**Marketing Communication Implications of Children's
New Electronic Media Use**

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Abstract

Currently new electronic mediums, the Internet in particular, are poised to become a major part of the marketing and communication mix to not only adults but also children. This poses challenges and heralds new debate on both protection of the young vis-à-vis more equitable access, and the need, nature and forms of regulation warranted. This paper reviews the literature on this debate and related issues. It reports on a New Zealand empirical study of parental perceptions of their children's electronic media use and examines the findings and the insights obtained on use of the Internet and its role as a marketing communication medium. It also reports on what these parents consider to be the key concerns in this area and their Internet site preferences. Their view on the violence-video game link is similarly ascertained. Our study and literature review leads to some implications for marketing communication being drawn out.

"The popularity of this new pastime among children has increased rapidly ... This new invader of the privacy of the home has brought many a disturbing influence in its wake. Parents have become aware of a puzzling change in the behaviour pattern of their children. They are bewildered by a host of new problems, and find themselves unprepared, frightened, resentful, helpless. They cannot lock out this intruder because it has gained an invincible hold of their children."
(Eisenberg, 1936 – discussing the impact of radio)

1. Introduction

The development of a new medium is usually greeted with either dismissal or predictions that the new medium will replace the old (Coffey and Stipp 1997). The growth of information and communication technology (ICT), particularly computer based forms, has brought with it considerable debate about its promise, and also considerable concern regarding its impact on children's development and well-being. There is widespread acceptance that children need to develop computer skills in order to take their places in a 'wired world' and that marketing via the Internet (including to children) will become a major part of the marketing communication mix. Less clear, however, is the impact of computer-based technology on children's lives especially in terms of their Internet access, use and preferences, and the effectiveness of the Internet as a marketing communication medium for children-directed messages. Also unclear is whether concerns expressed by parents about computer use and access to the Internet in particular are warranted. This paper reviews the literature and reports on a New Zealand empirical study of parental perceptions of their children's use of the Internet and what these parents consider to be the key issues in the area. Implications and role of the Internet as a marketing communication medium are delineated.

New Zealand is a small country in the southwest Pacific, chiefly comprising two islands – the North and South Islands. Three quarters of its close to 4 million population, live in the North Island, with over a quarter concentrated in the main urban area of Auckland. The small sized, but advanced, mature market allows relatively easy evaluation of marketing communication activity. Lessons learned from the New Zealand market can be relevant to larger markets, particularly those undergoing similar deregulatory pressures.

2. Research Methodology

A survey of parents/primary caregivers from a range of primary schools across Metropolitan Auckland was undertaken. Schools were selected from a list provided by the Ministry of Education, which classifies New Zealand schools from deciles 1-10, with decile 1 associated with the lowest socio-economic group and 10, the highest. We chose a stratified sample of schools to represent state, private ('elite') and religious (Catholic) state school sectors. The latter are those schools combining a special Christian character with the standard educational role common to all other schools. Where a school declined to participate, a replacement with a similar socio-economic profile was selected as a replacement. With the agreement of the school's Trust Board and the support of each Principal, a questionnaire together with a reply paid envelope, was enclosed with the school newsletter to parents. A covering letter from the school Principal explaining the origin, purpose and intention of the survey was also attached. Questionnaires were sent out to each household. The questions

used were developed from a range of sources, particularly frequently voiced criticisms identified in the literature relating to advertising directed at children, whether based on empirical or emotive foundations. Questions were also drawn from a number of individual studies (e.g. Grossbart et al., 1984 and Walsh et al., 1998) to allow comparison with international data on electronic media use. A total sample of 514 parents was obtained. Response rates by decile level and school type are shown in Table 1.

Table 1: Response rates by type and decile level of school

Decile 10 Private	28%
Decile 10 Religious State	23%
Decile 10 State	15%
Decile 7 State	30%
Decile 5 State	18%
Decile 3 State	16%
Decile 1 State	18%
Decile 1 Religious State	27%

3. Issues and Concerns

3.1. Brave new world or a growing digital divide?

Shields and Behrman (2000) review research on parental perceptions of the influence on children of computers and the Internet and conclude that most parents see this technology as a positive force, helping with homework and allowing children to discover things for themselves. They do, however, note concerns about potential exposure to inappropriate commercial, sexual and violent content. The use of a home computer is widely assumed to have a positive impact on children's lives in spite of little research to confirm this. Computer access is highly correlated with high levels of family income and education and it is difficult to determine the contribution each of these factors may make individually or in combination to a child's academic record. In spite of this, there appears to be a belief that children who do not have this access are disadvantaged and equality of digital opportunity is fast becoming synonymous with equality of educational opportunity (see, for example, Chen, 2000).

In our study, unsurprisingly, Internet usage is linked to decile level (socio-economic status), as shown in Table 2. Rather surprisingly, however, numerous parents across all decile levels indicated that non-access was a conscious choice and that they did not want access, citing a range of 'dangers'. Numerous concerns were expressed, in particular from lower decile parents, regarding this decision. Parents appear to recognise the potential benefits of the technology, but also fear it. This trepidation, evidenced from unsolicited comments, again especially from parents from the lower decile schools, largely it appears, arises from their lack of familiarity with the new medium. Concerns were also expressed regarding children's access outside their own homes, particularly if unsupervised at other's homes.

Table 2: Percentage of families with Internet access

Internet usage (% of respondents reporting use in home by children)	%
Decile 10 Private	80
Decile 10 Religious State	58
Decile 10 State	51
Decile 7 State	35
Decile 5 State	55
Decile 3 State	26
Decile 1 State	19
Decile 1 Religious State	8

Governments increasingly are recognising a need and responsibility to ensure more equitable access to technology. For example, a stated goal of the New Zealand Government is to "grow an inclusive and innovative economy for the benefit of all", with part of fulfilling this goal, the development of a "digital opportunity strategy" (Department of Labour, 2001: 4). As Table 3 shows however, not all New Zealanders appear to want such digital access. Interesting patterns are also observable across ethnic groups. Nevertheless, as noted, negative attitudes towards information and communications technology may stem from a lack of awareness of what technology can do for people and / or lack of comfort with the technology itself, together with a preference by some communities to do things in other ways (Department of Labour, 2001).

Table 3: Households neither having Internet access nor wanting it

Ethnic group	%
Chinese	12.9
European / Pakeha	23.7
Maori	30.6
Pacific Island	42.0

Source: NZ Department of Labour (2001:88)

3.2 Socialisation and Learning

The use of the Internet to send and receive email and visit chat rooms is changing the way children communicate with each other. Kraut et al. (1998) however, caution that excessive computer use may affect social development and increase feelings of loneliness and depression. While keeping up with local and distant friends may be a significant use of the Internet for children, Subramanyan et al. (2000) too raise concerns regarding children's participation in multi-user domains such as chat rooms and games, questioning children's ability to distinguish real life from simulation. Chat rooms particularly offer no way to determine whether interactions are with a real person or a fabricated character. Chat rooms, however, do not appear to be a major potential problem - US census data indicates that children are using computers primarily to play games and to run stand-alone software (Becker, 2000).

Wartella and Jennings (2000) state that computers and videogames are a source of conversation and interaction among many children. Such knowledge, as cultural currency, is part of a much broader phenomenon, extending across a wide range of marketing activity (see Ritson and Elliot, 1999; Bulmer, 2001). The potential strength of new electronic media, individually and collectively as agents of socialisation, learning and cultural 'cool' appears to only now be receiving serious academic attention. There may also be substantial benefits for social skills. In the school environment, shared computers often have been found to lead to group interaction and cooperation rather than social isolation (Orleans and Luney, 2000).

Rochelle et al. (2000) suggest that it is the extent of interactivity involved in an experience with media that may affect the learning process, citing a range of studies showing involvement with and active processing of television programmes by children well below school age. They suggest that a parallel can be made with computers. The explosion of publicly available knowledge and the growing demands of the future workplace is leading to rising expectations of students, but there is a lack of clarity as to whether we should focus on their learning things better – or on learning better things. The mere presence of computers in the classroom does not ensure their effective use. Repetitive skill practice decreases performance while deep reasoning increases it, suggesting the use of computers as a learning support for high order skills such as critical thinking, analysis and scientific inquiry.

Effective use of new electronic media in the teaching and learning environment of children is undoubtedly not without potential. An investment in infrastructure in schools, however, needs to be supported by greater investment in information and communication technology (ICT) training of teachers and better integration of ICT into the curriculum. Leu (2000) stresses that global economic competition in an age of information is driving the infusion of networked ICT into the classroom, however, there is no extensive research base demonstrating the efficacy of these technologies for teaching and learning. Only limited instructional research exists to evaluate the effects of the Internet on teaching and learning.

And what of computer games? Again, the evidence is mixed. Bloomfield (1999) stresses the positive factors in playing videogames such as Pokemon, in that players must master an array of mathematical relationships. Children teach each other the rules and cooperation is required; some Pokemon characters can only be 'evolved' by incubation, requiring interdependence among players with different versions of the game. The competitive element inherent in collecting the most Pokemon remains a concern for both teachers and parents (see de Bruin and Eagle, 2002). Whether and how well, educators build on the positive aspects of Pokemon collection and related activity to structure similar cooperative educational experiences is yet to be seen.

Similarly, the role of marketing in developing products and services for electronic media is still evolving, with considerable tensions and minimal empirical research evident (see Montgomery, 2000). The effectiveness of ways marketers use the electronic media to communicate with children has also yet to be empirically examined in any detail.

3.3 Protection and Gatekeepers

Society relies on parents as the primary gatekeepers with an obligation to protect children from harm that might be inflicted on them by others and from harm that children may cause to themselves (Ahuja et al., 2001). In the context of electronic media, an often-expressed opinion is that parents should assume responsibility for their children's television viewing and access to other media. A large body of literature emphasises that parental involvement in children's television viewing provides an opportunity for mediating the impact of television programming and advertising, as well as educating their children toward discernment in their consumption choices (see Eagle et al., 2002). Protection may involve curbing freedoms for children in ways that would constitute unacceptable restriction for adults. Setting such limits to protect children from 'net nasties', however, are justified on the basis that children's cognitive and emotional capacity with regard to fully rational decisions are deemed to be less complete than adults (see, for example, Baig, 1999; Miller, 1999; Siebert, 1999; Hertzel, 2000).

Extending resources available for facilitating safe and productive use of Internet resources, such as that provided in the USA, is a less direct, complementary protective mechanism that is well worth exploring (US Department of Education, 2001). Such an approach may be viewed as being of particular importance as communication and information technology use lifts a child out of institutional controls such as schools and families (see Holmes & Russell, 1999).

In the debate on the nature and impact of persuasive communication to children using differing electronic mediums, the age of the children becomes an important consideration. Roedder-John (1999) reviews socialisation and development of children in the consumer role. She notes that 11 – 16 year olds have sophisticated information processing skills, understand the intent of advertisements and clearly separate advertising from programmes and recognize bias and deception. This would suggest that the protection of children from persuasive communication becomes more important for younger children and that age-segmented rather than across the board gate-keeping could well be relevant. Furthermore, in view of the recent sizable and growing per capita direct spending of kids in the 4 to 12 year age group, as well as their indirect influence on household buying (McNeal, 1998), issues relating to pursuit of consumer protection for this group of children in particular, must be emphasised in any research agenda.

To age differentiation of children considerations, must be added the fact that with the Internet there could be intentional blurring of advertising, editorial and entertainment, thus making distinction between programme content and advertising, more difficult (Grier, 2001). There is a growing body of literature analysing the deliberate blurring between advertising and editorial on websites and an acknowledgement that current industry self regulatory moves to ensure standards for Internet advertising (similar to those in existence for more traditional media) are totally inadequate for new and emerging electronic technology vehicles such as the Internet (see, for example, Baig, 1999). Advertising and website content are integrated – with the obvious intent of promoting brand awareness and, ultimately, purchase. Additionally, Montgomery (2000) notes that commercial Internet sites, particularly those tied to popular shows and / or to companies, are often heavily promoted.

4. Empirical Findings

4.1. Internet Use and Control

To gauge the current ambit of the Internet, information was sought on the duration of use and the main purposes of usage. Results are summarized in Table 4 and Table 5.

Table 4 indicates reported weekday Internet use is light in terms of hours per day usage, with also parents reporting access to be limited to primarily after school, evening and weekends so that they are able to supervise activities. Emails and games are the primary uses of Internet access.

Table 4: Summary of Time Spent on Internet by Child with Heaviest Usage

Time reported only for homes in which children have access to Internet	Less than 1 hour %	1 - 2 hours %	3 - 4 hours %	5 - 6 hours %	6+ hours %	Total %
Weekdays						
Decile 10 Private	71	23	3	2	1	100
Decile 10 Religious State	65	35	0	0	0	100
Decile 10 State	78	14	4	4	0	100
Decile 7 State	79	11	10	0	0	100
Decile 5 State	76	18	6	0	0	100
Decile 3 State	72	22	6	0	0	100
Decile 1 State	33	67	0	0	0	100
Decile 1 Religious State	27	32	33	7	0	100
Weekends						
Decile 10 Private	86	13	1	0	0	100
Decile 10 Religious State	59	31	10	0	0	100
Decile 10 State	87	10	3	0	0	100
Decile 7 State	84	11	5	0	0	100
Decile 5 State	87	10	3	0	0	100
Decile 3 State	78	17	5	0	0	100
Decile 1 State	50	50	0	0	0	100
Decile 1 Religious State	38	56	6	0	0	100

Note: calculated only from respondents reporting use in homes

With regard to providing details of the usage patterns for their children, few respondents were able to specify different uses with a degree of certainty. The numbers are shown alongside the school descriptor in Table 5. The small numbers make any form of detailed analysis impossible but it does appear, in terms of parents reporting any use of these tools, that the primary usage of the Internet by children is for email and games, with light use of Chat Rooms and MP3 (MPEG Audio Layer 3 – a format that digitises and "compresses" audio files, usually of popular music tracks so they can be downloaded from Internet sites and saved on a computer or portable player without taking up a lot of hard drive space). The latter two tools appear to be limited entirely to older (teenage) male children. Parents provided a number of unsolicited comments regarding their total opposition to children accessing chat rooms of any kind. Internet Service Providers such as New Zealand's market-dominant Telecom's Xtra were frequently cited as 'irresponsible' in providing 'unrestricted' / 'unsupervised' chat room links from their home pages. As pointed out

in the following Section 4.2, reviewing best and worst Internet sites for children, it is the ease with which children can access 'undesirable' sites that causes the most parental concern.

Table 5: Internet use – main functions

Internet Usage (summary) (n = number of parents indicating any use by children)	Less than 1 hour %	1 - 2 hours %	3 - 4 hours %	5 - 6 hours %	6+ hours %	Total %
Emails						
Decile 10 Private	N/a					
Decile 10 Religious State (n= 17)	88	12	0	0	0	100
Decile 10 State (n = 22)	91	5	4	0	0	100
Decile 7 State (n = 17)	100	0	0	0	0	100
Decile 5 State (n = 27)	96	4	0	0	0	100
Decile 3 State (n = 10)	90	10	0	0	0	100
Decile 1 State (n = 4)	100	0	0	0	0	100
Decile 1 Religious State (n = 9)	67	33	0	0	0	100
Internet Games						
Decile 10 Private	N/a					
Decile 10 Religious State(n=28)	88	12	0	0	0	100
Decile 10 State (n = 26)	92	8	0	0	0	100
Decile 7 State (n = 19)	87	13	0	0	0	100
Decile 5 State (n = 26)	100	0	0	0	0	100
Decile 3 State (n = 10)	83	17	0	0	0	100
Decile 1 State (n = 5)	20	80	0	0	0	100
Decile 1 Religious State (n = 9)	58	33	9	0	0	100
Internet Chat Rooms						
Decile 10 Private	N/a					
Decile 10 Religious State (n = 8)	88	12	0	0	0	100
Decile 10 State (n = 15)	100	0	0	0	0	100
Decile 7 State (n = 4)	100	0	0	0	0	100
Decile 5 State (n = 10)	90	10	0	0	0	100
Decile 3 State (n = 5)	80	0	0	20	0	100
Decile 1 State (n = 1)	100	0	0	0	0	100
Decile 1 Religious State (n = 5)	60	20	20	0	0	100
MP3 Use						
Decile 10 Private	N/a					
Decile 10 Religious State (n = 5)	100	0	0	0	0	100
Decile 10 State (n = 15)	93	0	0	7	0	100
Decile 7 State (n = 5)	100	0	0	0	0	100
Decile 5 State (n = 15)	73	13	7	7	0	100
Decile 3 State (n = 4)	100	0	0	0	0	100
Decile 1 State (n = 0)	0	0	0	0	0	0
Decile 1 Religious (n = 6)	50	33	17	0	0	100

Note: calculated only from respondents reporting use in homes

In order to obtain insight into parental views on the need to guide and regulate children's Internet use, we asked respondents to indicate the amount of influence they had over Internet sites that were visited by their children. The results from these queries are presented in Table 6. As Table 6 reveals parents had high levels of influence over Internet sites visited, although they acknowledged that their influence and control diminished as children got older. With the 'quite a lot' and 'considerable influence' categories are aggregated; parental direction is high at all socio-economic levels.

Table 6: Degree of Parental Influence over which Internet sites children visit

	Mean	S.D.	No influence %	A little Influence %	Moderate amount %	Quite a lot %	Considerable Influence %
Decile 10 Private	4.3	0.9	7	10	15	24	44
Decile 10 Religious State	4.3	0.9	0	5	14	24	57
Decile 10 State	4.5	0.9	0	10	11	11	68
Decile 7 State	4.1	1.1	0	8	8	34	50
Decile 5 State	4.2	1.1	4	15	15	16	50
Decile 3 State	4.4	0.7	10	0	10	14	66
Decile 1 State	4.6	0.9	0	0	20	0	80
Decile 1 Religious State	3.4	1.2	10	20	0	10	60

Our study did not specifically ask parents to indicate whether they used filtering software to prevent access to sites that they did not wish their children to access and only a few parents indicated in their comments within this section that they did use such software. Awareness of the availability of blocking and filtering software appears to be low, given a number of unprompted comments that parents would like to find ways of blocking access to inappropriate sites. As one parent conveyed:

> "It's so easy for children to get into the Internet and view undesirable stuff, maybe some kind of exercise should be programmed into it so much older kids will be the only ones who can access it".

However, another parent, while aware of filtering software, acknowledged her son's superior computer expertise – and the determination to explore limits:

> "I realise there are programmes such as 'Nannynet' but it probably wouldn't take him long to disable it should he put his mind to It".

Additionally, comments indicated that parents assumed / hoped that access to Internet sites at school was closely supervised, site access monitored and that children would be protected from "perverted filth".

4.2. The Best and Worst Sites

Information was sought on sites visited by children and parental views on sites that children could access. These results are presented in Tables 7 and 8. Parents were asked to nominate the best and worst Internet sites for their children. In choosing the best sites, very few parents were able to nominate specific sites, with most opting to specify generic or specific 'search engines', such as 'Google', 'Askjeeves', or 'AltaVista', as shown in Table 7 below. The other sites to receive mentions by more than one or two parents were Encarta / encyclopaedia sites, and 'Suzy Cato', a New

Zealand originated interactive educational site linked to a popular pre-school / primary school aged television programme.

Some parents also nominated 'Interactive games' sites among the best, while small numbers nominated specific sites. In an earlier phase of this research (see Eagle et al, 2002), parents expressed strong misgivings on the television programme content of 'Pokemon' and 'Dragonball Z', in particular the level of violence and lack of positive values portrayed. In this latest study, a small number of parents nominated the associated websites as good in that they encouraged reading and problem solving through their interactive games. This rationale also applied to the 'Harry Potter' site, with a small number of parents noting that this site had got their children interested in reading when "nothing else did". One noted that they were prepared to "put up with the merchandising crap" on such sites because of the other benefits offered. This highlights an interesting trade-off between the theme of the site and the educational benefits it is perceived to provide.

A small number of parents nominated "educational sites" as best, while others specifically noted 'Word Puzzles', 'Maths tutorials' or specific sites that provided reading or maths tutorials and interactive games. NASA and National Geographic received very few mentions, as did sites linked to a number of specific children's television shows, such as 'Bob the Builder', 'What Now' (another New Zealand originated site linked to a child-oriented television show) and the 'Wiggles' (a popular Australian site, also linked to a children's television show). Also surprising was the very low support for sites associated with 'Barbie' and with 'Lego'. A range of other sites received mention such as specific school sites, sports sites (for soccer draws etc) and special interest music or hobby related sites.

Tables 7 and 8 summarise what parents considered as the best Internet sites (only if they were nominated by at least 5% of respondents from any one school) for their children to visit and the reasons for their choice.

Table 7: Best Internet sites for children to view

	Decile 10 Private %	Decile 10 Religious State %	Decile 10 State %	Decile 7 State %	Decile 5 State %	Decile 3 State %	Decile 1 State %	Decile 1 Religious State %
Search engines / homework help	N/a	38	39	50	37	40	22	56
Encarta / Encyclopaedia	0	0	22	12	0	13	0	0
Suzy Cato	0	0	11	0	7	13	0	0

Table 8 shows an overwhelming preference for sites that will help children with homework and which are educational, with age suitability, fun and user friendly characteristics also being important.

Table 8: Reasons for Nominating Best Internet Sites for Children to View

	Decile 10 Religious State %	Decile 10 State %	Decile 7 State %	Decile 5 State %	Decile 3 State %	Decile 1 State %	Decile 1 Religious State %
Easy access for homework projects	27	40	66	21	27	33	20
Educational / promotes reading	40	27	16	21	40	34	60
Age suitable / safe	7	0	17	29	7	33	
Fun / entertaining	19	38	0	14	40	0	20
Interactive / user friendly	7	0	0	21	13	0	0

In response to the request to nominate the worst Internet sites for their children to visit, the overwhelming response was that parents closely supervised their children's access to sites, often using bookmarks for favourite / acceptable sites. Very few could nominate specific sites, which they disapproved. In fact, several interesting comments were made by respondents regarding the researchers' motives for collecting this information! The major response themes were that parents considered anything with pornographic, 'x-rated', or excessive violence (including wrestling) to be undesirable, along with anything 'wanting names and addresses' or anything 'wanting to send ads'. Chat rooms were also seen as undesirable, supporting the concerns flagged by Subramanyan et al. (2000) noted in the earlier section 3.2 on socialisation.

A number of parents highlighted concerns that seemingly acceptable sites such as 'Nickelodeon' contained links to other sites with less than desirable content. A secondary concern was the number of sites with addresses very close to 'legitimate' sites that brought their children to objectionable sites. Illustrating this: a slight misspelling of 'Shakespeare' linked to "really gross chatrooms"; there is a site associated with the television programme 'Dragonball Z', but there is also a 'Dragonball X site, with sexually explicit material; a search for sites linked to the movie 'Babe' (featuring a talking pig) finds 'babes' of a totally different type; 'Cartoons' as a search word also brings up an interesting range of harmless, mildly risqué or totally scatological cartoon sites.

One parent nominated a site that she described as "horrific – can really turn your stomach" as an example of the dangers of unsupervised Internet surfing. Concerns with such sites (the site nominated contains a mixture of obscene, pornographic and scatological images and a promise to 'present the viewer with a truly unpleasant experience'), apart from the offensive nature of the site content are that, unlike many 'X-rated' sites that show a modicum of responsibility by providing age suitability warnings on their site 'front pages', these sites contain no warnings about the graphic and shocking nature of the content and in fact present them in such a way as to tempt the unwary surfer to enter.

It is clear that parental supervision of Internet sites is, and can be expected to remain, high. Parents' comments focused on issues of access and control, demonstrating also concerns at their own limited knowledge and understanding of the medium. Nevertheless, our study shows that parents' preferences for interactive educational

sites are clear and marketers should take these preferences into account in developing sites that children will want to access – and parents tolerate, if not encourage.

4.3 Importance of the Internet as an advertising medium

Parents were also asked to answer a set of questions regarding their perception of the Internet as an advertising vehicle. A standard five point scale was used, where 1 = totally disagree, 3 = neutral and 5 = totally agree. The mean scores obtained for each statement were again tested against the neutral score of 3. Those scores shown in Table 9 marked with an asterisk are statistically significant – i.e. there are less than 5 chances in 100 that the parent's opinions on the specific statements are neutral.

Overwhelmingly, television was seen as a much stronger advertising influence than is the Internet (statement a). This result was to be expected as currently, the influence of the Internet as an advertising force is surprisingly weak. However, this is likely to change. As Subrahmanyan et al. (2000) reporting on a recent American survey draw attention to, although children still spend more time watching television than using computers, a computer with Internet capability far outstripped any other form of communication / entertainment envisaged by children aged 8 – 18 years as being their most preferred to take to a desert island. Internet advertisements are also seen as providing information regarding available products (statement k). Parents were neutral regarding whether children could distinguish between website content and advertisements (statement I) and whether they were able to understand the commercial intent of the advertising.

Table 9: Agreement / Disagreement (on a five point scale where 1 = totally disagree and 5 = totally agree and 3 = neutral) with Opinions/ Statements on Relative Influence of Internet on Children

Statement	Decile 10 Religious		Decile 10 State		Decile 7 State		Decile 5 State		Decile 3 State		Decile 1 State		Decile 1 Religious	
	Mean	Std Dev	Mean	Std Dev	Mean	Std Dev	Mean	Std Dev	Mean	Std Dev	Mean	Std Dev	Mean	Std Dev
a. My children are more influenced by advertising on television rather than the Internet	4.5*	0.9	4.5*	0.7	3.4	1.7	4.3*	1.1	4.3*	1.0	4.3*	0.8	3.7*	1.2
b. Internet advertising is an important cause of my children pestering me for advertised products	1.8*	1.0	1.7*	0.8	1.6*	1.1	1.7*	1.1	2.4*	1.1	2.3	1.2	2.3*	1.2
c. Internet advertising encourages my children to want products they don't need	2.2*	1.2	2.0*	0.9	1.4*	0.7	1.9*	1.1	2.6	1.1	2.8	1.4	2.4*	1.5
d. Internet advertising to children leads to family conflict	1.6*	0.8	1.8*	1.0	1.1*	0.3	1.5*	0.8	2.5*	1.1	2.4	1.3	2.1*	1.3
e. Internet advertising to children uses tricks and gimmicks	2.7*	1.3	3.0	1.1	2.0*	1.1	2.6	1.3	3.2	1.1	2.8	1.5	3.1	1.4
f. Most advertisements on Internet sites visited by children are for toys	3.0	0.9	2.9	1.0	2.0*	1.4	2.5*	0.8	3.3*	0.6	3.2	1.0	2.7*	1.0
g. As a result of my children seeing advertising on the Internet we have bought products online	1.4*	1.0	1.4*	0.8	1.4*	0.9	1.5*	0.9	1.9*	1.1	2.1	1.4	2.0*	1.3
h. My children use the Internet to search for information on new products that they want	2.0*	1.5	1.8*	1.2	1.3*	0.7	1.9*	1.1	2.3*	1.2	2.8	1.3	2.3*	1.5
i. Children are able to distinguish between Website content and advertising	3.4	1.2	2.8	1.2	3.1	1.5	3.0	1.1	2.8	1.2	2.7	1.3	3.0	1.4
j. Children understand the commercial intent of advertisements on the Internet	3.2	1.1	2.7	1.1	3.4	1.3	2.8	1.1	2.6	1.2	2.3	1.0	2.8	1.3
k. Internet advertisements provide information regarding available products	3.5*	0.8	3.4	0.8	3.8*	0.9	3.0	0.9	3.3	1.0	3.0	1.2	3.0	1.2
l. Internet advertisements encourages discussion of products within the family	2.9	1.1	2.8	0.9	2.3	1.2	2.4	1.2	2.6	1.1	2.7	1.0	2.4	

*denotes that the null hypothesis of 3 (neutral) can be rejected at the 0.025 (2-tail) level of significance

4.4 Violence

There is a major potential downside to some electronic technology applications, particularly in relation to violence in games. There may be a similar link between playing violent computer games and increased aggression to that noted with regard to watching violent films and television programmes and the documented increased in hostility and aggression in children (Fling et al. 1992; Zillman & Weaver, 1999). Subrahmanyan et al. (2000) suggest that playing violent computer games may increase aggressiveness, desensitise a child to suffering and the use of computers may blur a child's ability to distinguish real life from simulation. Grier (2001) finds support for this view in a Federal Trade Commission (FTC) review that reported that the majority of the research into the impact of media violence on children finds that there is a high correlation between exposure to media violence and aggression and sometimes-violent behaviour. Further, she notes that the FTC report found evidence in several studies that exposure to media violence is correlated with increased acceptance of violent behaviour in others. Wiegman and van Schie (1998) add additional support to what appears to be a growing body of evidence linking exposure to electronic media violence and contribute the observation that videogames involve a type of participant modelling in that the player 'controls' a character – and in some ways becomes the character. The element of reward, in giving points, and in the length of time a game lasts thus adds a different dimension to the more passive television viewing activity.

Correlation does not imply causation. Shields and Behrman (2000) note that the causal direction between exposure to violence in the electronic media and subsequent violent behavioural tendencies is unclear and that the critical variable appears to be a child's preference for playing such games. Wartella and Jennings (2000) suggest that when a child has an unsatisfactory relationship with their family members or peer groups, they are more likely to retreat to television (and other electronic media) and to fantasise about what they see. Further, they posit (2000:36) that 'children who come to television full of aggression tend to seek out violence in television, and to remember and resurrect that violence later in life'.

Zillman and Weaver (1999:145) review a number of major studies on the relationship between media violence and aggression in society, contending that "all have come to the conclusion that available research has firmly established that the extensive viewing of violence increases the acceptance of aggressive attitudes, as well as overt aggressive behaviour". They also contribute to the correlation versus causation debate, suggesting from their review of previous research studies, that some children may be more predisposed than others to behave aggressively; aggressiveness materialises as a result of this predisposition – of which an early interest in media violence is a part.

Parental concerns regarding violence in videogames support the above comments, as shown in Table 10. Of those that did not have concerns, a number indicated that this was because they were careful regarding what games were purchased for children to play. Of those who did cite concerns, numerous respondents suggested that playing with violent videogames made their children "angry and violent themselves". This is consistent with the evidence in the academic literature as is the difference between television / video violence and interactive videogames. With the latter medium, this

was perceived as being due to active participation and the 'reward' inherent in participation, as well as the incentives offered to win:

> "Especially fighting games – player commits violence by proxy as a 'normal' game".

> "'Killing' component in videogames is 'easy' and a way of 'winning' the game. I question the morality of this effect on children".

> "Teaches children ok to fight each other for no apparent reason"

> "Many of the games involve killing hitting, smashing, searching dead bodies etc. for clues, points, the more you kill, the more points you get. What is this message sending our children?"

> "Violence is unnecessary – may lead to violent play and acceptance of violence in life except the violence is directly controlled by the child, i.e. they are directly involved. I have had many discussions and arguments over children wanting to hire inappropriate games (i.e. too violent). There is a lot of peer pressure".

> "Videogame violence gives an unrealistic view of winning or being a winner. The only outcome of winning is to 'destroy' your opponent, there is no compromise. Children these days are too 'serious' I feel it because of the violent programmes on TV, Playstation games and video games. They need more light hearted humour, programmes, games etc".

Parents are also conscious of considerable amounts of peer pressure on their children to take part in playing these games.

> "Children are talking about it in the news at school. They go and act out on their friends. They need to know what is acceptable and what is not. They cannot at an early age unless taught to differentiate".

> "When you see kids in arcades as you walk past and your kids think they are cool because they are playing violent games, I have a problem where games exercise the mind. There must be some fun ideas of Playstation games that will teach our 5-7 year-olds and up".

Additional comment made by several parents was that it was questionable as to whether children could distinguish the 'glamorised / stylised' violence from reality:

> "They may try and imitate what they saw or played in video games".

> "Violence that has no real consequences and can be switched off trivialises the reality".

> "Behaviour after playing a violent game, can often be unusual".

Table 10: Concerns Regarding Amount of Violence in Videogames that may be Played By Children

	Decile 10 Private %	Decile 10 Religious State %	Decile 10 State %	Decile 7 State %	Decile 5 State %	Decile 3 State %	Decile 1 State %	Decile 1 Religious State %
Concerns								
Yes	57	51	50	51	51	46	50	51
No / no response	43	49	50	49	49	54	50	49
Total	100	100	100	100	100	100	100	100
Specific Concerns Noted (% of respondents who indicated concerns above)								
Promotes acting out of violence	26	5	4	18	5	0	20	4
Makes them angry and violent	3	9	9	14	5	0	10	17
Violence in any form is wrong	39	62	59	50	70	95	70	65
Too graphic	9	0	4	7	15	0	0	9
Not supervised at friend's place	7	5	14	11	5	0	0	4
Title does not give clue to violence level	10	19	9	0	0	5	0	0
Can't distinguish game from reality	5	0	0	0	0	0	0	0
Total	100	100	100	100	100	100	100	100

Parental concern, however, appears to be much broader than just the possible exposure to violence. Concerns extend to include pornography and other inappropriate sites. The representative comments listed below also highlight issues of familiarity with the technology and lack of familiarity regarding filtering / blocking software that were discussed in the earlier section on children's media usage profiles:

"The Internet is an uncontrolled free for – all, kids can look at anything they want unless parents keep tabs on them".

"Pornography and graphic violence can disturb young minds".

"Because I don't know what's on the internet exactly. I have heard some bad things from others and over talk back radio".

"Access for young and impressionable children to graphic sites".

"There is not enough security on the internet to stop children from being able to access violent sites".

"I let him search and surf the net and I am not always present to check that the sites are appropriate".

Table 11: Concerns Regarding Amount of Violence On Internet That May Be Viewed By Children

	Decile 10 Private %	Decile 10 Religious State %	Decile 10 State %	Decile 7 State %	Decile 5 State %	Decile 3 State %	Decile 1 State %	Decile 1 Religious State %
Concerns								
Yes	N/a	40	15	90	35	50	47	29
No / no response		60	85	10	65	50	53	71
Total	100	100	100	100	100	100	100	100
Specific Concerns Noted (% of respondents who indicated concerns above)								
Too easy to get access	100	100	100	100	100	100	100	100
Total	100	100	100	100	100	100	100	100

In a content analysis of videogames, Dietz (1998) found that nearly 80% had aggression or violence as an objective. The marketing tactics used for these are, according to Grier (2001), often directed at ages well below that recommended. Our study confirms that violence is a major concern of parents. It would appear therefore that marketers' responsibilities are two-fold. The marketers of computer games must heed parents' concerns and cooperate with rating / labelling regimes in place to identify age-appropriate content. There also appears to be the potential for the development of a wider range of educational, non-violent games than exists at present. As a parent in our study asked simply "Are there any non-violent games"?

In addition, marketers must consider that their marketing communication messages, irrespective of the medium used, are not seen in isolation. The effect of the broader environment on reader / viewer response to advertisements has not been a major focus of advertising effectiveness research. However, some research suggests that there may be some very pragmatic reasons for reconsidering placement of marketing communication messages within a violent environment. Prasad and Smith (1994) found that advertisements screened in high-violence programmes achieved significantly less favourable reported attitudes towards the advertisement and the advertised brand than when the same commercial was used in a low-violence environment. Thus, high audience ratings in violent television programmes may actually achieve low communication effectiveness. This phenomenon needs to be investigated in the wider context of media convergence and the use of integrated marketing communications activity that extends across multiple media.

5. Marketing Ethics and Assigning Responsibility

Market forces alone are unlikely to be sufficient to ensure totally responsible marketing communication by all marketers, let alone to provide a quality content / environment for children across all media. While there are some calls for tighter legislation or regulation, censorship is neither a strong preference among parents surveyed, nor a practicality where the Internet is concerned. Censorship is seen, in some quarters at least, as undesirable. Jong (1998: 96) summarizes this view by proposing that "a far better method of keeping inappropriate materials out of the purview of those we deem too young or emotionally vulnerable for them is a system of rating or labelling visual or literary materials so that minors and those who seek to protect them can be forewarned".

This view is developed further by Funk et al. (1999) who cite increasing calls for methods of rating electronic games to reflect the presence of violent content. In calling for one single comprehensive rating system across all electronic media, they stress that the debate needs to be widened as the boundaries between the various media blur. Violence, sex and language would all be included in this rating system, with a common set of descriptors across the media forms. Those providing the ratings are seen as being autonomous, with decisions informed by both research and consumer perceptions. Marketers should heed these calls and consider the implications of moving beyond reactive compliance with existing classification /labelling requirements into a broader all-encompassing system before such moves are forced upon them. Calls for greater accountability should not go unheeded. As one parent phrased it:

> *"I'm not sure I want a 'government controlled' television completely, but I would like a little (or a lot) more accountability in what children watch, and what is forced at them in advertising".*

It cannot be denied that parents also have a major role to play in protecting the young and vulnerable from any harmful effects of new electronic mediums. Their (unsolicited) comments that came through in our study, echo the importance placed on parents in socialising their children by Carlson et al. (2001) and reflected a strong commitment to parental responsibility:

> *"It seems to me by this study that you are taking the accountability from the parents and trying to place it in the hands of the government or some such organisation / group. It is up to the parents to be involved in their children's education and development and as such monitor their TV viewing / game playing – teaching them what is appropriate or not.*
>
> *"I know it is easy for me to say this but it is also very hard. Parents must be responsible for all their children's well being. We cannot rely on other people to make decisions for us and to rescue us from crucial tasks that parents and society in general must uphold. Parents should be able to take time to sit with their pre-schoolers and teach them basic values and principles in order for children to grow up and be secure enough to know what is harmful and harmless".*

Acknowledging the primary responsibilities of parents, we may argue therefore, that those parents who seek to support rigid 'outsider' control of access to electronic media forms and content should consider Jong's (1998:96) observation that "it is unfair for such parents to demand that the state control what they themselves cannot control".

Another theme that came through in the comments was that there is an adult education gap in relation to media control as well as other general disciplinary control of their children. The following comments highlight this

> *"Government control in broadcasting should be eliminated. Parents have to learn to control what their children watch. Adult education might be more appropriate".*
>
> *"Need an educational programme for the parents, some of them need a lot of help on how to discipline their kids in a very reasonable way".*

Thus, both the digital divide among parents, as highlighted in section 3.1, and other related education needs, could well do with focused parental programmes.

6. Concluding Comments

Our study brought to the surface parental concern about potential dangers to children that the new electronic media poses. Nevertheless such concern must be placed alongside considerations such as parents' limited knowledge and understanding of the medium and its unproven, seemingly tenuous links between violence and aggression, as well as the wider issues of the appropriate degree and forms of control and regulation. The need for caution when assigning both responsibility for protection and control, and blame, is aptly illustrated by the comment from an insightful parent provided below:

> *"Too much emphasis is placed on the amount of influence TV/internet / advertising has on children. The majority of children are well able to differentiate between fantasy and truth. Unfortunately a small percentage of children are influenced but in these cases there are usually other factors present such as violence in the home, over indulgence, poor discipline, poor moral standards. Not everyone is born with moral beliefs we can relate to and sometimes even the most stable environment can produce 'monsters'. The inherited versus environment influences in our lives are difficult to categorise. There is too much interference from legislation already. Parents should be free to influence their children as they see fit even if this road does permit the occasional 'monster' to occur. No system is perfect".*

Generally, our study confirmed a willingness of parents to play the primary role in the protection from and control over electronic media and also a key role for parents in developing the skills of their children as critical consumers. Additionally, our study serves to highlight the need for policy to mitigate the parental knowledge gap on new mediums and other related adult education gaps, for instance on available modes of media control, for example filtering software systems.

Our empirical study supplemented by the review of existing literature, leads to significant implications for marketing communication. In the first instance we may assert that marketers should take cognisance of uneven access to, and preferences for, computer-based technologies in developing appropriate marketing communication plans. Parental concerns should be recognized by marketers in developing appropriate and acceptable marketing communications rather than using the emerging media uncritically. For example, Neuborne (2001:109) states that Hasbro executives "regularly visit chat rooms and bulletin boards where toy and tech enthusiasts gather". Given parental concerns regarding this particular form of the new media, such activity may be viewed as bordering on subversive infiltration and therefore undesirable by gatekeepers.

Marketers also have the opportunity to contribute in a more positive manner by building in co-operative learning behaviour and incorporating other beneficial aspects, and in particular less violent story lines in the production of electronic games. High parental preference for interactive educational sites is clear and marketers would do well to heed such preferences and also closely monitor that their site links have equivalency in terms of content desirability. Similarly, marketers must be aware of the frequency with which potentially high traffic websites find a similar-named, but totally 'inappropriate' website emerging and clearly differentiate their sites in a way that enables easy identification via search engines. Strong co-operation by marketers with other stakeholders towards speedily developing a single comprehensive rating system across all electronic media, could also be a firm step toward acknowledging

their ethical responsibility for the protection of the young from detrimental impacts of new electronic media.

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