knowledge repository:

[Aspect1: How do advertising and marketing techniques work](#)

[Aspect 2: How are advertising and marketing techniques used](#)

[Aspect 3: Children's perception and understanding of online advertising and marketing techniques](#)

[Aspect 4: Effects and impact of online advertising and marketing to children health](#)

[Aspect5: Regulatory literature in relation to advertising and marketing](#)

[Aspect 6: Educational material about digital advertising](#)

Clarke, Barbie and Svanaes, Siv "[Literature Review of Research on Online Food and Beverage Marketing to Children](#)". Produced for the Committee of Advertising Practice (CAP). Family Kids & Youth

Summary of the Literature review

A great deal of public commentary suggests that online food marketing plays a negative role in what has been described as a child obesity epidemic.

Types and techniques:

Content analysis in this area suggests **that food products high in fat, salt and sugar (HFSS) are being marketed online via websites, social networks, games and apps popular with children.** These findings have similarities with previous findings from content analyses of advertising on children's television. **Advergaming is the form of advertising that has received the most attention from researchers.** due to **the popularity of online games in general with children,** which is believed **to make advergaming a highly effective and low-cost form of advertising,** although published evidence on children's actual playing of such branded or subsidised games is scant.

Online data collection, targeted advertising, mobile advertising, location-based advertising and advertising on social networks.

Children understanding:

While earlier research focused mainly on advertisements in children's **web page design,** There is very little research **on children's understanding of new forms of data-driven advertising,** such as, **online data collection, targeted advertising, mobile advertising, location-based advertising and advertising on social networks.** Because children find it difficult to recognise more immersive forms of online marketing, research **must focus more on unconscious processing of advertising.**

Effect and impact:

Experimental studies show that online marketing techniques can influence children's brand awareness and their short-term food preferences. Particularly, studies on **advergaming** have found that children's attitude towards a brand **are positively influenced after playing a game promoting it.** An effect has also been found **on children's stated intention to request the advertised product.** Children have been found

to be **more likely to choose the advertised snack over other healthier snacks after playing the game**. Similar studies with advergames **promoting healthy eating have shown inconclusive results**.

Limitations:

- There is limited in-depth, ethnographic or longitudinal research looking **at the actual impact of online food marketing on children’s diets**, or
- Low children and parents engage with the advertising they see in everyday life.
- Need for more robust evidence **of a causal effect of online food advertising on children’s eating habits**, and for **more sophisticated methods of measuring children’s online advertising exposure**.
- **The majority of the available research has been carried out in the US**. Overall, out of **106** papers reviewed for this report, only **(18)** eighteen describe research carried out in the UK. Although the internet is global and children may see sites based or targeted from outside the UK, there are difficulties in reading across findings from other countries to the UK experience
- **Different cultural approaches, eating habits and regulatory regimes must be taken into account**.

Regulatory initiatives:

In the latter respect, the UK already **has a framework of rules to which online food marketing** is subject. Furthermore, some studies were conducted a number of years ago, when regulatory environments and corporate responsibility policies may not have fully taken ‘new’ media into account.

There is evidence from content analysis which indicates that products high in fat, salt and sugar are in some cases being advertised through new online marketing channels such as social networks and mobile apps. Given that children and teenagers are frequent users of mobile technology and social networks (and at an early age, despite some having a stated age limit of 13) there is concern that children are exposed to **additional advertising for these products**.

Aspect1: How do advertising and marketing techniques work

<p>British Heart Foundation and the Children's Food Campaign (2011). <i>The 21st century gingerbread house: How companies are marketing junk food to children online.</i></p>	<p>“The internet enables advertisers to capture children’s attention for longer periods of time compared with traditional forms of advertising. By developing integrated marketing strategies across a variety of media, including websites for children that are playful and highly interactive, companies are able to immerse children in their brands. Social media channels enable companies to build relationships on a one-on-one basis by communicating directly with children. Social sites also extend marketing messages into children’s social media feeds when they opt to</p>
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	<p>'follow' or interact with a brand – effectively expanding their reach to the child's social network."</p>
<p>Cheyne, A. D., L. Dorfman, et al. (2013). "Marketing Sugary Cereals to Children in the Digital Age: A Content Analysis of 17 Child-Targeted Websites." <i>Journal of Health Communication</i> 0(1): 20.</p>	<p>Compared to traditional marketing, online marketing is perceived to be offering children an 'immersive environment' where children are exposed to the advertised brands or products through a variety of multimedia formats, some of which allow the child to interact with the brand. Based on a content analysis of 17 websites targeted at children, researchers argued that there was a positive relationship between immersive environments and popularity and engagement. The researchers found that websites with more content and higher levels of multimedia content, interactivity and personalisation had higher visitor numbers and that children engaged for longer with the content on these websites.</p>
<p>Rideout, V. (2014). <i>Advertising to Children and Teens: Current Practices. A Research Brief.</i> San Francisco, Common Sense Media.</p>	<p>The interactive nature of the internet is believed to make children's engagement with marketing material more meaningful, entertaining and personal. Studies with children have found that interactive advertising content can establish positive brand associations.</p>

Aspect 2: How are advertising & marketing techniques used

	Marketing on websites
<p>Rideout, V. (2014). Advertising to Children and Teens: Current Practices. A Research Brief. San Francisco, Common Sense Media.</p>	<p>The overall critique of marketing to children on websites targeted at or popular with children is that the marketing material is perceived to be integrated into the overall content, thereby blurring the boundaries between entertainment and advertising.</p> <p>Marketing formats such as: banner ads, integrated videos and games, downloadable branded content, competitions, give-aways and links to social media sites are frequently used by companies to maximise exposure and engagement with the brand on websites children visit.</p>
<p>Staiano, A. E. and S. L. Calvert (2012). "Digital Gaming and Pediatric Obesity: At the Intersection of Science and Social Policy." Social Issues Policy Review 6(1): 23.</p>	<p>Websites containing entertaining and immersive content appealing to children help promote positive attitudes towards the brand rather than a specific product, potentially making the child more able to recall and request the brand over other competing brands.</p>
<p>Kervin, L., S. C. Jones, et al. (2012). "Online Advertising: Examining the Content and Messages Within Websites Targeted at Children." E-Learning and Digital Media 9(1): 22.</p>	<p>A review of Australian magazine websites targeted at children found that, in addition to banner ads, marketing messages were also included in the editorial content, such as in sponsored recipes and games, where it was suggested that children would find it more difficult to recognise advertising.</p>
<p>British Heart Foundation and the Children's Food Campaign (2011). <i>The 21st century gingerbread house: How companies are marketing junk food to children online.</i></p>	<p>To evaluate the marketing methods used by food manufacturers to promote high fat, salt and sugar products to children we developed a checklist of commonly used marketing techniques listed below:</p> <ul style="list-style-type: none"> — children represented on the website — cartoon characters including licensed or brand-owned (characters created by marketers to appeal to children) — people, personalities or celebrities whose name or image may be familiar or of appeal to children — cartoons, animations or videos — competitions, games or apps with appeal to children. — free gifts or prizes e.g. downloads or merchandise, toys or other items with appeal to children

	<p>— links to social networking websites.</p> <p>We also considered the overall presentation of the website, including the use of language intended for children or spoken by or directly to children, and the nature of the images and pictures shown. In addition we recorded the use of age verification systems. As part of the process our researcher created a child’s identity and signed up to brand websites and social networking sites, and we followed the resulting communications from companies.</p>
<p>Bucy, E. P., S. C. Kim, et al. (2011). "Host Selling in Cyberspace: Product Personalities and Character Advertising on Popular Children’s Websites." <i>New Media and Society</i> 13(8): 21.</p>	<p>A study of the use of cartoon characters to market products targeted at children online argued that the emotional attachment to animated characters that children develop may be increased by the opportunity to interact with the character through competitions and games. The authors further argue that the non-linear nature of content consumption online compared to, for example, that via the television may lead children to have a longer and deeper sense of engagement with the brand and the advertising content.</p>
	<p>Marketing to children on social networking sites</p>
<p>Garcia-Marco, L., L. A. Moreno, et al. (2012). "Impact of Social Marketing in the Prevention of Childhood Obesity." <i>Advances in Nutrition</i> 3(6).</p>	<p>Teenagers are seen to be a core demographic for social marketing as they are heavy users of mobile devices and social networks, and because they are seen to be likely to want to share experiences and material with their peers. It has also been suggested that social media should, for this reason, be used to a greater extent to promote healthier lifestyles and eating habits.</p>
<p>Harris, J. L., M. B. Schwartz, et al. (2013). <i>Measuring Progress in Nutrition and Marketing to Children and Teens</i>, Yale Rudd Center for Food Policy and Obesity.</p>	<p>A review of online marketing to children in the US found that fast-food restaurants placed 19% of all their online display advertising on Facebook in 2012. It further noted that brands such as Starbucks, McDonald’s, Pepsi and Subway had a significant presence on websites such as Facebook, Twitter and YouTube, with millions of followers and ‘likes’. Engagement tactics included posting images or videos, asking questions, hosting competitions or posting links to either company or third-party websites.</p>
<p>Wiling, C., M. Gottlieb, et al. (2013). <i>State Law Approches to Address Digital Food Marketing to Youth</i>. Boston, Public Health Advocacy Institute.</p>	<p>Promotion methods that receive criticism include asking the user to give access to personal and location-based data or requesting the user to ‘like’ the brand before being given access to content .Despite websites such as Facebook, Twitter and YouTube having an age limit of</p>

	13 or older, the authors found examples of what they argue to be child-targeted content.
	Advergames
New York Times (2011). In Online Games, a Path to Young Consumers.	Deep into one of her favorite computer games, Lesly Lopez, 10, moves her mouse to click on a cartoon bee. She drags and drops it into an empty panel, creating her own comic strip. But this is not just a game — it is also advertising . Create a Comic , as it is called, was created by General Mills to help it sell Honey Nut Cheerios to children.
Staiano, A. E. and S. L. Calvert (2012). "Digital Gaming and Pediatric Obesity: At the Intersection of Science and Social Policy." <i>Social Issues Policy Review</i> 6(1): 23.	Advergames combine two social issues associated with obesity: media use as a part of overall sedentary behaviour and exposure to marketing for unhealthy food and beverage products.
An, S. and H Kang (2014). "Advertising or Games?: Advergames on the Internet Gaming Sites targeting Children." <i>International Journal of Advertising</i> 33(3): 509	Similar to television advertising and online marketing in general, it has been found that the products and brands advertised through advergames are likely to be low in nutritional value . A recent content analysis of 131 gaming websites that are popular with children found that 22 of these contained advergames and that of these 12 contained advergames that promoted food products . The majority of these games promoted products that were high in calories and low in nutrition . 11 of the 12 websites were listed among the 20 most popular gaming websites for children.
	The effect of advergames on children's brand attitude
Panic, K., V. Cauberghe, et al. (2013). "Comparing TV Ads and Advergames Targeting Children: The Impact of Persuasion Knowledge on Behavioral Responses." <i>Journal of Advertising</i> 42(2-3): 10.	Advergames are argued to be able to create more positive emotions towards the brand or product compared to traditional advertising by integrating the logo, product, spokes-character or packaging into the dynamics of the game and allowing the child to interact with and customise these elements . Online games are known to be very popular with children, and 88% of children aged 5–15 in the UK play games on a games console or internet-enabled device and it is for this reason assumed that children will also enjoy playing advergames.
Staiano, A. E. and S. L. Calvert (2012). "Digital Gaming and Pediatric Obesity: At the Intersection of Science and Social Policy." <i>Social Issues Policy Review</i> 6(1): 23.	Due to the immersive nature of game playing , it is argued that this format allows repeated and longitudinal exposure to the brand and marketing message and previous research has suggested that increased levels of brand identifiers is linked with increased brand recognition and recall among children.
Waiguny, M. K. J., M. R. Nelson, et al. (2013). "The Relationship of Persuasion Knowledge, Identification of Commercial Intent and Persuasion Outcomes in	One of the few studies attempting to measure long-term effects did this by revisiting children who had been exposed to advergames for Nesquik two weeks later and asking them whether they had requested the

<p>Advergames—the Role of Media Context and Presence " Journal of Consumer Policy.</p>	<p>advertised products from their parents. It was found that 30% of the 149 participating children reported having asked their parents for the advertised cereal. The same study also found evidence to suggest that the narrative in the advergame influenced the children's brand beliefs. Children who had played the advergame where the Nesquik bunny was seen jumping higher after eating cereal were found to be more likely to think the product 'made you fit' compared to children who had not played the game.</p>
	<p>Peer-to-peer marketing</p>
<p>Berkeley Media Studies Group (2011). Food and beverage marketing to children and adolescents: An environment at odds with good health, Robert Wood Johnson Foundation.</p>	<p>Peers play an important role in children's socialisation process, and in the formation of ideas and attitudes. Children are frequent users of social networks and messaging services to engage and communicate with friends and family, and it is suggested that this may be used to encourage users to promote products to their friends.</p>
<p>Story, M., D. Neumark-Sztainer, et al. (2002). "Individual and Environmental Influences on Adolescent Eating Behaviour." Journal of the American Dietetic Association 102(3): 23.</p>	<p>In consumer socialisation theory this is referred to as normative peer influence.</p>
<p>Rozendaal, E., N. Slot, et al. (2013). "Children's Responses to Advertising in Social Games." Journal of Advertising 42(2-3): 13.</p>	<p>Rozendaal, Slot et al. (2013) found that children who were susceptible to peer influence or valued the opinion of their peers about brands were more likely to express a desire for the advertised brand in an advergame. However, the nature of peer influence and how it may impact purchase, product request or consumption is under researched.</p>
	<p>Mobile marketing: advertising on mobile devices, including mobile phones, smartphones and tablets. It includes text-message advertising, mobile website banners ads, QR codes and applications such as games.</p>
<p>Dahl, S., D. Low, et al. (2012). Mobile Phone-based Advergames. Australian and New Zealand Marketing Academy Conference, Adelaide, Sa, ANZMAC.</p>	<p>Much of the criticism of mobile marketing comes from a concern that these forms of communication have developed very rapidly and may currently fall outside of the remit of regulators. The authors carried out a detailed content analysis and found that a large number of food and beverage products and brands were using mobile advergames. They further argue that it is likely that children are more susceptible to these forms of marketing than adults and that these games contribute to a higher level of brand awareness among children, but it is acknowledged that no empirical evidence is available to support these claims.</p>

<p>Harris, J. L., M. B. Schwartz, et al. (2013). Measuring Progress in Nutrition and Marketing to Children and Teens, Yale Rudd Center for Food Policy and Obesity.</p>	<p>Mobile advergemes are thought to be an extension of the general advergemes technique making the games available to children and teenagers when they are not at a computer screen. McDonald’s McPlay and Wendy’s Pet Play apps are mentioned as examples of this. It is argued that unhealthy food products are more likely to be promoted using mobile marketing techniques such as apps which are considered likely to appeal to children and teenagers (Harris, Schwartz et al. 2013).</p>
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Aspect 3: Children’s perception and understanding of online advertising and marketing techniques

<p>Clarke, Barbie and Svanaes, Siv “Literature Review of Research on Online Food and Beverage Marketing to Children”. Produced for the Committee of Advertising Practice (CAP). Family Kids & Youth</p>	<p>Previous research has shown that children are able to understand the persuasive intentions of television advertising from a fairly young age (although there is some debate about precisely when this occurs). When it comes to digital advertising, however, the issue can be more complex. It is hard to imagine that a child playing a game on a branded website or receiving unsolicited marketing emails will not recognise that there is some commercial intent here. Yet the situation is not always so clear. Much of this advertising is ‘embedded’, or inextricable from other content: the fact that this is indeed a commercial appeal, created by an advertiser or a company, is not always evident. In the case of viral marketing or social media advertising, the origin of the message is not always clear. Such techniques may therefore prove misleading in ways that are different from traditional advertising: put simply, it may be that people are trying to sell us things without us recognising that this is what they are doing. (p.13)</p>
<p>Clarke, Barbie and Svanaes, Siv “Literature Review of Research on Online Food and Beverage Marketing to Children”. Produced for the Committee of Advertising Practice (CAP). Family Kids & Youth</p>	<p>As this report shows, there is very little evidence on whether children (or people in general) are actually misled by these kinds of techniques. Marketing techniques are undoubtedly changing; but equally, people’s awareness of those techniques is also likely to be changing, not least because of the large amount of public and media commentary on the issue. It is hardly surprising if people are not aware of marketing techniques that are new and less widely understood; but the effectiveness of such techniques is likely to change once they do become aware of them. In this respect, studies showing that children do not</p>

	<p>understand new digital techniques are not especially significant: what we need to know is how they understand them once they have become common practice. It may be true today that children (like adults) have less understanding of some aspects of digital and online marketing than they do of television advertising; but it is less likely that this will be the case in five years' time.</p>
<p>Roedder-John, D. (1999). "Consumer socialization of children: A retrospective look at twenty-five years of research." <i>Journal of Consumer Research</i> 26(3): 31.</p>	<p>Roedder-John (1999) used Piaget's model of child development to create a theory of childhood consumer socialisation. Following Piaget, John argued that children pass through three stages of development: the perceptual stage (3–7), the analytical stage (7–11), and the reflective stage (11–16); and it is not until this final stage that children reach a sophisticated understanding of advertising. Children's limited understanding of how advertising communicates and the intent behind it will, according to John, make children more vulnerable to its effects.</p>
<p>Donohue, T., L. Lucy, et al. (1980). "Do Kids Know What TV Commercials Intend?" <i>Journal of Advertising Research</i> 20(5): 58.</p>	<p>Although it is acknowledged that acquiring advertising literacy is a gradual process, there has been significant debate about the age at which children acquire mature levels of advertising literacy, particularly since the development of online marketing. Research has previously pointed to evidence that children can recognise an advertisement as different from a television programme around the age of seven or eight as an indication that this is when children have acquired advertising literacy.</p>
<p>Oates, C., S. Li, et al. (2014). <i>Becoming Knowledgeable Consumers: The Ability of Young Children to Recognise When They Are Being Targeted by Marketers in Different Media.</i> Child and Teen Consumption Conference. Edinburgh, Scotland.</p>	<p>It has been pointed out that there is a difference between recognising an advertisement and understanding its persuasive role and how it is communicated. More recent research, particularly research on newer marketing formats such as advergames, product placements, endorsements and viral marketing, has shown that a mature understanding of persuasion tactics is not acquired until children are much older, often during adolescence.</p>
<p>Waiguny, M. K. J., M. R. Nelson, et al. (2013). "The Relationship of Persuasion Knowledge, Identification of Commercial Intent and Persuasion Outcomes in AdvergAMES—the Role of Media Context and Presence " <i>Journal of Consumer Policy.</i></p>	<p>It has also been highlighted that having advertising literacy does not necessarily mean children will identify advertising, especially if the persuasive intent is more embedded or if the child is distracted, for example, by the entertaining nature of the content.</p>

<p>Redondo, I. (2012). "The Effectiveness of Casual Advergames on Adolescents' Brand Attitudes." <i>European Journal of Marketing</i> 46(11/12): 18.</p>	<p>A study with Spanish adolescents found that negative reactions towards brand placements in a game could reduce positive effects of brand attitude but little similar research has been carried out with children.</p>
<p>Ofcom (2014b). <i>Children and Parents: Media Use and Attitudes Report</i>. London, Ofcom.</p>	<p>There is little evidence of how children perceive online advertising, although it is likely that attitudes towards advertising could significantly impact its effectiveness. The report from Ofcom published October 2014 indicates that children increasingly dislike advertising online. 31% of 8-11 year olds and 46% of 12-15 year olds in the survey said there were too many adverts on the internet and this is an increase from 22% for 8-11 year olds and 35% last year.</p>
<p>Martinez, C., G. Jarlbro, et al. (2013). "Children's Views and Practices Regarding Online Advertising." <i>Nordicom Review</i> 34(2): 16.</p>	<p>A small study with nine and ten-year-old Swedish children asked children how they felt about advertising online and explored their strategies for avoiding advertising they did not like. The authors argue that these children were mostly sophisticated internet users and had strategies to avoid unwanted advertising. The children were either mostly negative or ambivalent towards advertising. The children who were negative towards advertising said they found advertising which interrupted what they were doing very annoying, for example, when watching videos on YouTube. They avoided the adverts either by looking away or using the time to do something else; similar to the way in which they would avoid advertising on television. However, children were entertained by some of the advertisements they had seen, predominantly the ones they found funny or that included animals or cartoon spokes-characters. More research exploring children and young people's attitudes to advertising across different markets would be beneficial in gaining a more nuanced understanding of the role marketing plays in children's lives.</p>
<p>Kelly, L., G. Kerr, et al. (2010). "Avoidance of Advertising in Social Networking Sites: The Teenage Perspective." <i>Journal of Interactive Advertising</i> 10(2): 12.</p>	<p>In this qualitative study the teenagers mostly claimed to not notice banner ads and argued that they were capable of 'mentally filtering' them out. They did, however, admit to liking advertising they could engage with, or that relieved them of boredom, such as games. The teenagers had little understanding of the connection between their personal data and the advertising they saw. Since this study was published in 2010, when it could be argued there was less public awareness of personal data, this may have now changed. The participants admitted to playing branded games on social networks but did not perceive them as</p>

	<p>advertisements. It is argued that these teenagers generally saw themselves as empowered consumers capable of limiting their exposure to or influence by marketing.</p>
<p>An, S., H. S. Jin, et al. (2014). "Children's Advertising Literacy for Advergimes: Perception of the Game as Advertising." <i>Journal of Advertising</i> 43(1): 63.</p>	<p>An, Jin et al. (2014) argue that the embedded nature of online advertising formats such as advergimes might in fact fall outside of what children traditionally consider advertising. In a pilot study of a questionnaire aimed to measure children's awareness of the extent of advertising on websites they frequently visited.</p>
<p>Shin, W., J. Huh, et al. (2012). "Developmental Antecedents to Children's Responses to Online Advertising." <i>International Journal of Advertising</i> 31(4).</p>	<p>Shin, Huh et al. (2012) found that children only thought of banner ads as advertising and did not mention more integrated marketing forms such as advergimes, viral marketing or branded communities on social networks.</p>
<p>Kunkel, D. (2010). "Commentary: Mismeasurement of children's understanding of the persuasive intent of advertising." <i>Journal of Children and Media</i> 4(1): 9.</p>	<p>During the development of advertising literacy children will understand 'selling intent' before they understand 'persuasive intent' and 'source bias'. This means that children will understand that someone is trying to sell them something before they understand that a message may be trying to persuade them and that this will shape the form of communication (Owen, Patterson et al. 2011). This is particularly relevant for advertising formats that are not clearly selling a specific product.</p>
<p>Owen, L., C. Lewis, et al. (2013). "Is Children's Understanding of Nontraditional Advertising Comparable to Their Understanding of Television Advertising? ." <i>Journal of Public Policy & Marketing</i> 32(2): 12.</p>	<p>Experimental studies have shown that children's understanding of online advertising matures at a much later age compared to their understanding of television advertising. They have also shown that children's understanding of integrated marketing techniques such as product placements, endorsements and advergimes develops later than their understanding of stand-alone advertising.</p>
<p>Ofcom (October 2014). <i>Children and Parents: Media Use and Attitudes Report</i>. London, Ofcom.</p>	<p>There is little research on children's understanding of newer marketing formats such as mobile marketing, social marketing and online behavioural advertising. A recent report by Ofcom (2014) however found that only one in three children between 12 and 15 who use a search engine understand which Google results are sponsored or paid for. Among children 8-11 only 13% are able to identify the sponsored links. The report also found however that 56% of children 12-15 say they are aware of personalised advertising (after being shown a description of what this is). 34% of children say they are not aware websites could use information in this way.</p>

Aspect 4: Effects and impact of online advertising and marketing to children health

<p>Sandberg, H., K. Gidlöf, et al. (2011). "Children's exposure to and perceptions of online advertising." <i>International Journal of Communication</i> 5: 29.</p> <p>Holmberg, N., H. Sandberg, et al. (2014). "Advert Saliency Distracts Children's Visual Attention During Task-Oriented Internet Use." <i>Frontiers in Psychology</i> 5(51).</p>	<p>Unconscious effects of advertising</p> <p>Studies with Swedish teenagers using eye-movement tracking and in-depth interviews found that food and beverage advertising received more attention than other forms of advertising. The researchers suggest that this may be due to the perceived relevance of affordable and accessible food items compared to some of the other products and services that were advertised to them. It was further found that teenagers had a low awareness of the amount of advertising they had actually seen, and that they frequently understated that amount.</p>
<p>An, S. and H Kang (2014). "Advertising or Games?: Advergaming on the Internet Gaming Sites targeting Children." <i>International Journal of Advertising</i> 33(3): 509</p>	<p>In this study, exposure to advergaming promoting HFSS products among children 7–12 years old was linked with increased consumption of HFSS products in general, not just the advertised brands or products. This study also found that children who were exposed to advergaming promoting fruit subsequently consumed more fruit, but not at the expense of HFSS foods. In other words, children who played advergaming promoting either healthy or unhealthy foods consumed more snacks than children who played games promoting non-food related products or did not play advergaming at all. An and Kang (2014) has argued that the impact of advergaming for unhealthy food products is potentially twofold: on the one hand these games promote the advertised brand or product, but on the other hand they also promote a type of food and eating habits that are nutritionally at odds with a recommended child diet.</p>
<p>Rifon, N.J, E.T Quilliam, H. Paek, L.J Weatherspoon, S. Kim and K.C. Smreker (2014). Age Dependent Effects of Food Advergame Brand Integration and Interactivity. <i>International Journal of Advertising</i>. 33(3): 475.</p>	<p>Similarly, a recent American study found that after exposure to a cereal advergame, the younger children in the sample (5-7) were more likely to have positive expectations of the advertised brand's taste and to believe that eating the advertised cereal would make them healthy. The authors express concern over the potential impact advergaming for unhealthy food products could have on younger children's perception of the nutritional quality of the product.</p>
<p>Friestad, M. and P. Wright (1994). "Persuasion Knowledge Model: How</p>	<p>The mediating effect of advertising literacy</p> <p>According to the Persuasion Knowledge Model the knowledge consumers have about marketers' motives and tactics helps them identify how, when and why</p>

<p>People Cope With Persuasion Attempts." Journal of Consumer Research 21(1): 30.</p>	<p>advertising is trying to influence them. As a result, they are more capable of defending themselves against unwanted influence.</p>
<p>An, S., H. S. Jin, et al. (2014). "Children's Advertising Literacy for Advergimes: Perception of the Game as Advertising." Journal of Advertising 43(1): 63.</p>	<p>In one study with 7–9-year-olds (An, Jin et al. 2014), the children's persuasive awareness was significantly improved by exposure to an advertising literacy programme previous to playing the advergime. These children also expressed greater detachment from and criticism towards advertising in general, but no changes to specific brand response or attitude was observed. Another study found that children who were able to identify advergimes as advertising were less likely to request the advertised product</p>
<p>Panic, K., V. Cauberghe, et al. (2013). "Comparing TV Ads and Advergimes Targeting Children: The Impact of Persuasion Knowledge on Behavioral Responses." Journal of Advertising 42(2-3): 10.</p>	<p>Several other studies have, however, found that advertising literacy had no impact on attitude changes or purchase intent after exposure to advergimes. Children's inability to retrieve and apply persuasion knowledge as a defence against advertising effects can be explained by the highly enjoyable nature of advergimes and affective nature of communication, as well as the persuasive intent behind advergimes being more complicated for children to fully comprehend.</p>
<p>Waiguny, M. K. J., M. R. Nelson, et al. (2013). "The Relationship of Persuasion Knowledge, Identification of Commercial Intent and Persuasion Outcomes in Advergimes—the Role of Media Context and Presence " Journal of Consumer Policy.</p>	<p>It is suggested that advertising disclaimers or ad breaks may help children understand the persuasive intent behind advergimes and other forms of online marketing, but acknowledged that more research is needed to confirm this.</p>
<p>Dual processes of communication</p>	
<p>van Reijmersdal, E. A., E. Rozendaal, et al. (2012). "Effects of Prominence, Involvement and Persuasion Knowledge on Children's Cognitive and Affective Responses to Advergimes." Journal of Interactive Marketing 26: 10.</p>	<p>It is argued that much of online marketing content relies on implicit rather than explicit communication, which will make it more difficult for children to consciously recognise persuasive intent and, therefore, limit the effect of the advertising.</p>
<p>Rozendaal, E., M. A. Capierre, et al. (2011). "Reconsidering advertising literacy as a defense against advertising effects." Media Psychology 14(4): 21.</p>	<p>While conscious processing is associated with high levels of elaboration of the content, for example a direct television advertisement where the benefits of the advertised products are listed, unconscious processing is associated with affective responses and little elaboration of the content. The selling intent in these cases is less clear and the advertising message focuses more on attitude change. Due to the perceived reliance on implicit persuasion and the following effects on children's attitudes, it is suggested that research must focus on how children process this information</p>

	and how they can be prompted to retrieve critical understanding of persuasive intent.
van Reijmersdal, E. A., E. Rozendaal, et al. (2012). "Effects of Prominence, Involvement and Persuasion Knowledge on Children's Cognitive and Affective Responses to Advergimes." Journal of Interactive Marketing 26 : 10.	It is argued that if children find online advertising more difficult to recognise and understand research should focus on the effects of unrecognised advertising .

Aspect 5: Regulatory literature in relation to advertising and marketing

British Heart Foundation (2014). " Briefing: Junk food marketing to children campaign "	<p>ACTION NEEDED</p> <ul style="list-style-type: none"> • Introduce consistent and effective regulations to protect under-16s across all forms of media. The new regulations should: • Include all marketing techniques. • Distinguish between healthy and unhealthy products using a validated nutrient profiling model. • Establish a means of determining whether a product or promotion is targeting children. • Move the responsibility for developing, monitoring, and evaluating advertising regulations to a body independent of the advertising industry.
The Advertising Standards Authority (ASA) & the Committees of Advertising Practice (CAP) CAP Consultation (Regulatory statement) (2017) ¹ : Food and soft drink advertising to children Regulatory statement	<p>How food and drink should be marketed to children in broadcast media.</p> <p>The Advertising Standards Authority (ASA) will begin to enforce the new restrictions from 1 July 2017. In line with its proposals, CAP will introduce a new placement restriction and make amendments to existing rules on the creative content of advertising. The rules will:</p> <ul style="list-style-type: none"> • Prohibit HFSS advertising from appearing in children's media (children defined as being under 16); • Prohibit HFSS advertising in other media where children make up a significant proportion of the audience; • Prohibit brand advertising (including, branding such as company logos or characters) that has the effect of promoting specific HFSS products, even if they are not featured directly;

¹ The Advertising Standards Authority (ASA) is the UK's independent regulator of advertising across all media. They apply the Advertising Codes, which are written by the Committees of Advertising Practice (CAP)

	<ul style="list-style-type: none"> • Apply to all media, including advertising in online platforms like social networks and techniques such as advergames; • Use the Department of Health (DH) nutrient profiling model to differentiate between HFSS and non-HFSS products; and • Allow advertisements for non-HFSS products to use promotions and licensed characters and celebrities popular with children to better promote healthier options.
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Aspect 6: Educational material about digital advertising

<p>Media Smart resources for teachers http://www.mediasmart.org.uk/resources.php</p>
<p>Media Smart resources for parents http://www.mediasmart.org.uk/parents-media-literacy.php</p>
<p>Media Smart games for kids http://www.mediasmart.org.uk/kids.php</p>
<p>The Canadian MediaSmarts http://mediasmarts.ca/</p>
<p>The American Admongo http://www.admongo.gov/</p>