Analyzing advergames: active diversions or actually deception. An exploratory study of online advergames content

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Abstract

Purpose – *The purpose of this paper is to review the nature of advergames and the rhetoric versus reality of their claimed effects and effectiveness, focusing specifically on their use by children.*

Design/methodology/approach – *A content analysis of major web sites that are likely to have particular appeal to children and an evaluation in order to determine whether the material contained in these sites would be permitted if similar codes of practice, as for other media, would be applied to internet sites.*

Findings – *The paper finds that the majority of web sites do not comply with the existing broadcasting codes of practice for mainstream advertising.*

Research limitations/implications – *The study is exploratory in nature and the sample size limited.*

Practical implications – *As the paper suggests that advertisers should critically examine the content of their web sites and open the debate about what constitutes acceptable online behavior.*

Originality/value – *The paper offers insights about the content of advergames in practice and the potential problems associated with regulation of advertising in different media forms, especially new and evolving media forms.*

Keywords *Advertising, Video games, Children (age groups), Internet, Regulation*

Paper type *Research paper*

Introduction

Advergames represent a fast growing, controversial and poorly understood form of marketing communication. There is a lack of integrated theoretically-grounded research regarding the effects and effectiveness of advergames on any group, let alone children, yet there are calls for regulation or restriction on the activity. Underpinning sound public policy and decision-making is informed debate, therefore the primary objective of this paper is to present an analysis of the issues being debated, together with the available evidence on the impact of advergames on children in order to help illuminate and stimulate the discussion on how society should identify and address any potential detrimental effects. We therefore review the scant extant body of literature and place the limited body of available empirical data within a theoretically-grounded framework in order to guide future work in this area.

We firstly review the nature of this new medium and the advantages it is claimed to offer over conventional advertising forms. We also review the concerns reported in the consumer literature regarding the effects of advergames on game players and examine evidence put forward to support the claims made. Existing broadcasting codes of practice for mainstream advertising are then used to evaluate the content of web sites that are likely to have particular appeal to children in order to determine whether the material contained in these sites would be permitted if similar codes of practice were applied to electronic communications. We highlight managerial and policy maker implications such as evidence that would justify any potential regulatory mechanisms. We conclude with a detailed research agenda designed to address the current empirical research void.

Advergames: what are they?

Advergames represent a rapidly evolving sector comprising embedded commercial messages within the content of retail-accessible video games and on-line electronic games. The sector is a reflection of the growing blurring between entertainment and persuasion (Grigorovici and Constantin, 2004; Shrum, 2004). Branded products or services are frequently an integral component of the game itself. Advergames appear to have evolved in response to low click-through rates for conventional web advertisements such as banner ads (Kretchmer, 2004). The aim is to offer entertainment and to engage web or electronic game users in order to make an emotional connection between the game and the brand featured within it.

Advergames provide virtual interaction with a product or a brand name (Arnold, 2004). The sector has shown extremely high growth; Lindstrom (2005) suggests computer games generate double the revenue of the film industry. While the perception is that videogames are the domain of children and teenagers, their appeal is considerably wider. A total of 95 percent of teenage boys play videogames, however only 45 percent of all videogame players are under 18 years of age (Banerjee, 2004). The focus of this paper is specifically on children as they are seen as particularly vulnerable to persuasive messages due to their lack of cognitive skills (Moore, 2004; Roedder-John, 1999). In addition, children have high levels of access to electronic media, with more than 75 percent of children aged 7-16 having access to the internet (Clarke, 2002). Moore (2004) suggests that 98 percent of children's web sites permit advertising and that advertising income is the main revenue source for two-thirds of these sites. Further, she suggests that approximately two-thirds of children aged 5-14 who access the internet do so specifically to play games.

What are the advantages of advergames over more conventional advertising forms?

The interactivity and elective involvement of advergames makes them different from more static internet advertising forms such as banner and pop-up advertising, whose initial promise as advertising vehicles has not been fulfilled (Deal, 2005; Dahlen et al., 2003).

Games allow different levels of brand promotion, from passive placement of product in background scenes to the product being an integral part of the game itself, as in car racing games in which the cars are fully branded and shown in accurate detail (Moltenbrey, 2004; Chen and Ringel, 2001).

Part of their appeal for advertisers is the prolonged brand exposure opportunities that the gaming environment offers. Gunn (2001) reports that children may play a game 100 or more times; for adults, Nelson et al. (2004) suggest that adults may spend up to 30 hours in total playing one specific game; creating different experiences each time the game is played. The repeated use of specific games does seem to have an impact on recall of the sponsors' advertising; Grigorovici and Constantin (2004) report that 30 percent of in-game ads are recalled in the short-term and 18 percent in the longer-term.

Part of the appeal of games for players may lie in simple enjoyment, a major, yet surprisingly under-researched, part of media use, yet it is surprisingly under-researched (Nabi and Krcmer, 2004). Enjoyment, according to disposition theory, often results in strong feelings, or affective disposition that may be positive or negative regarding specific characters or situations portrayed (Raney, 2004). Involvement with specific media such as television programs may impact on the construction of social reality (Shrum et al., 1998; O'Guinn and Shrum, 1997). It may also impact on the perception of advertising messages within the media (Hirshman and Thompson, 1997).

The exact mechanism by which these effects occur is not well understood. While Lee and Lee (1995, p. 19) suggest that television can passively aid in mood elevation ''as a kind of valium'', Green and Brock (2000) posit a more active role via transportation theory, in which individuals using any media, including print, may be absorbed or transported into the narrative world portrayed. Among children and adolescents, media usage may play a major role in social identity formation and reinforcement (Dotson and Hyatt, 2005; Harwood, 1999). Ritson and Elliott (1999) extend this to suggest that both media content and advertising may play a role in social identity through shared knowledge and interpretations. Their analysis

focused on traditional mass media; we are unable to locate any studies that have examined the impact of electronic media on social identity.

Relevant theoretical foundations for understanding the effects of advertisements embedded within advergames

Raney *et al.* (2003) draw on the persuasion knowledge model (Friestad and Wright, 1994), itself drawing from earlier studies of physiological reactance (Brehm and Brehm, 1981) to predict that conscious knowledge of the persuasive intent behind a communication generates resistance to the message itself. When consumers recognize and attempt at persuasion, the message is processed differently than when there is no recognized persuasion occurring. This theory may explain why intrusive types of web advertising such as banner and pop-up ads have not been successful (Edwards *et al.*, 2002). Thus, if game players are not aware of ads embedded within the games they play, their defenses are predicted to be lower and they will process communication differently to the way in which they would if they had been aware of the persuasive element (Raney *et al.*, 2003).

Concerns regarding non-conscious processing of persuasive communications are linked to early research into subliminal advertising. The first reported research study (Packard, 1957) into the effects of subliminal advertising reported substantial sales increases when messages to ''drink Coca-Cola'' and ''eat popcorn'' were projected very quickly onto movie screens (Rogers and Seiler, 1994). The findings were used by consumer advocates to support attacks on the advertising industry's tactics (Packard, 1957; Keys, 1973). Books released by these two authors appear to have had ongoing influence on the perception of subliminal advertising as a powerful persuasive tool. A total of 75 percent of the American population are reported as believing that subliminal advertising is routinely used by the advertising industry (Rogers and Seiler, 1994) and that it works, in spite of substantial evidence to the contrary (Rosen and Singh, 1992). What is not well known is that the original experiments have long been discredited (Beatty and Hawkins, 1989; Moore, 1982) and in fact there is evidence that the results of the experiments had been fabricated. A number of studies have been conducted in an (unsuccessful) endeavor to replicate the original findings (Rogers and Seiler, 1994).

The conclusion appears to be that any effects from subliminal messages were small and unlikely to impact actual behavior. More recently, Aylesworth *et al.* (1999) confirm that the effects appear to be small and indirect, impacting on attitudes towards brands, not on the cognitive but rather the affective component of attitudes. Part of the challenge of research into the impact of subliminal messages has been determining the perceptual threshold for a stimulus. Not only does this threshold, or limen, vary substantially between individuals, it also varies within each individual across time (Moore, 1982). However, stimuli that are not directly attended to are not necessarily subliminal (Moore, 1982, p. 40).

What are the concerns?

The principal concerns relate to the perceived deceptive nature of embedded advertising material that is not clearly identified as a persuasive message (Banerjee, 2004; Hertz, 2002; Keaty *et al.*, 2002; Balasubramanian, 1994). Bray (2004) stresses that children in particular may be unable to identify or evaluate the material; coupled with their lack of cognitive or critical thinking skills, children may therefore be particularly vulnerable to persuasive communications (Moore, 2004). Greenbaum (2003) posits that consumers have the right to know that content includes advertising and that the material should therefore be labeled as such. This may be particularly relevant in an increasingly time-poor society (Clarke, 2002) where children are unlikely to be playing internet games with adults who may be able to help them identify commercial content.

Further, the facilities on many interactive sites allows for player detail collection that may be seen as a positive feature for marketers (Faber *et al.*, 2004; Weingarten, 2002). This, however, must raise issues regarding privacy and protection of vulnerable groups such as children (Fonda, 2004). There is, however, very little research in this area and critics (see, for example, Bray, 2004) seem to be motivated largely by philosophical concerns rather than empirical evidence.

These concerns are countered, in relation to adults, by Nelson *et al.* (2004) who report, from an internet-based survey of game players that the use of actual brands adds realism to the game environment. Thus it can be assumed that positive attitudes towards games may lead to positive attitudes towards the game sponsor (Faber *et al.*, 2004). Conversely, awareness of, and resistance to the persuasive content may lead to actual boycott of products featured in games (Nelson *et al.*, 2004).

An additional concern relates to the impact of violent content, with concerns expressed ranging from the impact on aggressive or violent behavior as a consequence of violent game use (Walsh, 2001) through to poor social skills and low academic achievement (Chiu *et al.*, 2004). This is exemplified by recent lawsuits against the creators of the videogame *Grand Theft Auto* and Sony, marketers of Playstation on the grounds that the game is responsible for the murder of police officers in a manner similar to that portrayed in the game (Hettrick, 2005). Incidents such as this have led to calls for violent games of all forms to be subject to censorship or banned outright, although Simon (2004, p. 19) observes that such moves are likely to be counter-productive as ''there is no better way to promote something to a teenager than to ban it''.

Marketers themselves who are active in marketing to children appear to recognize that children may not be capable of making intelligent choices before a specific age, yet believe that it is appropriate to market to them well before this age level, as shown in Table I. This apparent contradiction between when it may be appropriate to market to young people and the age at which they can make intelligent choices appears to reflect a wider rationalization in which potential harmful effects of advertising are not considered.

Drumwright and Murphy (2004, p. 11) explain this as ''moral myopia'', defining the phenomena as:

> A distortion of moral vision, ranging from short-sightedness to near blindness, which affects an individuals' perception of an ethical dilemma. Moral myopia hinders moral issues from coming clearly into focus, particularly those that are not proximate, and it can be so severe that it may render a person effectively morally blind.

The application of moral myopia to marketing to children via the internet is illustrated by the following example from New Zealand. In common with other countries, New Zealand food marketers are stressing their efforts to be seen to be providing responsible advice regarding a balanced diet and healthy lifestyles. For example, a large biscuit manufacturer, Griffins, provides the following messages.

On their product packaging for Cookie Bear Chocolate Chippies Biscuits:

> Cookie Bear biscuits, a piece of fruit, a glass of milk, and regular physical activity – to keep kids fit, happy and healthy. A Healthy Snacking message from Cookie Bear.

The catch phrase ''Helping kids grow'' appears on their television advertisements.

However on the web site www.cookiebear.co.nz (Griffins, 2004), which appears to be specifically targeted at children, the following messages appear:

> The Twin Pack – Enjoy one now, and the other is sealed for later (not much later!).
> Make friends, have fun and enjoy Griffin's chocolate chippies everyday.
> When someone says Chippies he gets up in a jiffy and heads to the kitchen for more!
> Favourite Food: Griffin's Chocolate Chippies . . . heaps and heaps of them.

Table I	Youth marketers' perceptions of significance of children's age levels
Significance	*Age*
Appropriate to begin marketing to young people	7
Most young people can begin to view advertising critically	9.1
Most young people can separate fantasy from reality in media and advertising	9.3
Most young people can make intelligent choices as consumers	11.7
Source: Geraci (2004)	

And the poem *Big People's Food*.

> There's nothing more annoying than a cupboard filled with boring kinds of adult food that kids don't like to eat. But at least while they are hording the food that we find boring there'll be plenty of Griffin's Chocolate Chippies for you and me! (Griffins, 2004).

Unfortunately, this does not seem to be an isolated case. The winner of a 2004 NZ EFFIES Award was a milk company with a web site that includes advergames and which blatantly encourages pestering (CAANZ, 2003) which is against the industry self-regulatory code for advertising to children in New Zealand, as well as in the UK (CAP, 2005) and many other countries.

What does the extant evidence indicate?

Henri and Pudelko (2003) note the paucity of empirical data on the operation of online communities. We would extend this concern to encompass the entire interactive sector. Most research is limited to simple counts of hits on specific sites and click-thorough rates (see, for example, Buckner *et al.*, 2002). In spite of the size of the market and its reported growth rate (Lindstrom, 2005), much of the nascent body of literature is in consumer, industry or specialist journals such as the *Journal of Interactive Advertising* or *Journal of Interactive Marketing* rather than in academic journals with broader marketing communications coverage.

There are numerous, primarily anecdotal, claims of the effectiveness of advertising embedded in interactive games although empirical verification of these claims and the specific impact of this form of advertising on brand awareness, preference or sales is lacking (Deal, 2005). There are a limited number of studies that provides some evidence that the individual companies within the automotive and energy drink sectors have seen awareness move to trial and actual purchase as a result of advergames activity (Nelson *et al.*, 2004). We are unable to locate any studies that have specifically examined the effectiveness of child-focused advergames sites. Given the current criticisms of advertising directed at children, particularly in relation to claimed links between advertising and rising obesity levels (Grimm, 2004; Bull, 2003), such evidence is unlikely to be readily forthcoming.

Initial focus therefore is on an evaluation of the current activity of advergames directed at children in terms of a de-factor acceptability measure. We have therefore used the British Broadcast Committee of Advertising Practice: Television Advertising Standards Code as the basis for the initial investigation (the relevant sections are given in Appendix 1).

Objectives

To search web-based advergames sites sponsored by food marketers who produce products likely to have high appeal to children, such as chocolates, snack foods and sweetened beverages, and to determine:

- whether the persuasive/advertising components of the games are readily identifiable as advertising; and
- whether these messages would comply with the requirements of existing advertising codes (e.g. the British CAP Code) that apply to commercial messages carried in traditional media such as television.

Methodology

A systematic search of each advergames site was undertaken. Selected sites included known, high profile multinational advertisers. The web sites included in this study were:

- Cadbury UK (www.cadbury.co.uk/).
- Ferrero Kinder International site: (www.magic-kinder.com/).
- Haribo International site, UK section (www.haribo.com/).
- Kellog's UK (www.kelloggs.co.uk/).
- Kellog's US (www.kelloggsfunktown.com/).
- Kraft Postopia USA (www.postopia.com/).

- Dairy Lea UK (www.dairylea.co.uk/).
- Celebrations UK (www.celebrations365.com/).
- Milkyway/Mars/Maltesers UK (www.drinkmilkyway.com/).
- Stork KG, International (www.storck.com/).
- Walkers Crisps (walkers.corpex.com/).
- Wrigley's Hubba Bubba International (www.hubbabubba.com/).
- Cadburry Adams (http://mycandymachine.com/).
- Nestlé Wonka (www.wonka.com/).
- Nabisco World (www.nabiscoworld.com/).

Advertisers who did not have a web site associated with their company or brands that included advergames were not included.

The web sites selected for the study were visited by two researchers and rated on eight points, broadly similar to the advertising code of conduct:

- Separation of content and advertising, in line with the first objective of this survey.
- Availability of health or nutritional information.
- Whether or not there was any pressure to purchase, or if purchase gave you additional options on the site.
- If there was any incentive on the site to invite friends or to send e-card (i.e. use of viral marketing).
- Whether or not the site offered additional downloads, such as screensavers or PC games.
- If the section containing advergames was part of the overall corporate web site, or if it was a separate web site, usually with a separate address.
- Whether or not registration was asked for and how the site ensured that very young children could not register in line with general data protection laws.

The two researchers scored each of sites independently. Overall inter-coder reliability was very high, with only a handful of instances where the coders initially disagreed. These differences were discussed, which resulted in both researchers agreeing to the results in full.

In addition, all sites were revisited in by an independent researcher one year after the original study to judge the reliability of the original coding team (Yale and Gilly, 1988). The original coding was found to be reliable, though two web sites (Magic Kinder and Haribo) had removed all advergames and associated content from their UK site, though in the case of Haribo the content was still accessible in other language versions (e.g. German).

Results

Of all the web sites visited, two web sites (the web site of Stork KG and Walkers Crisps) gave only corporate information as well as providing product details, nutritional information and package sizes for their products. Both web sites did not have any part of the web site visibly targeted at children, nor did they contain advergames of any kind. However, only the Walkers web site gave further details about ''healthy snacking'', while the Stork web site only gave nutritional information about their products. As both sites did not contain advergames nor any section that was targeted at children, no further analysis of those two sites was undertaken.

The remaining 13 sites all offered a variety of ''fun sections'' clearly targeted at children. All sites went clearly beyond providing corporate information and all included at least one advergame. However, the number of games was quite different, depending on the site: for example Milkyway Drinks and Celebrations both had only one game, while others, such as Nestlé's Wonka and Kellog's FunKtown sites contained more than 20 games each, and Kraft's Postopia contained over 80 games in total. The complexity of the games offered on these sites was equally different, though it appears that companies/brands with more games on their web sites had more complex games: some games contained different subsections

and various levels of difficulty, allowing the web site visitor to spend a long time exploring the different aspects of each game, while others were very simple, such as a fortune teller ''game'' where after entering a name the game created a sentence with that name. For convenience, a tabular overview of the results is given in Appendix 2.

Separation of content and advertising

As noted earlier, the self-regulation code for traditional advertising states that advertising and information content must be clearly distinguished. While this may be somewhat difficult to achieve with regards to web sites, it was nevertheless very interesting to see that of the 13 web sites ten web sites did not mention their mainly commercial purpose in any way, i.e. there was no indication that the main objective of the web site or web site section was to sell or advertise any goods. Only three web sites did indicate their commercial purpose in some form: two sites made some attempt at indicating the commercial purpose, and one site showed a fairly clear distinction.

On Kraft's Postopia site a small sign indicated that the web site was in fact advertising. However, the sign, consisting of two flags, the word ''Ad Break'' and a short warning (''The games and other activities on this web site include messages about the products Kraft sells''), was located at the bottom of the page, and was only visible after scrolling down on an average display, thus most visitors would be unlikely to see the message, especially as the rest of the site does not require any scrolling. Nestlè's Wonka site used a similar small logo to indicate that it had a commercial purpose, though on this site the logo was located on the top right of the screen. Finally only Nabiscoworld showed a fairly clear ''warning'', by displaying a warning page when launching any of the games, which informed the visitor that the game contained commercial messages. From the limited sample, it appears that overall there is little differentiation between content and advertising, and in those limited cases in which the web site owners did show that the web site had a commercial purpose, they seemed less than eager to emphasize that fact. In terms of the code of conduct for other media, this would constitute a substantial breach of the code of conduct.

Availability of health or nutritional information

On six of the 13 sites visited the researchers could not find any information about nutrition, including no information about the nutritional values of the products advertised. Two sites contained the notional data of the products, but made little attempt to give any information beyond that, by, for example including information about a healthy lifestyle or having a varied diet. This information was, however, provided by five sites, although for two of these sites the links to this information were fairly hidden, and thus required the visitor to look around for some time to find them. Only Nabiscoworld, Kellogs (UK) and Dairy Lea provided clearly visible links throughout the site and fairly detailed information (or links to other web sites) about nutrition, diet and exercise. Given the increasing concern about the impact of advertising on children and resultant obesity levels (see, for example, Smith, 2003; Centre for Science in the Public Interest, 2002; Ludwig et al., 2001) it seems almost cynical that the majority of advertisers should choose not to use this medium to show that they are truly concerned about the problem by providing suitable links or more details about how their products can be incorporated into a healthy lifestyle.

Pressure to purchase

Of the sites visited, the seven sites did not seem to require any purchases to play the games. Although this is slightly more than half, five sites required purchases in some form, with one site requiring a purchase for all the games on the site. Most sites offered enhanced functionality by for example collecting codes from promotional packs, though in most cases the gained extra advantage seemed fairly limited. However, in the case of Ferreo Kinder, the site required a ''magic code'' to play any of the games online. This practice would appear very dubious, as this practice appears to clearly entice young consumers to purchase the products – a point that is clearly ruled out in the code of conduct.

Viral marketing

Ten sites used some form of viral marketing, for example by asking visitors to send e-cards to friends or by inviting friends to visit the site in some way. In seven cases this was very

dominant, and frequently repeated on the web site, though in one of the seven cases (Haribo) the facility was actually withdrawn stating legal reasons, and no further information was provided.

Additional downloads

Six of the web sites offered additional downloads, such as screensavers and downloading the games to play off-line. Thus, at least potentially those web sites extended their commercial messages beyond the visit to the web site. While this may not be directly in breach of the CAP code, it does, however, further weaken the clear separation between information content and advertising, and could thus be considered against the spirit of the self-regulation system's provisions.

Domain names

A further weakening of the clear separation between information content and advertising may be in the web site address, i.e. if the advergames were part of the overall corporate web site, it may be fairly likely who is trying to sell something. However, seven companies chose have their advergames containing web sites at a different domain than their corporate web site. While most companies did have the brand name in the web site name (e.g. KelloggsFunKtown.com) some companies did not have any brand name in their domain name (e.g. postopia.com, mycandymachine.com), thus potentially blurring the connection to their brand/company, which in turn potentially burrs the boundary between content and advertising.

Registration

Another area of concern is the fact that children may easily give away personal, such as their email addresses when using the sites. Such information could then be easily used for marketing purposes, and most countries have some form of age limit for this. In order to test how the visited web sites dealt with the age problem, the researchers tried to register as a 10 year old, thus well below the normally required minimum age of between 13 and 16 years old. One site (KelloggsFunKtown.com) refused registration after entering of the data, and required a guardian to provide a credit card number to unlock the registration process again. This very stringent process was however the only real hurdle the researchers found among the sites.

Eight web sites only required the person to enter a correct age (and warned that the age was ''incorrect'' when a person was too young) or had similarly easy to overcome hurdles. Three sites had no registration at all, however, one site (magic-kinder.com) specifically designated the age as an ''optional'' data, i.e. it was not required at all to register. At the same time, the magic-kinder.com welcome page also seemingly requires the visitor to register, although there is a smaller option to bypass the registration process. Eight other sites offered some incentive to register (e.g. sweepstakes), while only four sites did not directly ask for a registration. This virtual insistence on registration on web sites aimed at very young consumers again seems to suggest that advertisers are actively trying to circumvent some of the regulatory frameworks, and most notably the minimum age requirements.

Discussion, managerial and policy implications

Given the current climate of increased attention being paid to the link between advertising and obesity, it seems almost surprising how unconcerned the companies appear to be in cyberspace. Only two of the companies gave an overall impression of trying to steer children towards a healthier, varied diet and to encourage exercise. Maybe less surprisingly, those two companies were not mainly sweets manufacturers, but Kellogg's and Dairy Lea, and both claimed that their own products were a *de facto* healthy alternative to sweets.

The more traditional sweets manufacturers seemed to take a less cautious approach and seemingly appeared less concerned about their advertising activities in cyberspace. Although there are different degrees of ''unconcernedness'', no single site of those sites included in the study appeared to show the same restraints the industry is touting in traditional advertising when developing their online activities. Although most web sites did not apparently willingly circumvent legal restrictions, some web sites certainly appeared to

be stretching the limits. For example the web site magic-kinder.com virtually forced children to register, while at the same time making it clear that any information about age is optional. The site used viral marketing extensively and made purchases necessary to play any of the games, in blatant disregard of the current code of conduct. Maybe even more interestingly, while the company behind this web site (Ferrero) has seemingly invested large amounts of money into the children's web site, in the advergames and to harness the power of the internet, the company has completely neglected to even build a corporate web site: Visitors to ferrero.com get treated to a ''coming soon'' page, with not even any contact information.

The results of this very limited study certainly seem very worrying from the perspective of the regulators and policymakers: While the regulators, or even the industry itself in various countries, through self-regulation, has regulated advertising to children and pledged responsible marketing to this segment, the same advertisers appear to forget the promises as soon as they are advertising online. Further, while the industry appears to invest in making traditional advertising more ethical, more and more children are turning to other media forms than those that carry traditional advertising; precisely those media forms that the advertisers, in this sample at least, have spend a lot of resources on developing, and which are unregulated, and in which the advertisers seem to take a less ethical approach. This situation seems at least quite paradoxical.

Although the sample in this study was small, and the coding system very rudimentary, the results are nevertheless no less clear and very concerning. The study did not focus on the effect that a long term exposure and arguably more increased involvement will have on the mind of children when they play advergames and visit the visited web sites. However, it seems at least counterintuitive that this would have less potentially negative effects than television and print advertising.

However, the potential problem does not end there. While it is relatively easy to control the content of television and print advertising, controlling the content of online advertising, and advergames with different levels in particular is a lot more complex and demanding on a regulator. At the same time the global reach of the internet throws open the question who should ultimately regulate such web sites, and which code of conduct should they follow? For example, while Ferrero's magic-kinder site is owned by an Italian company, it appears to be located in the USA (based on IP location information from network solutions), with content targeted at children in various other countries. Thus, the obvious question arises which of the regulators should have ultimate jurisdiction over the site, and which code of practice should Ferrero follow? And what if the code of conducts in the countries concerned is contradictory?

Moreover, in a climate in which bans and tighter regulation of advertising to children have been proposed in several countries (Jardine and Wentz, 2004; Kleinman, 2003), the industry needs to ask itself what effect their online behavior could have on this debate. While some parts of the industry seem to try an emphasize a more responsible approach in some areas, this can not be offset by a less responsible approach in other, unregulated areas, as failure of the industry to ensure exemplary behavior from its members may lead to the imposition of greater restrictions on marketing communication for all members of the industry.

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Appendix 1

The following sections of the British Broadcast Committee of Advertising Practice: Television Advertising Standards Code were used to assess the material (CAP Code).

Section 2.1 Separation of advertisements and programmes

2.1.1. There must be a clear distinction between programmes and advertising. Note: in ambiguous cases, advertisements must be identified as such on screen (p. 11).

Section 7: Children

7.1 Misleading Advertising and Children. 7.1.1. Children's inexperience. Advertising must not take advantage of children's inexperience or their natural credulity and sense of loyalty . . .

7.1.2 Unrealistic expectations. Advertisements for products of interest to children must take account of the level of experience of those in the relevant age groups so as to avoid arousing unrealistic expectations . . .

7.1.3 Product characteristics. If advertisements for products of interest to children show or refer to characteristics which might influence a child's choice, those characteristics must be easy for children of the appropriate age to judge . . .

7.1.4 Expensive toys. Except in the case of television services carrying advertising directed exclusively at non-UK audiences, advertisements for expensive toys, games and comparable children's products must include an indication of their price.

7.1.5 Prices. Where advertising for a children's product contains a price, the cost must not be minimised by the use of words such as ''only'' or ''just''(p. 29-31).

7.2 Pressure to purchase. 7.2.1 Direct exhortation. Advertisements must not directly advise or ask children to buy or to ask their parents or others to make inquiries or purchases.

7.2.2. Unfair pressure. Advertisements must not imply that children will be inferior to others, disloyal or will have let someone down, if they or their family do not use a particular product or service.

7.2.3. Children as presenters. Children in advertisements must not comment on product or service characteristics in which children their age would not usually be interested (p. 31).

8.3 Food and dietary supplements

8.3.1 Accuracy in food advertising. Nutrition claims (e.g. ''full of the goodness of vitamin C'') or health claims (e.g. ''aids a healthy digestion'') must be supported by sound scientific evidence. Advertising must not give a misleading impression of the nutritional or health benefits of the product as a whole.

8.3.2 Excessive consumption. Advertising must not encourage or condone excessive consumption of any food.

8.3.3. Comparisons and good dietary practice. Advertisements must not disparage good dietary practice. Comparisons between products must not discourage the selection of options such as fresh fruit and vegetables which accepted dietary opinion recommends should form a greater part of the average diet.

8.3.4 Oral health. Advertisements must not encourage or condone damaging oral health care practices (pp. 41-42).

Table AI Tabular overview of results

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
Number of games	3	5	7	16	20 +	80	4	1	1	7	5	20 +	20 +	0	0
Separation content															
Clear separation													×		
Mentioned but not clear												×			
Unclear separation (e.g. needs scrolling)						×									
No visible separation	×	×	×	×	×		×	×	×	×	×			×	×
Health information															
Clearly visible links				×			×						×		×
No directly visible links					×	×									
Only nutritional information	×								×					×	
No information found		×	×					×		×	×	×			
Site registration															
Very dominant and repeated in most areas		×													
Very dominant			×	×	×		×								
Asked for but not necessary (sweep stakes)	×					×		×							
Not directly required/not available									×	×	×		×	×	×
Pressure to purchase															
Purchase necessary for full site access		×													
Some purchase(s) required			×			×	×			×					
No purchase required	×			×	×			×	×		×		×	×	×
Domain															
Extra site other than corporate site		×			×	×	×			×	×	×			
Choice between adults/Kids site			×												
"Fun"-section on the general site	×			×				×	×				×		
Not directly linked at children														×	×
E-cards/invite friends															
Available dominantly		×	×	×		×			×	×	×	×			
Available, though not dominant	×				×										
Not available							×	×					×	×	×
Further downloads (screensavers etc.)															
Available dominantly				×						×		×			
Available, though not dominant	×				×			×							
Not available		×	×			×	×				×		×	×	×
Registration															
Age verification + strict guardian consent					×										
Age verification + guardian consent			×			×	×	×							
Age verification (no guardian consent)	×			×									×		
No age verification		×				×						×			
No registration									×	×	×			×	×

Notes: A = www.cadburry.co.uk B = www.magic-kinder.com/ C = www.haribo.com/ D = www.kelloggs.co.uk/ E = www. kelloggsfunktown.com/ F = www.postopia.com/ G = www.dairyleagetmoovin.co.uk/ H = www.celebrations365.com/ I = www.drinkmilkyway.com J = www.hubbabubba.com/ K = http://mycandymachine.com/ L = www.wonka.com/ M = www.nabiscoworld.com/ N = www.storck.com/ O = http://walkers.corpex.com/

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