

Children's Media Use and Responses: a review of the literature

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Children's Media Use and Responses: a review of the literature

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Executive Summary

Children are often overlooked as resourceful participants with opinions, ideas and perspectives in the research and policy arena even when they are important stakeholders. In commissioning this review, the Broadcasting Standards Authority (BSA) has recognised the relevance and importance of research not just concerning children but also involving them. In a rapidly expanding and changing world of new media technology children are the pioneers and vanguards of new and different ways of interacting with media. Former divisions between media platforms are fused and blurred in this new media world to the extent that 'traditional' broadcast media may be accessed in multiple ways. This review of children's use of media and their responses to it is set within this rapidly changing media landscape.

The review examined four major aspects of children and media: physical access, selection and ways of using media, social contexts of media use, and responses to media accessed and used. Literature excluded from the review included the substantive and well-reviewed children and media violence literature and literature concerned with children's health and media use. Literature selected for review spanned diverse methodologies, including observational field research, experimental studies, qualitative interview and focus group research, surveys, and studies using innovative methods such as directly employing new technologies as research tools.

In the remainder of this summary we draw together the main findings from our review of these diverse studies and these are presented below.

1. Children's media access and use

Along with the diversification of media technology in New Zealand homes, children are also demonstrating complex patterns of multitasking in media use.

Despite the high levels of multimedia use in many New Zealand homes, there is also concern about the equity of media access, content, and representation in families in lower socio-economic groups.

The interactivity of new media suggests positive potential for helping children fine-tune cognitive skills, and also offers ways of helping children to be even more involved when interacting with media.

Future research needs to tackle the complex and challenging area of elaborating knowledge and understanding of how children manage the web of possible interactions and uses that new media presents.

2. Social contexts of media use

Although children increasingly have a range of media equipment in their bedrooms, children and young people often use media in the company of others – with families in the lounge, siblings in a bedroom, or with friends on Instant Messenger, for instance. As much as media facilitates social interaction, social interaction can also facilitate media use.

The place that television and other media equipment have in a home depends on family structure and demographics, and a range of practical and moral issues; it is also influenced by how families organise their space and their time.

3. Children's media responses

Ways that children respond to the media are complex and influenced by factors as diverse as experience, culture, social environment, age, and gender. Accordingly, children's responses to violent or frightening material, or to sexual content, cannot be assumed to be negative or harmful.

New media, through inter-connectivity and access to global content, magnifies the potential for children to be exposed to disturbing or sexually explicit material,

yet much of what we 'know' here is anecdotal, speculative and sometimes alarmist.

Much of the literature reviewed dispels notions of television as an 'ogre' adversely affecting and influencing children. Findings on the relationship between children's 'work' and leisure accent the positive ways in which children engage with television material.

From the findings of our literature review overall, we agree with other researchers (eg Anderson and Pempeck, 2005, Buckingham et al, 2003, 2006; Calvert, 2001; Gauntlett, 1998; Livingstone, 2004; Wartella et al, 2000) that while developing children have much to learn about the current and new media landscape, rather than being naïve and unsophisticated, they are active agents in their relationships with media and bring with them a host of skills and knowledge. The challenge for the future is to study in an interdisciplinary theoretical and methodological fashion how children's cognitive, social, and ecological development interfaces with their media use, access, and responses.

1.0 Introduction

Over recent decades, there have been significant changes in media platforms and the technology used to interact with them. Unfortunately, the pace of research about the use of such media lags dramatically behind the advance of technology: what is 'new' technology in research is 'old' in children's everyday lives. The effect of the time-lag means that in this field of research, even more than most, older research can quickly become out of date. The results of older studies cannot be assumed to be relevant to the experience of children today (Browne, 1999; Zimmerman and Christakis, 2005). While the 'older' broadcast media, radio and television, are of most relevance for this BSA review, the emergence of multitasking and the intertextual use of media makes the inclusion of 'new' media research both important and salient.

Our review recognises the substantial body of literature discussed in previous international and New Zealand-led reviews but it presents a marked departure from these reviews around its points of focus. By way of content, much review work has focused principally on the negative effects of media portrayals, particularly violence but also 'addiction', the learning of aggressive behaviours, impairment of family life and school performance, and detrimental health consequences (eg *Working Group for TV Violence Project*, 2004). Addressing this negative bias, our review also highlights positive influences in areas such as peer interactions, skill development, media literacy, and creative play. Emphasis in previous reviews has also been largely on quantitative approaches to researching children and media. However, one of the most significant changes since the 1990s has been the increasing role of qualitative work, and we have accordingly highlighted qualitative literature in this review.

Somewhat problematically in the authors' view, much of the 'media effects' literature to date has adopted what critics have christened the 'hypodermic model of media effects', with the media message injected cleanly into the viewer who absorbs it completely and unquestioningly. Across diverse fields, alternative perspectives have arisen to challenge these assumptions. Within cognitive developmental psychology, the attention-comprehension perspective has emphasised that children are cognitively active participants, selecting, processing, evaluating, and interpreting the media by using their own experience (Huston, Bickham, Lee, and Wright, 2007). Within constructivist perspectives in the social sciences and 'New Audience Research' in media studies, researchers have explicitly positioned viewers as actively engaged with the media in co-constructing meanings, cultures, and identities (Arthur, 2005). Within sociology, the needs and gratification approach has emphasised that children's own needs and preferences are instrumental in determining children's media use (Krosnick, Anand, and Hartl, 2003). Influenced by these perspectives, a new way of viewing children and the media has come to the fore, moving beyond the limitations of a unidirectional effects model. We give particular attention in this review to research that incorporates the views of children about their engagement with the media.

Perhaps somewhat predictably, much of the review work to date has focused on North America, ignoring research from Europe and elsewhere. With respect to New Zealand perspectives, there are BSA-commissioned public attitude surveys to standards of good taste and decency and violence on television (eg Dickinson, Hill, and Zwaga, 2000) and also key discussion papers on representations of children and youth in the New Zealand media, and about children's media consumption (eg Lealand, 2004). Importantly, there is flourishing modern empirical research in New Zealand on children and television that spans a variety of disciplines and theoretical perspectives. For example, New Zealand researchers have looked at how youth make sense of gender and sexuality in the media (eg Jackson, 2004, 2005; Jackson and Gee, 2005); the cognitive skills children bring to their television learning and viewing experiences (eg Low and Durkin, 1998, 2001); and how characteristics of new media such as video games not only invite engagement from children and adolescents but foster constructions of families and communities (eg Carr, Buckingham, Burn, and Schott, 2006).

There is also unique research discussing how self-identity and national and cultural development in children and youth in a small media market such as New Zealand could be, in part, fashioned by global market forces and media outputs from affluent nations (eg

Zanker, 2001). In recognition of research work in the New Zealand context, this review incorporates New Zealand material wherever possible.

Before turning to the content of specific chapters within the review, it is important to highlight the areas and aspects that are excluded in accordance with the parameters requested by the BSA. The period of the review largely excludes pre-1997 literature and specifically review of literature regarding children, media and violence that is already well documented. The requested age range of 5-14 years has largely been adhered to, except where studies have used broad age samples including older teens and younger children without providing any break-down of age in the discussion of findings. Other omissions speak more to the availability of literature than the parameters of this review, in particular the paucity of New Zealand research reporting on other than mainstream Pākehā participants. Nor is there a healthy volume of literature, national or international, related to new media and their technologies. Given the rapidly increasing use of new technologies to access 'older', more traditional media such as television and radio, new media literature peppers the review where it is both available and relevant to the subject matter.

The review is organised around issues of children's access to, use of and responses to the media, incorporating both 'older' and 'new' media. The next chapter focuses on physical access, the media available to children, their knowledge of various media, and the role of media use in relation to other everyday activities. The social context is a highly salient factor in children's use and response to media, and in the following chapter the influence of family and peers is reviewed. We then consider children's responses to media in the areas of sexual content and emotional content; for each we present a more in-depth illustration. In the final chapter of the review we reflect on the literature as a whole to consider its gaps and its methodological strengths and weaknesses as a context for identifying directions for future research.

2.0 Children's Media Access and Use

...if I'm not with my phone I put it on beep so I can hear it ... so I don't always go look for it (Hannah, 13, Nimmo, 2006)

Hannah's strategy for ensuring she knows when she receives messages is a graphic example of young people negotiating rapidly expanding forms of media technology. Not only have diverse media forms appeared in the last decade, but also the ability to access the same media content in different ways. Radio interviews can be 'streamed' on a home PC, mobile phones can be used to browse the internet, and music can be downloaded from multiple sources using digital technology.

In this chapter we draw together the research that addresses the questions: what media are children accessing and using, and to what extent? As Buckingham (2000) points out, there are different dimensions to the term 'access'. In this chapter, the term is used in relation to physical aspects of availability, uptake (use), and social equity. One particular focus is on the impact of 'new' media on patterns of access across 'older' media.

2.1 Access over time

In 1975 television was still in its infancy in New Zealand. Ten years later it was ubiquitous, although limited to two state-owned channels until 1989. Statistics from the New Zealand Television Broadcasters' Council (2007a) document the introduction of various media in New Zealand homes since the arrival of television. In the early 1980s the introduction of video recorders led the charge of new media technologies which have remapped the landscape of the household media environment. Much of the growth took place in the 1990s with the home PC's arrival in 1993 and internet access in 1996. The new millennium saw the start of a steep rise in DVDs in the home, growing from 10% of homes in 2002 to a little over 60% in 2005. By 2005, more than three-quarters of households had a VCR, and C4 and Prime reception. So too, the majority of households had more than one television (65%), a PC (68%), a DVD player (68%), and access to the internet at home (60%). Additionally, statistics reveal that around 40% had a Sky subscription, and more than a quarter had a gaming console.

In an update of children's ownership of media technology, Lealand and Zanker's (forthcoming) 2005 survey reveals that almost half of their participants (47%) have personal access to a mobile phone, 15% have an iPod or MP3 player, 40% have a games console in their room, and 43% have a computer (24% with and 19% without a modem). While the rates of personal ownership or access for some of these mediums are slightly below those reported in a sample of 8-18 year olds in the United States (Roberts, Foehr, and Rideout, 2005), New Zealand children are more likely to own a computer, have access to the internet, and have personal access to a cellphone than American children.

Surveys of New Zealand children have confirmed relatively high rates of computer and dial-up internet access – for instance, the eGeneration survey found that 78% of 6-17 year olds had used the internet in the last week (Reddington, 2005). The main activities young people report doing on the internet are homework, email, looking at websites, and games (Lealand and Zanker, 2003; Reddington, 2005). More than a third of the eGeneration sample also reported using the internet for music, competitions, and instant messaging.

While children in New Zealand have reasonably high rates of access to computers and the internet (Statistics New Zealand, 2004), they are less likely to have broadband than children in many of the other countries surveyed by the OECD, with the exception of the United States. Reddington (2005) noted that those young people with broadband reported doing a greater variety of activities on the internet. Fast connection speeds mean that users can easily download games, music videos, songs, and TV shows, and

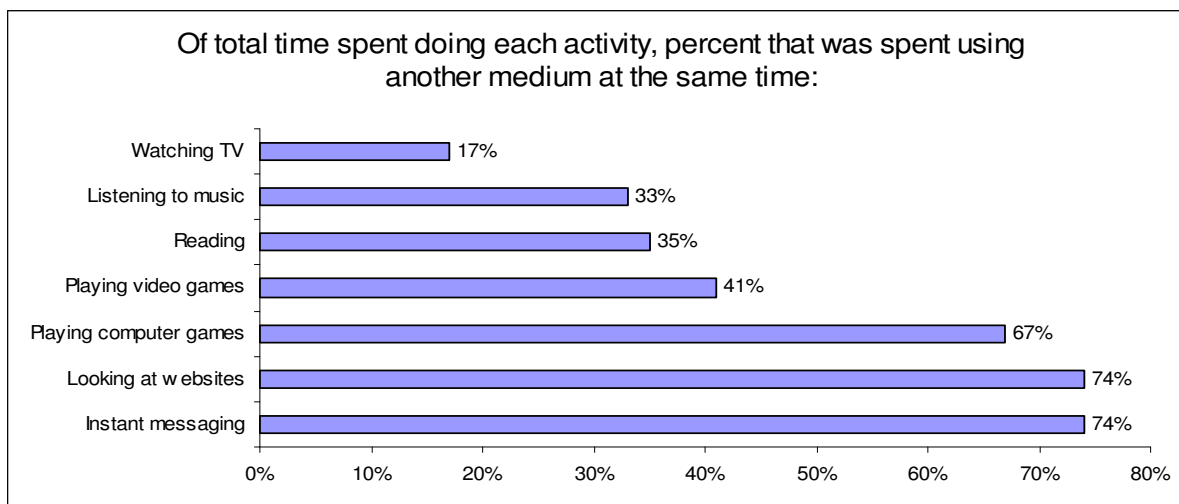
thus, as New Zealand catches up with the rest of the world in terms of access to broadband, we might expect to see changes in how children use the internet.

2.2 Patterns in media use over time

As revealed in these statistics, multiple new media technologies are increasingly available in the homes of New Zealand children. There is an apparently logical assumption to be made – if children spend more of their finite leisure time with new technologies, they will have less time to spend with the old media technologies of television and radio. This assumption is not borne out in analysis of trends over time when we examine television and radio audience research. Useful data in this regard has been gathered in the context of research designed to calculate ratings. Gathered in real time, rather than by retrospective report, ratings research uses a highly accurate measure of viewing of those involved. (How valid the interpretations made about national ratings for individual children's programmes are is more open to question, see Lealand, 2004). To gather the ratings, 'Peoplemeter' equipment is installed on every piece of television equipment in each of the 500 houses in the panel, including the televisions, VCR, and Sky decoder. A handset is used to register who in the house is watching. The viewing information is recorded and transferred to ACNielsen each night by modem (New Zealand Television Broadcasters' Council, 2007b). When we look at the viewing figures for 1994 to 2006 for New Zealand children, there is no evidence of a steady decline. Throughout the decade, children aged 5-9 and 10-14 have watched approximately two to two and a half hours of television per day (New Zealand Television Broadcasters' Council, 2007b).

An historical analysis of radio listening from 1988 to 1998 also found that, if anything, 10-17 year olds were listening to more radio than they used to. This may reflect the greater choice for New Zealand youth following deregulation, and is in contrast to the historical trends in Australia (Shanahan, 2000). Thus, children are spending more time with new media such as the internet and videogames, without cutting back on television and radio (Jordan, 2004; Roberts, Foehr, and Rideout, 2005).

Recently, researchers have highlighted a novel way of looking at media use that helps to explain these new patterns of media use. Traditionally, researchers have not analysed shared media time, but new investigations of 'multitasking' have proved illuminating. One of the most intriguing findings from the annual Kaiser Family Foundation media surveys in the US is the finding that children are spending more time multitasking media (Foehr, 2006; Roberts, Foehr, and Rideout, 2005). Media multitasking is especially common for new technologies such as instant messaging, internet browsing, and computer games. Hand-held technologies such as portable videogames and mobile phones with text capabilities make media multitasking easier than ever before. Computer use fosters multitasking with periodic interruptions (eg message alerts) and waiting periods (eg downloads); indeed, young people are multitasking more often than not when using these media (Figure 1, Foehr, 2006). A fifteen-year-old girl participating in one study claimed, 'I'm always talking to people through instant messenger and then I'll be checking email or doing homework or playing games AND talking on the phone at the same time' (Lenhart et al, 2001).



NOTE: This chart shows the proportion of time spent 'media multitasking' each medium with any other medium, regardless of which activity was primary and which was secondary because diary correspondents could mark secondary activities. This proportion is inflated by those instances when multiple media activities were indicated.

Figure 1: Media multitasking among US 8-18 year olds (Source: Foehr, 2006)

When the number of hours exposure for all media is added cumulatively, the Kaiser Family Foundation studies point to a one hour increase in media time from 2000 to 2005. While the actual number of hours spent interacting with the media remained constant across this period (Roberts, Foehr, and Rideout, 2005), findings suggested young people were spending the same amount of time interacting with media, but were doing more things within it. What we don't know from this research is the relationship between multitasking and content: do young people use multitasking, for example, when they encounter media material that they don't like? Foehr (2006) suggested that it might be explained in part by the cognitive demand of various media-related tasks. Using a questionnaire and media-use diaries, Foehr (2006) found that the activity most likely to be done by young people while watching television was eating or doing chores, which could be explained in terms of the sustained cognitive engagement that television involves, compared to the shared attention given to multiple activities on the internet – for instance, IM, email, and looking at websites. The media-use diary is an effective means of collecting details about children's multitasking activities, and even greater details might be obtained by qualitative investigation. Observational studies, for instance, might show us more about how these multiple activities are juggled in 'real time' and show how multitasking is also incorporated into the ongoing interactions within the household (eg over the use of the computer or the phone line at the same time as family meals or when 'family TV shows' are on). Such issues as monitoring of children's media access in the home are examined in chapter 3.0 The Social Contexts of Media Use.

2.3 Current media access

Television is still the dominant medium for children internationally, and New Zealand is no exception. Access to television is nearly universal in New Zealand. Around three-quarters of New Zealand children watch television every day, and very few (2%) do not watch television at all (Lealand and Zanker, 2003). Parents rate television as the most important type of media for their children's entertainment (Reddington, 2005). When New Zealand children aged 6-17 who had internet access were asked to name media they wouldn't be 'able to live without', television headed the list overall, and especially for the 9-11 year olds (Reddington, 2005). New Zealand children and young people report spending more time watching television than interacting with any other type of media, as shown in Figure 2 below (Reddington, 2005).

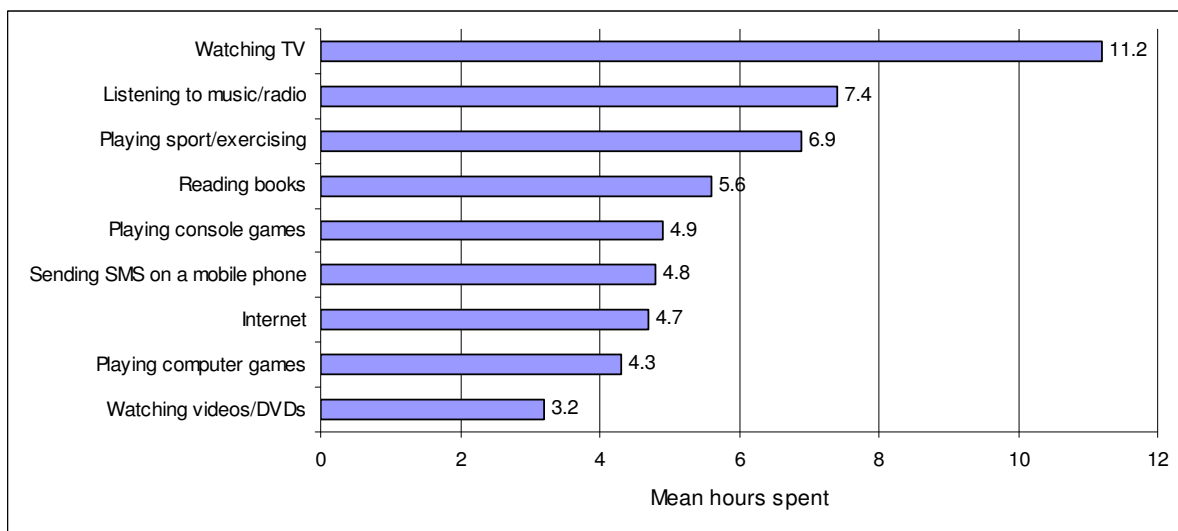


Figure 2: Average time reported spent with media per week for 500 New Zealand children 6-17 who use the internet, in 2005 (Source: Reddington, 2005)

Ratings data suggest that children aged 5-14 watch approximately two to two and a half hours of television per day. This figure is similar to the overall average of two and a quarter to two and three-quarter hours viewing for ages 5-15 reported in the Otago longitudinal study (Hancox, Milne, and Poulton, 2005). A slightly lower figure of one and three-quarter hours was reported by Walters and Zwaga (2001) from parental reports of children's television viewing. Both sets of research data are comparable to a US report of white children's (8-18 years) average two and a half hours of television watched each day, although data for black children was considerably higher at four hours a day (Roberts, Foehr, and Rideout, 2005). European figures for 6-17 year olds range from over two and a half hours a day for Denmark and the UK to approximately one and a half hours in France, Switzerland and Germany (Livingstone, Holden, and Bovill, 1999). In East Asia, viewing figures for preschoolers for TV (including videos and DVDs) range from one and three-quarter hours in Beijing and Shanghai children to a high of three and three-quarter hours in Tokyo.

The popularity of television seems to closely rival radio (Reddington, 2005) with one New Zealand study (Walters and Zwaga, 2001) reporting over three-quarters of children (84%) saying that they 'ever' listen to the radio. In this same study, parents reported that children most frequently listen to the radio in the car (67%). Although the authors suggest that the music is probably chosen by the parents, this may not be the case. Research in the UK, for example, found that control was mixed, and that parents may let their children choose the radio station for the sake of 'peace and quiet', particularly on long trips (Millwood Hargrave, 2000). Given the choice of what they listened to, children in the study selected 'current hits', 'contemporary music' and 'mainstream' stations. The availability of music and radio appears to be more important to older children, both in New Zealand (Reddington, 2005; Walters and Zwaga, 2001) and overseas (Livingstone, Holden, and Bovill, 1999), and for New Zealand children the selection of stations is particularly diverse with more radio stations per head of population than in any other country (Neill and Shanahan, 2004). However, despite the increasing diversity of content and youth radio options following deregulation (Shanahan, 2000), there are no radio stations primarily aimed at children (Neill and Shanahan, 2004).

2.4 Does TV take children away from other leisure activities?

A longstanding concern about children's television viewing, particularly amongst parents and educators, is that it distracts from tasks considered important like school work. Another concern about the pervasiveness of television in children's lives focuses on displacement – if children spend the vast majority of their time watching television they will have less time for other cognitively stimulating activities, creative play, and sports

activities. One of the biggest complaints about media is that it means 'children don't play like they used to' (*The Age*, 2004). Research is equivocal on this point. In one review, Krosnick, Anand, and Hartl (2003) reported that cross-sectional studies have found a weak but negative relationship between the amount of time spent watching television and a range of out-of-school activities including sports, participation in organisations, hobbies, and artistic activities. A recent longitudinal study tracked the television watching, leisure time, and physical activity of over 10,000 American children over four years, and found no relationship between changes in television viewing and the amount of activity or leisure children engaged in (Taveras et al, 2007). It was concluded that rather than being 'functional opposites', television, and leisure time and physical activity, should be considered as two separate constructs. However, there are a number of assumptions that maintain the belief that television has displaced imaginative play or leisure activities.

One initial point is that the way in which children play or engage in leisure activity is always the product of an historical, social and cultural context. Sutton-Smith's (1981) history of children's play in New Zealand describes how play was dependent on time, money, and daily routines. Toys were the things that children found – for instance, toetoe decorated into horses, wheel rims used as hoops, and flax made into skipping ropes. The toys of today are provided for children rather than made by them, and these are increasingly electronic – 'inside' toys requiring batteries if not a mains socket. If children are spending more time playing inside, it is because their worlds have been furnished in a way which encourages them to do so. The increasingly home-based activities provided for children coincide with the increased fear regarding children being unsupervised outside. Many children would not be allowed to go and collect toetoe and flax without being in the presence of an adult. The internet and mobile phones allow children to interact and effectively 'play' within the safety of their homes. While they may not be out playing with nature, children are creating entirely new games with a range of digital toys at hand – rather than bemoan the demise of marbles and knucklebones (which, despite media accounts, still appear regularly in school playgrounds, see Butler, 2007), we might instead recognise and appreciate the social and technical competencies that are involved in children's play these days. As it stands, concerns about the changes in how children play reflect not only the pull of new media technology, but also the push of parental beliefs about childhood, child protection, and how children ought to play (eg Belton, 2001; Browne, 1999; Livingstone and Bovill, 1999).

Claims about the demise of children's play and leisure may have been overstated. Although much of their leisure time is spent watching television, Lealand's (2001) surveys of New Zealand school children (8-14) found that traditional play was still a primary leisure activity. New Zealand children themselves report that they take part in a wide range of leisure activities, with a majority actively taking part in out-of-school sports (see Wylie, 2001).

Another consideration, as Anderson et al (2001) pointed out, is that the notion of media supplanting traditional play in young children is based on the mistaken assumption that it is the overwhelming attraction of television that is the cause of the reduction in other activities. As we noted in the opening of this section, even very young child viewers are selective in what and how they watch media. Consequently, children may only choose to focus on television when other options are not available or not appealing (Krosnick et al, 2003). Research seldom investigates how children themselves see the relative attractiveness of leisure activities, and whether television is overwhelmingly attractive. In one illuminating exception, Livingstone and Bovill (1999) asked children about what three things they would do on a really good day versus a really boring day: only a few (14%) would seek television on a really good day. The most popular activities were going to the movies (41%), seeing friends (39%), and playing sport (35%).

Media use may also work to facilitate the development of other interests. For example, a young person's interest in sports may be expressed in both playing sports and watching sports on television or playing sports video games, with these different expressions potentially activating and reinforcing the level of interest in one another. Consistent with this idea, teenagers who watch more sports on television have been found to be more likely to play sports or do athletics, read more sports magazines and newspapers, and identify sporting figures as their role model (Anderson et al, 2001). Interest in music

provides another example; a German study of 10-18 year olds found that heavy radio use was linked with music-related activities, interest in music, and playing a musical instrument (Boehnke, Munch, and Hoffman, 2002).

Such patterns of interconnectedness between media and other activities underline the plural nature of media use amongst children in modern technological societies. Accordingly, pinning imaginative and play behaviours amongst children to the influence of traditional media platforms is becoming more problematic as media images occur in many different platforms concurrently appearing on television, in movies, books, comics, toys, computer and console games, in junk mail and on clothing, in food and other miscellaneous items, and in peer group interactions. Even when children do not have direct access to them, the themes and characters from popular media culture may still be a part of their world (Arthur, 2005; Marsh, 2005).

2.5 Internet and the digital divide: inequities in access

As noted earlier, New Zealand stands out as having relatively high internet use and access in international comparisons. However, not all children have access to new technology in the home because ownership of new media is not equally distributed (Woodward and Gridina, 2000), which immediately has implications for computer literacy skills. The gap between those who have computer and internet access and skills and those who do not is known as the digital divide. Within the group of those who do have computer access other dimensions of the divide exist – for example, those who can afford broadband, with its downloading capacity advantages, and those who use the more limiting but affordable dial-up system (see also 3.2.2 of this report). In New Zealand's information society, the lack of such access or skills is seen as having negative repercussions for employment and education prospects (Statistics New Zealand, 2004), and more broadly for social inclusion.

For young people on the 'right side of the digital divide', internet information may be part of the fabric of their lives (Green and Hannon, 2007). A survey in the United States found that the internet was an important source of information for 10-17 year olds for homework and school projects – being rated by young people as more important than parents, library, or friends (Kaiser Family Foundation/ *San Jose Mercury News*, 2003). Homework is also a leading reason why New Zealand children access the internet (Lealand and Zanker, 2003; Reddington, 2005; Wylie, 2001). The internet is also an important source of information for young people's personal lives, particularly about popular culture, potential purchases, and current events, but also to a lesser extent for health or personal issues (Kaiser Family Foundation/ *San Jose Mercury News*, 2003; Kunkel et al, 2005). New Zealand families with children are more likely to have internet access than those without (Statistics New Zealand, 2004b). The main reasons given for getting an internet connection are for work purposes and for children's study/education (Aisbett, 2001).

Evidence of a digital divide based on socio-economic status has been found internationally, including in the United States of America, United Kingdom, Australia and New Zealand (Weatherall and Ramsay, 2006). New Zealand census data confirm that internet access is greatest amongst households with higher incomes and more education (Statistics New Zealand, 2004b). This in part explains the pattern that Māori have significantly lower levels of internet access, internet use, and computer ownership (Statistics New Zealand, 2004; Te Puni Kōkiri, 2000). Single-parent households are less likely to have internet access. In 2001, just over half of all families with a child aged 5-19 had internet access, compared to just under a third of single-parent households (Statistics New Zealand, 2004). However, research in the United States (eg Roberts, Foehr, and Rideout, 2005) and Europe (Livingstone, 2002) has found that while low-income and single-parent families were less likely to have access to the internet and other media equipment, when they did have it children in these families were more likely to have personal ownership than children in wealthier or two-parent families.

Much of the emphasis in research has been on access to information technology; however, this is only one part of the picture. The New Zealand Government's Digital Strategy proposes a threefold conceptualisation:

- Content: The availability of information, particularly uniquely New Zealand information
- Confidence: The skills to use information communication technology (ICT) and a secure environment in which to do so
- Connection: Getting access to and using ICT.

Disposable income is a central factor in limiting connection in lower socio-economic and less educated families. This may be a particular issue with new technology such as internet access which requires ongoing payment of bills, rather than just a one-off purchase as with a television. Confidence may be hindered by limited literacy or literacy in English, and by people not having other computer users in their social networks with the necessary skills to help them get started. Without training, the internet may be seen as the realm of others. In a novel perspective on content, Ross Himona (2003) sharply rebukes academics and other members of the elite for focusing narrowly on internet as an information technology. It is also, he reminds us, an entertainment technology, and as such decisions may well be made about whether to take it up according to its worth as an entertainment medium.

The adoption of the Music CD, VCR and digital TV technologies by poor people in my country puts the lie to the concept of a digital divide in Aotearoa New Zealand. Poor people adopted those quite expensive technologies regardless of their economic circumstances, and they adopted and paid for access to those technologies in order to gain access to entertainment, i.e. to music, movies and sport. In the poorest areas of Aotearoa New Zealand houses and shacks bristle with CD players, VCRs and digital TV dishes.

They don't yet bristle with computers, for the simple reason that there is very little of interest to local people on the Internet. There is no content that would excite their interest. The so-called 'digital divide' is as much a content and a cultural divide as an economic divide.

Internationally, there are a number of projects to help break down the digital divide, through community computing centres, city-wide initiatives such as free broadband, and school-supported home-based programmes. Quantitative evaluation of broader positive outcomes of such initiatives is difficult, and rarely achieved. Qualitatively, these projects are often successful and positively received (Subrahmanyam, Greenfield, Kraut, and Gross, 2001). Innovative projects such as New Zealand's Computers in Homes scheme have successfully introduced internet access to low-income families (Williams, Sligo, and Wallace, 2005). For a joining fee of \$50 paid to their school, families receive free training, a recycled computer, and six months free internet connection (see www.computersinhomes.org.nz).

2.6 Summary

As we move further into the millennium, we see interesting patterns of media access and use beginning to emerge in the body of descriptive research that is available both in New Zealand and internationally. In closing this chapter, we highlight the key points in the research to date:

- Survey statistics reveal increasing diversification in the kinds of media technology available in New Zealand homes, allowing a good number of children access to television, computers, DVDs, video, radio, and mobile phones.
- Despite New Zealand's relatively high level of internet access compared with other countries, there is warranted concern about the equity of distribution with some evidence that families in lower socio-economic groups are deprived of access and, accordingly, skill in the use of computer technology.

- Accompanying the growth of newer media technologies we see a pattern of multitasking amongst children accessing and using media. The effect of this is that older media forms such as radio and television remain popular while other forms such as the internet and mobile phones are added to the media diet. Indeed, multitasking is facilitated by the nature of new technologies that can be used for multiple purposes.
- Findings on the relationship between children's 'work', leisure and television watching accent the positive ways in which children engage with television material.
- As will be frequently echoed throughout this review, new media research has some way to go to catch up and we currently have little information on the ways in which children respond to different kinds of content, underscoring the need for further research.

3.0 The Social Contexts of Media Use

Both old and new media form part of a cultural and social landscape – and many of the activities done with them take place among groups of people. Consider the family on the couch watching TV, young people in a chat room or listening to music in a bedroom with friends, or a group of six year olds playing 'Harry Potter' or Pokemon in the school playground. Media facilitates particular types of social interactions, and the implications of the social factors of media use reach far beyond the moment at which the media is actually used. As research has begun to extend beyond the cause-and-effect model that characterised early work on television, it has become increasingly apparent just how central the social experience of media use is to what children and young people understand of new technology, and the benefit or otherwise they take from their use of it. Talk and social interaction between parents and children while watching television may potentially mediate the positive and negative effects of television watching. In this chapter we address two key social contexts which both influence, and are influenced by, children's media use – the home environment, and the peer context.

3.1 *Media in the home*

The introduction of television saw a radical shift in the organisation of family homes. From the 1950s, television sets began to take pride of place in the living room – a space traditionally used primarily for entertaining guests (Buckingham, 2000). The television was once very much the 'hub' of the family home – there was one per household, and the family would gather and sit together on the couch to watch it. As media technology has become cheaper and more accessible to a wider proportion of society, there have been changes not only in the quantity of media equipment that people have access to in their homes, but also in terms of where this media is located in the home, and the related issue of whom the equipment is provided for. In many developed countries, most families now have televisions throughout the house, not to mention all the other electronic media equipment that now fills homes, such as computers, stereos, DVD players, video cameras, mobile phones, iPods, games consoles and so on. Whereas once the only media children owned personally were books, a recent American survey found that most children over the age of eight owned (or had in their bedroom) a television set, a VCR/DVD, a radio, a CD/tape player, a video game player, stereo, a discman/walkman, and a handheld video game. More than 30% indicated they had cable or satellite TV at home, and more than half of the children surveyed had their own cellphone (Roberts, Foehr, and Rideout, 2005).

Following a research design used by Livingstone and colleagues (2002), Zanker and Lealand (2006) asked New Zealand children between 8 and 13 years old to draw their dream bedroom – free of any practical or financial constraints. In addition to wishful features such as spa pools, and traditional media such as posters and books, these wished-for rooms tended to be full of electronic equipment – a wall of flat screen TVs, enormous speakers, numerous telephones, computers, game consoles and so on. In discussing these drawings, the children made evident both their knowledge about new media equipment and their interest in having personal access to it. Livingstone (2002) notes that for children the 'bedroom is the key site in which their fantasies of who they are and who they might yet be are perhaps most readily expressed', and their designs for their dream rooms demonstrate how strongly media features in this identity.

Surveys of children's media ownership suggest that children's desires for media-rich bedrooms are increasingly being met, with rising numbers of children having media equipment in their bedroom. The rise of this 'bedroom culture' (Bovill and Livingstone, 2001) is perhaps one of the biggest changes to have taken place in the home environment over the past few years. In this chapter we discuss the influence that media technology has on the contemporary home context, and how it is used or incorporated into family routines and interactions.

3.1.1 'Bedroom culture'

Children over the past few generations have generally had media-rich rooms – books and posters and stereos have formed part of the young person's bedroom landscape for many years now. The bedroom is often a place where children illustrate their interests, and their individual sense of self and identity. The bedroom is also a place for friends, it is where one takes friends to talk privately, to play, or just 'hang out' free from parental observation (Bovill and Livingstone, 2001; DeNora, 2000; Lincoln, 2005; Livingstone, 2002).

Whether children's private ownership of mobile phones, televisions, computers or game consoles is a 'good' or 'bad' thing has been extensively debated. Private and personal media use is often tagged as being one of the key reasons for the growing impact of media upon children's everyday lives, and is tied up with a myriad of concerns about children's emotional, physical, social, educational, moral, and cognitive wellbeing and development. At the heart of this debate are moral judgements as to what is 'good' or 'bad' for children and young people, and the related issue of what makes for 'good parenting'. The ideological basis of assessments of the costs and benefits of media use, and how best to regulate media, rests on socially constructed notions of childhood and parenting, and may also play a part in producing and reproducing these ideologies. Livingstone (2002) suggested that children value the sense of independence and privacy that personal ownership of media technology can offer, but this runs counter to culturally bound constructions of childhood where children are dependent – 'A child alone in her bedroom may be seen ... not only as rejecting "the family" but also as escaping the status of being a child, as exercising a certain independence' (p. 142). Livingstone also notes that concerns are absent with respect to the positively valued activity of reading books, where a child may sit alone wrapped up in an uncensored fantasy world for hours, with no apparent negative consequences.

A large-scale European survey found that less than 20% of parents thought it 'mainly a good thing' for children to have a TV set in their room, and 30% said it was 'mainly a bad thing' (Livingstone, 2002). Regardless of these low figures in terms of support for the value of children's personal TV ownership, in Britain nearly three-quarters of children have a TV in their room (OFCOM, 2006), as do more than two-thirds of American children (Roberts et al, 2005). These high, and increasing, rates of personal ownership offer evidence for the growth of what has been termed a 'bedroom culture' in relation to children's leisure activities (Buckingham, Davies, Jones, and Kelley, 1999). New Zealand children are less likely than their overseas counterparts to have a television set in their bedrooms, but this rate is increasing. Surveys conducted in 1999 found that between 23 and 30% of children in New Zealand had their own TV set (Walters and Zwaga, 2001; Lealand, 2001), whereas at this time around 50% of children in Britain, Europe, and the United States had their own television. However, a 2005 survey of 860 New Zealand children aged between 8 and 13 found that nearly half of the children reported having their own TV set (Lealand and Zanker, forthcoming). This most recent New Zealand survey also found that personal ownership of other technological equipment (such as mobile phones) was also on the rise, and demonstrates the increasingly media-rich worlds of this generation of children.

Whether or not children have personal access to media (ie in their bedroom) is associated with the socio-economic status of the family – although in somewhat counter-intuitive ways. While families in a low SES group are less likely to own various forms of media, when they do, children from poorer families are more likely to have a television or computer in their bedroom than wealthier children (Gentile and Walsh, 2002; Livingstone, 2007; and see Livingstone and Bovill, 2001; Roberts, Foehr, and Rideout, 2005). Also, children in single-parent families are more likely to have a TV or computer in their own room than those in two-parent families (Pasquier, 2001). There are also differences regarding the values that parents in these groups report with regard to media ownership – those in lower SES groups were more likely to agree that it was 'a good thing' for children to have their own TV, while wealthier families were more likely to claim it was a 'bad thing' (Livingstone and Bovill, 2001). Part of this might be accounted for by the value that media equipment holds as an affordable leisure activity – although it is important to avoid interpretations such as that offered by Roberts et al (2005) that African-American children

are more likely to have their own TV because 'African Americans are particularly attracted to TV' (p. 15). Those parents who are unable to provide a computer for their children also say that they want their children to know more about computers (Livingstone, 2007). Additionally, parental education plays a role, in that parents with higher education levels are less likely to have a computer in a child's bedroom (Livingstone, 2007).

Family structure, parenting style (eg authoritarian, democratic), demographics, and even the changing nature of family life more generally also shape how media is valued and used. For instance, in poorer families, money for entertainment is limited and television thus provides an affordable and positively regarded leisure activity in the home (Livingstone, 2007). Interviews with low-income mothers have also found that they view watching television with their children as a valued and important 'bonding' time (Tubbs et al, 2005). Cultural differences in terms of whether young people watch with family or alone have also been noted, and can be explained in relation to wider cultural and social patterns. For instance, the communal nature of family life in Spain is associated with less time spent in bedrooms, and a predominance of family viewing; whereas the peer-oriented culture of Finland sees young people much more likely to use media with friends (Bovill and Livingstone, 2001). It would be interesting to determine how cultural practices within New Zealand might shape viewing behaviour, and family interaction, with respect to media.

Practical issues can shape values about whether personal media ownership is a 'good' or a 'bad' thing for children, with explanations for where media equipment is situated and used in the house including the size of the house, whether or not a parent works from home, whether the children attend day-care, or the extent to which a family tends to watch together and share watching preferences (Livingstone, 2002). In many ways, media use in the home and by family members is integrally related to the organisation of family life, and the everyday management of time, place, and activity that constitute the family routine (Gauntlett and Hill, 1999). The organisation of the family and their routine interactions can influence the placement of technological equipment in homes, in addition to shaping the kinds of social interactions that take place with respect to media. Gauntlett and Hill (1999) suggest that television may serve as 'a catalyst for forms of domestic organisation of time and space', and is often 'a primary determining factor in how households organise their internal geography and everyday timetables'. The use and placement of computers in homes might also be included. For instance, computers may be positioned in order to allow for surveillance of children's computer and internet use (Livingstone and Bovill, 2001; OFCOM, 2005; Ward, 2003).

One concern that is raised with respect to children having a television set in their bedroom is that they will watch more television – something which appears to be the case. A study of British and Dutch children found that those with a set in their bedroom reported watching on average half an hour more TV than those without (van der Voort et al, 1998). However, it is not clear whether private media ownership causes this greater use, or whether those who spend longer with media are those more likely to acquire their own equipment (Livingstone, 2002). Furthermore, the 'details' of children's bedroom media use have not been accorded much attention. For instance, it is not known whether bedroom media use 'displaces' other activities, and how this extra half hour or so is figured into the children's everyday activities – do children watch more because they watch with their family as well as by themselves? Is it because they watch in bed when they are meant to be asleep? Or is it because they multitask, and watch TV while doing homework, talking on the phone or reading magazines? More research is needed – particularly in New Zealand – to establish how bedroom media fits into children's lives, and how it is used in relation to other household activity and interaction.

Lincoln (2005) offers a detailed account of how teenagers use music 'like wallpaper' in their bedrooms, as part of establishing their cultural biography and creating 'soundtracks' for their social and cultural lives (see also DeNora, 2000). Drawing on interviews with young people in their bedroom, and photos of the bedrooms taken by the occupant, Lincoln discusses how new media forms have meant an increasing number of ways in which music could be enjoyed alone and with friends (either in the bedroom or in the virtual community). The tastes of parents and siblings as well as of friends played a part in influencing the preferences of young people, which resulted in an eclectic mix of

contemporary music listening. Although music tastes might be shared, the 'listening experiences' of young people were primarily individual and occurred separately from other family members. For those who shared bedrooms with siblings, this could be problematic as the room becomes a 'contested space'. Placement of posters and use of media are two ways in which space is contested and defined in shared rooms, marking out both spatial territory and distinct identities.

3.1.2 Watching together

The presence of media in children's bedrooms does not necessarily mean that these children consistently watch TV and use computers alone. Whether or not children watch television by themselves and/or with siblings, or with their parents in the living room is determined by a number of factors, including the time of day, whether it is a weekday or weekend, differences in children's and parents' viewing preferences, family practices and routines, and the age of the child (Walters and Zwaga, 2001).

Livingstone (2002) reports that television is still primarily a social activity. Despite the increasing number of TVs per household, watching television is the activity that families report they are most likely to do together. New Zealand research suggests that 40% of children watch TV in an adult's presence 'most of the time' and just over half of parents report that they are present 'some of the time' (Walters and Zwaga, 2001). Children were most likely to watch with siblings or mothers. A large European study (Pasquier, 2001) found that more than three-quarters of children (aged ten and over) watched TV with others more than half of the time. However, research also suggests that children would often actually prefer to watch television by themselves or with friends rather than with family, and similarly parents also value the opportunity to watch television alone (Livingstone, 2002).

Differences in research design – particularly with respect to how questions are presented in surveys – may lead to quite different pictures of family viewing habits. Questionnaires often ask parents whether they are 'in the room' while their children watch television, but this does not indicate how often parents actively watch TV with the children, or the extent to which family members interact with one another while they are in the same room with a television. The reporting of some of these statistics may also be quite misleading. For instance, one large-scale American survey reported that 90% of parents sat with their child while they watched TV 'almost always' or 'once in a while', from which it was concluded that rates of active participation in children's television watching were high (Stanger, 1998). Combining these two very different viewing habits into a single category obscures the frequency with which parents are actually involved with their children's television viewing. Many survey studies also fail to break this information down into different age groups – something that is important given the change in viewing habits with age, in that children increasingly prefer (and manage) to watch alone as they get older.

A key determiner of whether families watch television together (aside from the availability of a second or third TV in the house) is whether or not family members share similar viewing preferences. Children are more likely to watch television in their bedrooms if parents are in control of which programmes are watched in the living room, and enjoy different shows. Parents' dislike of some programmes preferred by young people – and vice-versa – is one of the most common reasons for children going to watch television in their bedroom (Walters and Zwaga, 2001). In some cases, children may secretly watch shows in their bedroom that they are not supposed to watch.

Daily family routine and structure offer a further contribution to patterns in solitary or family media use. For instance, many New Zealand children watch television between 3pm and 5.30pm and view this as a 'winding-down' period after the school day, and television also occupies children while their parents may still be working or otherwise occupied (Lealand and Zanker, forthcoming; Walters and Zwaga, 2001). Television and DVDs offer relatively safe activities that keep children entertained and occupied, and as such they can offer valuable moments in which the parent can attend to household chores, or get a much-needed break from the activity of parenting. A Kaiser Family Foundation study (Rideout and Hamel, 2006) ran focus groups with parents of children aged six months to six years, and found that parents say they often avoid watching

television with their children as this is a time when they are able to get things done around the house. Parents may also select specific TV programmes or DVDs because they are long enough to give them the opportunity to complete their tasks. Similarly, TV was often used by parents in order to provide them with much needed 'me time', to unwind and relax. Television watching was understood to offer a safe way for children to spend their time, and avoid causing more trouble or mess around the house.

The period between 6pm and 8.30pm is often a time for family viewing, often both during and after dinner. In New Zealand, the 6-7pm time slot is occupied by the news on two channels. Lealand and Zanker (forthcoming) found that 21% of around 400 10-11 year olds surveyed watched the news 'all the time', and a further 65% watched 'sometimes'. Figures for international studies vary, but the percentage of children who watch the news can be surprisingly high – in the Netherlands, 87% of 9-12 year olds reported watching the adult news, as did just over half of 7-8 year olds (van der Molen, Valkenburg, and Peeters, 2002). Even higher rates were reported for watching children's news programmes. In some families, children watch television in their rooms while parents watch the news, or in other households, families may be required to eat together which means these children watch the news with their parents regardless of their preferences (Walters and Zwaga, 2001).

In addition to television being incorporated into family routine and ritual, family rituals may also be organised with respect to television watching – for instance, dinner may be timed so that it is eaten while a favourite family show is on (Gauntlett and Hill, 1999; Walters and Zwaga, 2001). Similarly, children's bedtimes may be organised in relation to the end of their daily TV viewing. Walters and Zwaga (2001) found that over half of the New Zealand children surveyed report 'no gap' or 'half an hour' between the time that they stopped viewing TV and the time they went to bed. This might suggest that the end of a television show may often be serving as the cue to get ready for bed – it would be interesting to explore this further.

Soaps or serial dramas may be especially influential on ritualistic television viewing among family members. Research with viewers of telenovelas and soaps has demonstrated the extent to which the regularity of these shows shapes family behaviour and routine – daily viewing is a ritual and collectively done, often with the programmes serving as a kind of 'bedtime story' (Gotz, 2004; Souza, 2004). Watching soaps with family forms part of the media socialisation practices in the home. As discussed later on, soaps and serial dramas have an extended relevance outside of the family home, and often play an important role in children's interactions with peers as well, particularly as they get older. Beginning in adolescence, girls increasingly prefer to watch soaps in their bedroom alone and value the sense of 'me time' that the ritualistic nightly viewing offers (Gotz, 2004).

Just as family structure and demographic status have an influence on where media is used in the home, these factors may also be associated with how, when and why media is used in the home. In a study on low-income families, around a third of mothers reported watching child-oriented television with their children on a daily basis (Tubbs, Roy and Burton, 2005). Television was seen as 'family time', and served as an accessible and affordable form of leisure which offered opportunities for conversation and socialisation. More research is needed to determine how family structure and media use might be related in terms of the everyday practices of using media in the home, and as part of the dynamics and interactions between family members. Couples report that they value the chance to watch television after their children are asleep, and value the time they get alone with their partner (Gauntlett and Hill, 1999; Walters and Zwaga, 2001). As the 2005 study by Tubbs et al might suggest, for single parents watching with children might be more highly valued. Different family compositions may also play a part in how decisions are made as to what to watch, and may be related to the 'balance of power' within a household.

In many respects, TV and other media may facilitate interaction and talk between family members. In a published observational study, MacKeogh (2001) offers the full set of notes for three families' viewing behaviour, and these demonstrate the extent to which family members can talk during the screening of soaps and serial dramas, as well as during advertisements. In these families, television was not viewed in silence, but with

ongoing talk about the characters, their dress and hairstyle, their decisions, past and future storylines, and so on. One does not have to even like these shows to take part in watching and discussing them. Family members who watch a programme because someone else in the home watches it can display quite extensive knowledge of plots and characters. MacKeogh reports a case where an older brother who didn't like *Home and Away* was nevertheless a useful source of information about the show, and held a variety of opinions and knowledge about many aspects of it. Similarly, Lemish (1998) found that girls who did not like a wrestling show were nevertheless highly knowledgeable and regular viewers as a result of the interest of a sibling. The ritual of 'watching together' and talking about television can be at least as entertaining as the show itself.

MacKeogh (2001) also noted that parents (and grandparents) asserted their presence in the living room and questioned the content of the television being watched by their children – in many ways 'asserting ignorance'. The children oriented to these questions as indicative of a lack of knowledge or insight on the parents' part, and used the opportunity to display their own competence and expertise with respect to television. In another observational study, Pigeron (2006) showed how children demonstrated their competence and independence as media users, and offers an example of an eight-year-old child establishing her experience and knowledge of the computer as greater than that of her mother. In many ways, the socialisation experiences that media use offers also benefit parents.

In a New Zealand study, Lealand (1998) observed 78 preschool children watching television in their own homes over a period of 14 months.¹ The study found that preschoolers rarely gave their full attention to the television while watching a programme and engaged in a number of other activities such as eating, drawing or playing with toys and siblings, but the activity they were most likely to do while watching TV was talk – including having conversations with parents/caregivers, siblings, friends, and the researchers, as well as monologues and interaction with pets, toys, and television presenters or characters. Clearly then, for this age group at least, children do not passively and silently absorb TV but use it actively and in combination with other social activity. Lealand suggested that television watching in these families provided opportunities for both learning and pleasure, for talking about shared experiences, and developing understanding about the world. As children's engagement with both media and other people changes as they grow older, it would be useful to also observe children in other age groups to see how the learning, sharing, and understanding that go on with media use also develop.

Pigeron (2006) illustrates how a micro-level approach to studies of media in the home can reveal the ways in which media features in the routines and interactions within the family as a social practice. Video cameras were placed throughout homes and recorded the everyday activity of families. Pigeron's paper presents interactions between the mother and children in the bedroom watching a cartoon, in the lounge watching a film, and between the father and son in the garage watching a sports game. In addition to the 'cuddling' time that shared television watching offered, the analysis also shows how the talk and interaction that go on during media use offer socialisation into, and through, family values and morality; practical and technical competence; educational and cultural awareness and competence; and family 'togetherness' and 'connectedness'. Fine-grained analysis of talk between family members about media technology and content demonstrated how both children and parents asked and answered questions, displayed their understanding and knowledge, and negotiated epistemic and moral matters.

The interaction that takes place when watching TV with families can be beneficial for children's cognitive and social skills. As part of a broader study on memory development, Low and Durkin (2001) invited a group of mothers to watch an edited television police drama with their 6 year old children and observed their spontaneous talk styles. They found that some mothers spontaneously made the viewing experience a highly interactive

¹ Although the age group of the children involved falls outside of the scope of this review, the study is worth mentioning because of its unique methodology and the possibility of some generalisations being taken from the findings of the study.

one whereby they asked their children to comment on character, plot, and how aspects of the content depicted may reflect their own real-life experiences. These mothers (whom the authors termed as displaying a high-elaborative conversational style) also expanded on their children's own questions and answers about the content watched. In contrast, other mothers were found to adopt a less elaborative talk style and often asked and repeated yes/no types of questions in relation to the ongoing viewing experience. When it came to children independently retelling the television story to an unfamiliar experimenter, it was found that those who had experienced a discourse-rich viewing event retold and remembered a more cohesive and coherent plot.

Educational and social learning is also integrated into the programmes themselves – which in turn establishes a model for how parents should help use television to educate their children. Briggs (2006) discusses how the narrator in *Teletubbies* takes on a pedagogical role during the programme by inviting children to interact with it, and offering an enriching educational experience. It is suggested that the narrator serves in some ways as an 'ideal parent' – the 'benevolent' ever-present voice asking the right questions at the right moments. Briggs also recorded his own child's television viewing and showed how pedagogical parenting discourses were incorporated into the way he and his wife talked to their child during screenings of *Teletubbies*. This was demonstrated by the parents taking a role as a second narrator, calling for the child to attend to something on screen, and by asking further questions. Interaction between parents and child was done as both 'play' and 'education', and it is argued that this offered a 'scaffolding' for the child to explore and extend their social and cognitive competencies. Parental involvement in children's viewing may also enhance children's use of media for creative, imaginative, and play activity. The extent to which media content is actively recreated and embellished upon in children's play may be influenced by how parents themselves guide children's behaviours. Marsh's (2005) home observations showed that educational props such as toys and dress-up clothes which were provided by caregivers helped children incorporate media content into their play, effectively enriching the variety of themes found in the play.

For all the functions and benefits that media use may serve in the home, use of televisions and computers and so on is typically subject to regulation and monitoring by parents. These rules and regulations are applied to both family co-viewing, and to children's media use 'alone', or in exclusively peer-led environments (see 4.2). The way these different environments are managed in everyday life is discussed in the following section.

3.1.3 Regulating and monitoring media use

The title of one popular book about children and television, *'Mommy I'm scared': How movies and TV frighten children and what we can do to protect them* (Cantor, 1998), demonstrates one side of a debate about the kinds of dangers in children's media use, and the importance of protecting children by limiting and monitoring their use as part of a 'good parenting' strategy. Cantor is the author of many popular books on the negative effects of television watching, which have their counterparts in some academic work. As well as in the popular press, one also finds academic and scientific reports of the multitude of dangers of television watching. One recent report claimed that television watching caused an array of serious health conditions including but not limited to cancer, autism, obesity, and premature puberty (Sigman, 2007), and recommended that young children watch no television at all. Certain publications have a particular focus on 'effects-based' research, which tends to paint a negative portrayal of media use, depicting television as a harmful and destructive force for children, and for childhood as we know it.

Of course, one also finds publications that offer messages counter to these, and which instead may herald the value of media in children's lives. Sternheimer (2003) argued that fear is used to manipulate parents' and children's understanding and use of media, and has led to a state of moral panic as to what media do to children. At the heart of these debates, and their interest to the public audience, is that regulating and monitoring children's access to and use of media is essentially a parenting matter. Within these accounts of what television, computer, music video, game, and mobile phone use do to children, are messages as to what constitutes 'good parenting'. Such messages

incorporate the idea that the 'good parent' should ensure that their child is entertained, educated and media-literate, and should also take care not to expose their child to something that may cause premature puberty, cancer, autism, or obesity. These concerns may reveal themselves in the way that media use – particularly of television and the internet – is monitored, and bounded by rules in the family home. Even children display an understanding that 'too much TV' and 'violent TV' is 'bad' (though not for them) (Tobin, 2000).

While parents report worrying about the time their children spend with media, as well as the content they are exposed to, these concerns are often secondary to other issues. A large European study found that concerns about children's futures and possible drug use, employment, crime, and education were considered more relevant and pressing to most parents than concerns about media (Livingstone, 2007). It is suggested that media concerns are often closely related to a parent's more general concern about their child's values. As children get older, they are less likely to have parental rules imposed on them regarding their media use, and are also more reluctant to comply with any rules that are put in place (Australian Broadcasting Authority, 2000). The period of greatest concern is when children are between the ages of ten and fourteen – prior to this, children are more closely supervised, and after this age young people are deemed mature and competent enough to use media safely and wisely (Hanley, 2002). It is also considered undesirable to shelter children too much from the outside world, and many parents report using media to help prepare children for the realities of the world (OFCOM, 2005).

Children often rate themselves as highly competent media users (Livingstone and Bovill, 2001), which may be constructed as part of an identity as a 'media-savvy' child. In focus groups and interviews, children often assert their own maturity and independence with respect to their media use – possible dangers are recognised, but are considered to apply only to other, younger, children (Tobin, 2000; Walters and Zwaga, 2001). However, children may overestimate their maturity and might feel reassured by parents setting boundaries (Hanley, 2002).

While parents prefer to trust their children rather than impose rules, particularly as they get older (Hanley, 2002), more often than not media use is regulated and monitored in the home (Livingstone, 2007). Parental mediation of children's media use can take two forms – through the imposition of rules, and through active co-viewing of media coupled with discussions about media with children (Livingstone, 2005). Survey-based research indicates the kinds of strategies and the effectiveness of them to regulate children's media use. Qualitative studies offer detailed pictures of how these strategies are used and responded to by both parents and children, as well as offering some indication of the rationale behind the implementation of these rules.

In European countries, television is the medium most likely to be subject to rules set by parents, followed by telephone and computer use (Livingstone and Bovill, 2001). An American survey found that parents are more concerned with what their children watch on television rather than how much they use it – 67% of parents reported that they worry most about TV content, whereas only 21% were most concerned about the time their child spent watching TV (Stanger, 1998). New Zealand research (Walters and Zwaga, 2001) suggests that parents consider some programmes to be unsuitable because they are scary, violent, contain bad language or sexual content, present children with 'bad attitudes' (eg Bart Simpson), offer a false reality (in drama series for example), or are deemed to contain adult themes (soaps such as *Shortland Street*).

Another issue is when children watch TV – the time of day that a child can watch television is often subject to regulation. For instance, children may not be allowed to watch TV in the morning as it might distract them from getting ready for school; or not until after they have finished homework or chores (Walters and Zwaga, 2001). As discussed above, viewing habits are often regulated by way of the everyday routines of families.

The level of a parent's media knowledge and literacy can influence the way in which their children use and respond to television and other technology. However, we might note that 'knowledge' is generally value-laden and these ideological differences also make their way into research. In one study examining the implications of parental knowledge about

media effects, Gentile and Walsh (2002) gave low scores to parents who did not claim that children who watched a lot of violent TV were more aggressive – although as others have pointed out, this is not a straightforward correlation (and even the definition of ‘aggression’ is problematic) and its status as a measure of ‘knowledge’ is perhaps debatable.

Livingstone (2001, 2007) points out that the use of rules regarding media use is tied strongly to particular values about what is considered to be ‘good’ for children. Regulation is also associated with differences in parenting styles, family structure and dynamics, and communication styles (Kotler, Wright and Huston, 2001). In addition, the degree of regulation about media use is shaped by practical issues, such as the extent to which parents are able to supervise their children – for instance, children may be left to watch TV while a parent does housework or paid work (Kotler, Wright and Huston, 2001; Rideout and Hamel, 2006; Walters and Zwaga, 2001). Rules about media use and breaches of these can be a cause of conflict in the home. However, there is generally more conflict around homework, chores, and going to bed than there is about television watching or computer use (Livingstone, 2007).

Family discussions about television or the media have been described as a kind of informal regulation of children’s media use. Buckingham and Bragg’s (2004) interviews with parents about sexually explicit material in media showed that many use television programmes as a kind of platform for more in-depth discussion of the issues raised in some programmes. However, children can find parent’s initiation of discussions about morals, sex and sexuality on television to be embarrassing, and claim that parents underestimate their knowledge, maturity and judgement in dealing with such material (Buckingham and Bragg, 2004).

A fairly consistent finding in terms of whether there are reported to be formal rules about watching TV or using other media in the home, is that there is a notable discrepancy between children and parents’ perceptions about whether such rules are in place or implemented. The percentage of parents who claim there are household rules is always higher than the percentage of children who say there are rules in their home (eg Livingstone, 2007; Pasquier, 2001; Walters and Zwaga, 2001). In addition to an overall discrepancy, this difference is also found with respect to regulation of particular activities; for instance, parents claim that children are forbidden from buying online or using chat rooms more often than children claim that such rules exist (Livingstone and Bober, 2004). One survey found that over 80% of parents claim that they ask their child what they do online; however, only a quarter of these children reported that their parents actually did this (Livingstone and Bober, 2004). Social desirability effects may account for this, with parents wanting to be seen as being socially responsible, ‘good parents’, and children wanting to assert their independence and maturity. Children may also be more aware of instances where these ‘rules’ were perhaps not implemented or upheld, or where they ‘got away’ with something supposedly regulated.

It is possible that in some instances children are unaware of the rules that parents perceive themselves to be implementing – for example, children may not be allowed to watch AO programmes but this rule may be upheld by setting the ‘watershed’ time as bedtime. But just as children may not be aware of the rules imposed on them by their parents, it seems that parents are often unaware of the ways in which children break these rules, or avoid the monitoring strategies put in place by parents. Children report deleting emails and browsing histories in order to cover up their online activity (Livingstone and Bovill, 2001; Livingstone, 2007; Ward, 2003). Children also report illicit television use, for instance, watching TV in the bedroom with headphones on after ‘bedtime’, watching ‘banned’ programmes at a friend’s house, or looking at ‘adult’ websites with an older relative.

3.1.4 Regulating and monitoring internet use

While watching television is often done with other family members, computers are more often used on an individual basis. Parental involvement with children's internet use is more likely to serve a monitoring and regulatory purpose than an interactive one (see Livingstone and Bober, 2004).

Internet use is a common source of anxiety for parents, primarily with respect to the kind of content children might view. One study found that over half of parents surveyed were concerned that the internet made it much more likely that their children would be exposed to pornography (Livingstone and Bober, 2004). Other fears relate to the internet's communicative functions; it is possible to interact with anyone in the world in chat rooms and through messaging programmes, and impossible to ever really know if a person is who they say they are, and what their motives and intents really are – something which gives the term 'stranger danger' a whole new meaning. Green and Hannon (2007) describe these 'moral panics' about computer and internet use as 'myths and misconceptions', but also point out that 'digital faith' in the benefits of new technology, such as notions that 'all gaming is good' or that 'all children are cyberkids', is also based on myths and misconceptions.

Regulation of internet use in the home is managed in a number of ways, both formal and informal. Formal means may include the use of filtering software, which can be used to block particular sites, and to filter information and emails. However, children may still be able to communicate via chat or video messaging, or send material through file-sharing programmes. The NCH study (2006) found that while around two-thirds of parents attempted to block certain content usages, nearly half of the children claimed to know how to get around these. There are a number of informal strategies used to regulate children's internet use; for instance, 30% of British parents report that they regulate their child's internet use by sitting with them and observing what they do (Livingstone and Bober, 2004), or they prohibit particular websites or internet activities such as chat rooms. Computers may also be positioned in the house so as to best allow for parents to see what their children are doing on them (Hanley, 2002; Livingstone and Bovill, 2001; Ward, 2003).

Livingstone and Bober (2004) suggest that children may find parents' regulation of their internet use overbearing, and that it may restrict children's ability to explore the potential that the internet offers. As much of children's internet activity is communicative, through chatting, emailing, and 'social networking', parental observation may in many ways be experienced as a kind of eavesdropping. In the following section we discuss in more detail how children navigate the interactive and social aspects of the internet, and suggest that the independence and peer relationships that these aspects offer children are both valued by, and valuable for, children.

New technology is much more reliant on knowledge and expertise than the television set – in many respects use and regulation of use of computers and other new media are constrained by parents' and children's understanding of how to use them. When asked who knows the most about computers in the house, both parents and children report the father about 30% of the time, closely followed by the child, with mothers nominated only 12-16% of the time. Gender also plays a role – males are considered to know more than female family members (Livingstone, 2002). In a large representative sample in European countries, 92% of children said they felt very comfortable or fairly comfortable using a computer, compared to just 69% of their parents (Livingstone, 2007). Many parents profess that their understanding of the internet – beyond using it to find information – is relatively lacking in relation to that of their children, and this is one of the key concerns that parents have about their children's internet use (OFCOM, 2005). Children's competence with respect to computers and the internet these days has led to what has been termed the 'digital divide' in terms of knowledge rather than access (Facer et al, 2003). A recent survey conducted in the United Kingdom (NCH, 2006) revealed the extent of the knowledge divide between parents and their children. For instance, one-third of children reported having a blog, yet two-thirds of parents did not know what a blog was, and only 1% thought that their child had one; and while around 80% of the children used instant messaging (IM) programmes, nearly a third of parents did not understand what instant messaging meant.

Because of statistics such as these, as well as parents' reported concerns about their lack of skills in using new technology, it has been suggested that it is parents rather than children who should be the targets of media literacy programmes. One vital aspect of computer literacy is that one needs to constantly 'upgrade' one's knowledge and competencies as the technology continues to evolve – ie someone who took a computer course ten years ago would struggle on a computer today. One organisation in New Zealand that is actively involved with increasing media literacy among parents is NetSafe (netsafe.co.nz). Mediascape (mediascape.co.nz) also offers a range of resources for parents, students, and researchers. There is an absence of research on the efficacy of media literacy programmes for parents and families in New Zealand, and whether and how the information provided is used in managing internet use in the home. It would be interesting to examine which sources parents do actually use for information about computers and the internet, especially given the regular appearance of stories related to technology in the media.

3.1.5 Summary: media and the home environment

Despite the increased mobility offered by recent technological advances, the home is still the place where most media is used and consumed. Although the rise of the 'bedroom culture' has seen an increase in the incidence of private use, 'watching alone' is something that is still done in the context of the family – albeit by virtue of being 'not together'.

Statistical research has shown that the role of media in the home is dependent on a multitude of factors, and suggests that there is not a 'universal' set of patterns in terms of how families use media. Family media habits vary in accordance with family composition, financial resources, the management of practical aspects of daily life (ie work, parenting, housework), the organisation of space and place in the home, and parental morals, values and ideologies. Qualitative research, including interviews and observations, offers a picture of how these various factors may come together to shape the daily routines and practices within individual homes.

3.2 Media and peers

It has been noted that while computers, phones, gaming machines, iPods, and other new media are now numerous in many households, children often use these newer media technologies apart from the family, and increasingly to interact and engage with their peers. The new media landscape offers interactive spaces where young people can take part in a social context distinct from their immediate home environment, without even having to leave their bedroom.

As with almost every other aspect of children's media use, social and peer-related consequences of media have been variously described as 'good' or 'bad'. Benefits include the high rate of safe interaction that media can provide for, which is deemed valuable for a child's sense of self and 'belongingness'. Children themselves often assess the interactive functions of media as a positive and important part of their daily lives and social worlds. However, common concerns relate to the potential for young people to become isolated by too much TV or computer use, and the risk of establishing inappropriate or unwelcome relationships with strangers. One complaint about children's media use is that it is done at the expense of more socially valuable activities. What is generally overlooked is the extent to which using media is often a social experience – one shared with family and friends. Media also has social implications beyond the moment at which it is used – for instance, a child's use of media at home may be consequential for their interactions at school.

Research on how the media is related to children's peer interaction has been dominated by studies of how they use new technology – and the internet in particular. The examination of the 'virtual social world' children have so rapidly created on the internet has, in many ways, overshadowed research on the still prevalent place that both old and new media have in real time, everyday interactions. More traditional media formats continue to play a part in children's peer interactions, both in and outside of the home,

with phone landlines, collective magazine reading, and media-themed pretend play, for example, still forming significant parts of children's social worlds. In this section we discuss literature that has examined the ways in which media facilitates, and is facilitated by, social interaction between children in their everyday lives. We offer a sketch of the social and peer contexts that media establish, and discuss how media use might be understood to be enabling and facilitating social learning and interaction.

3.2.1 Media in children's talk, play and cultures

Children and young people's use of media is a highly social activity. Using the computer, watching television and DVDs, listening to music, reading magazines, and playing games are activities that are regularly done with siblings and friends. Among a number of older children in particular, staying in contact with friends online or via mobile phone, and interacting with the virtual world via websites, blogs, and social networking sites may be a daily activity (Lenhart and Madden, 2007). The social aspect of media is something valued by children, and also something they wish they had more opportunity to do – one study found that many children said they would like to watch television with friends more often (Livingstone, 2002).

Use of media also has social implications beyond the moment at which TV is watched. For instance, media content is incorporated into the everyday practices and culture of children, in and through their talk and play with peers. Among younger children, television and other media formats are often used as the basis for games and play in the playground (Suess et al, 1998). Media merchandise and 'dress-up' clothes are ways in which television programmes and computer games are brought into children's pretend play, but aside from the use of media-based props in children's play, characters, dialogue and plots from television and movies form part of a common stock of resources for producing play activities (Suess et al, 1998). Long-term observational case studies have shown the varied and subtle ways in which the influence of media experiences can be observed in children's play (eg Browne, 1999; Robinson and Turnbull, 2005; Smith, 2005).

Observational studies, including New Zealand work, have noted that young children's enjoyment of, and identification with, their favourite television programmes motivate the incorporation of media content into their play and peer discussions (eg Brennan, 2002; Browne, 1999). Experimental research has also suggested that television programmes can stimulate imaginative, or pretend, play. For example, Singer and Singer (1998) compared the play interactions of two groups of children, where one group had watched *Barney and Friends* every day for ten days, and found that the children who had watched *Barney* showed more imaginative play.

For older children, television programmes and computer games are popular topics of conversation during school lunchtimes (Suess et al, 1998). Gotz's (2004) interviews with young viewers of daily soaps and *Big Brother* found that while younger children primarily discussed these shows with their family, those over the age of about ten talked about them mostly with their friends, discussing the latest storylines, or speculating on future developments in the show. Knowledge about popular shows served as an important cultural resource, and was implicated in the way that children organised their social interactions and relationships with other children. Gotz suggested that 'friendships are begun, cultivated and defined with the help of soap connections' (p. 69), and that soaps help establish group identity and belongingness, especially between fans.

In addition to facilitating interaction and conversation between children, the relevance that media has for interaction in the playground may also influence how a child uses media at home. It becomes important to watch particular programmes or listen to certain radio stations in order to be able to take part in conversations about them at school, and to establish and demonstrate a shared cultural identity (Baker, 2001, 2004; Minks, 1999). For instance, viewers of the reality TV programme *Big Brother* talk about the importance of regular viewing and keeping up with the show in order to join in with conversations about it at school (Gotz, 2004). The relevance of this is suggested by a Chilean 'tween' who claimed with respect to a reality show, 'Everybody is talking about it, you can't be left out' (Souza, 2004, p. 174). Similarly, Lemish (1998) found that boys reported watching

WWF Wrestling on TV in order to be 'in' and to avoid being known as a 'sissy' or other derogative term. It was also important to learn self-defence tactics if attacked in a mock wrestling match at school.

Souza (2004) noted that children report using the language of TV – terms and phrases of talk used in reality shows, for example – in their own interactions. This demonstrates how children and young people use media as a resource for establishing peer relationships and cultures and for building their social worlds. Similarly, some media use may be drawn on as a kind of social capital. Children who have seen 'adult's programmes' late at night, or who have gone to see an M or R16-rated movie may talk about this proudly at school. Lealand and Zanker's (forthcoming) interviews with New Zealand children revealed that children knew a great deal about new technology, and mobile phones in particular. Their discussions about the best deals, the various networks, and the latest phone designs suggested not only that they were knowledgeable about this technology, but that this knowledge was highly valued. It should be noted that researchers themselves often identify children who 'stand-out' for their media knowledge and expertise (Lealand and Zanker, forthcoming; Green and Hannon, 2007).

While there are numerous accounts of children talking about media in the playground, there have been few studies that demonstrate what children actually say to each other in these instances of media talk. Researchers generally ask children to simply report what they say to each other, and then present isolated quotations as exemplars of some general aspect of how media is relevant for children's interaction.

However, even within a focus group situation, there is a great deal of talk and interaction going on between children – something which the isolated quotations tend to obscure. Tobin's (2000) analysis of focus groups with ten and eleven year olds offers an exception by presenting extended sequences of conversation between the participants in focus groups. The analysis considers not only the information the children offer to the researcher, but also how the children talk with each other in these groups. Tobin demonstrates how gender and social alliances were brought into the discussions about the media, and were used in establishing and challenging a sense of identity and social belonging.

Minks' (1999) observations of ten and eleven year olds' music use and conversations about music, demonstrated the role that radio stations and music genres have in establishing social groups and affiliations. In this sense, the choice of radio station was central to the children's identities. Those few children who claimed to not listen to popular music were those who demonstrated strong family and cultural ties – they were typically interested in the music traditional to their family and culture, and considered listening to music to be a family activity.

Another qualitative study of the place of music in the lives of pre-teen girls similarly points to the relationship between music and identity (Baker, 2001). Nine girls were given tape recorders with which they were free to do as they pleased. All of the girls chose to produce 'mega-mix' tapes by recording songs from a popular Australian radio station, music videos on television, and from one another's tapes. Baker (2001) showed how the songs selected and the girls' talk about this music demonstrated their establishment of a shared cultural identity. The girls also revealed their observation of music videos in the choreographed dances they performed to the music they played. Some participants were also keen to include music that was unknown by their friends, and in this way establish a point of difference in both their tastes and their personal identity.

While tape recorders are rapidly becoming obsolete with the development of music-sharing technology (including podcasts, Ipods, and mobile phones with MP3/MP4 players), Baker's (2001) research is revealing for the ways in which children use music as social and cultural capital. It might be suggested that new technology has heightened the potential for children and young people to use music as a resource in their social worlds, and to establish the place of music in producing their identities. Following the rapid increase in communication and electronic technology, there is a growing body of research which explores the links between new media and identity.

3.2.2 New media and peer interaction

Research has examined a variety of aspects of children's engagement with computers, the internet, and mobile phones, including their ability to access and understand such equipment, the kinds of activities that are done with new media, and how these activities are related to everyday life. Other approaches have included consideration of the relationship between media use, culture, and identity. One particular focus of this research has involved examining how children and young people use new media to communicate with one another and to establish social networks.

It should be noted that the vast majority of this research has looked at how teenagers use the internet. While there is an increasing interest in the computer use of 'tweens', this probably under-represents the rapid growth of internet users in this age group, and among even younger users. A further caveat of the research reviewed here is that studies are inevitably dated given the speed with which the internet and the use of it is developing. Given the length of the review process in the publication of academic research (typically at least a year), research in this area has the potential to date quickly. Survey-based research, in particular, serves primarily as a 'snapshot' and needs regular updating to be useful.

Using the computer is rarely understood as being a shared activity, but clearly young people use the internet to share information and interests, likes and dislikes, thoughts and friendships. One further aspect of the social aspect of new media is that children often use it in the company of a friend or sibling. While they may appear to attend primarily to the screen rather than each other, they are at the same time sharing the experience of using the computer, and collaborating in directing the course of activity with the computer.

Communicating with peers (ie sending emails, chatting and instant messaging) is one of the main activities that children do while using the internet, particularly girls (Foehr, 2006). Interestingly, a survey conducted in 2005 found that New Zealand children are much more likely to use the internet for the purposes of homework than for 'virtual interaction' (Reddington, 2005). A Netherlands study in 1999 similarly found that adolescents were likely to use the internet for homework and entertainment. However, a comparable study, seven years later in 2006 when access to broadband had increased, found that Dutch adolescents are now using the internet primarily for communication (Valkenburg and Soeters, 2001; Valkenburg and Peter, in press). As noted, in the year that the most recent New Zealand survey was conducted (2005), access to broadband in children's homes was considerably lower than in many countries, whereas the Netherlands has very high rates of access (OECD, 2005). This same survey also noted that having a broadband connection was associated with increased use of the internet – and use of the internet for a wider range of activities. This demonstrates the importance of continuing to measure rates of access to new media, in addition to researching how young people use this media.

Online communication takes a number of forms and includes: e-mail, instant messaging ('real-time' textual and increasingly visual communication programmes); chat rooms (again both textual and visual and involving real-time based interaction with a group of people); discussion boards (where messages are posted); 'social networking' sites (such as myspace.com and bebo.com where members produce a profile about themselves and collect friends); blogs (like an online journal available to anyone); and engagement with sites serving special interests, eg for 'adventure game enthusiasts' or 'horse lovers', or 'fan-sites' for television programmes and celebrities.

While communication and interaction have begun to dominate children's internet activity, it is often overlooked that knowledge is becoming an increasingly social product. Rather than simply looking up information in an encyclopaedic fashion, people can actively ask questions by posting on a website and draw from (and even discuss or debate) the knowledge and experiences of others in the world. Distinctions between 'social' and 'educational' uses of the internet might perhaps be overstated given how much the two are intertwined in practice.

3.3 Cyber-communication

There are interactional skills that are unique to the context of the internet – it is not a simple matter of transferring one's cognitive or social skills from the domain of real life over to the virtual world. The virtual communities found on the internet come with a distinct set of practices, customs, and languages that the user must know in order to understand and participate in interaction. In this sense, the internet offers a level playing field for all users – one enters a community as a 'newbie' and gradually learns how to take part in this virtual social world (see Benwell and Stokoe, 2007). Websites that are frequented or produced largely by young people appear to have a unique set of rules for talking and interacting with one another. A visitor to such a site is confronted with unfamiliar words and spelling, a hip-hop style of attitude and talk, a mix of upper and lower case letters, and an overwhelming array of media clips, skins, widgets, and comments and pictures from friends. It simply wouldn't do to take part in this community and write 'normally'.

While parents can remind children that a television programme is 'pretend', there is not much they can do to help them establish a social network on the internet. Computer use requires a wide range of competencies and skills, many of which can only be learnt by doing. The culture of a site such as bebo.com is 'kid-based', and children, in many ways, have a head start over their parents who are unaware of the talk, the media watched and listened to, and the messages sent, that are fundamental to the social-cultural context that such sites express.

Many children report learning the necessary new media skills from other children. Some applied research studies have examined the ways that children interact with each other on computers in specially set up computer labs for children to use after school. For example, one project run by the Centre for the Study of Children, Youth and the Media ('Shared Spaces') involved setting up a space for young people to use computers after school, and researchers then examined the way the children interacted with one another and with other computer users, both in the room and across the world (Buckingham, Sefton-Green, and Willett, 2003). The analyses showed how older or more experienced users socialised other children into the rules, practices, and meanings associated with online interaction. In instructing and guiding a new user through an interactive chat room, an initiate was taught how to maintain anonymity and 'stay safe', how to start conversations with people, how to argue or flirt, how to play with identity, how to follow social 'etiquette' and rules, and how to speak the language of the site (Sefton-Green, 2003). Technical competencies, then, are in many respects less relevant to children's productive, creative, and interactive use and mastery of the internet, than socially-grounded understanding and skills appear to be.

Interactions via new media require proficiency in particular uses of text and language. To some extent many of these interactional rules and features are unique to children. It is knowledge in a sense 'owned by children' (Danby and Baker, 1998), and few adults would command knowledge of how to read, write and understand in the ways that the sites and programmes used by young people seem to require. The specific forms of communication on sites such as bebo.com (a mixture of text-based spelling, a hip-hop influenced lexicon, and a combination of lower and upper case) are an example of a language invented and mastered by children and young people, and perhaps even restricted to use among children. While it may be considered nonsensical and illiterate by adults, this form of communication might in many ways be considered a skill rather than a deficit. Children certainly enjoy displaying and proclaiming their proficiency with media equipment.

In the next section we briefly describe how new technology allows for children and young people to 'send messages' to one another, and how this messaging activity fits into children's social worlds.

3.4 Sending messages

New technology means that friends are never far away – something that may be especially important as the neighbourhood streets and parks are no longer considered

safe for children to spend time in alone. Given the right piece of equipment, any number of friends might be available to talk to at nearly any time of the day. The main forms of messaging used by young people are texting, emailing, instant messaging, and chat rooms. Emailing continues to be one of the main vehicles for interaction on the internet. Around 70% of children check or write email on a daily basis, mostly to people they know and see in 'real life'. Instant messaging (IM) – as the name suggests – involves sending short 'real-time' text messages online to another person. When young people and teenagers first turn on the computer, a messaging programme is often one of the first things they check. Here they can see at a glance which of their friends is online, and potentially available to talk to. 'IM-ing' is often part of children's multitasking – for instance, 'chatting' with a friend to break the boredom or frustration of doing homework on the computer.

Most of the time, children and young people interact with people they already know, and report being cautious about interacting with people not known in 'real life' (Lenhart and Madden, 2007). In addition to strengthening existing friendships, online communication also offers the opportunity to establish new social connections, which may be particularly valuable for otherwise isolated or lonely children. One survey of Dutch children found that for those who interacted online with existing friends, online communication was positively related with the closeness of their friendships (Valkenburg and Peter, in press). The study also found that while socially anxious children interacted online less than those who were non-socially anxious, the socially anxious group particularly valued the opportunities for intimacy and self-disclosure offered by the internet. This illustrates the facilitative nature of the internet in that it encourages and allows for social interaction that strengthens social ties and makes new ones possible. It also serves as a reminder of the value of recognising the social skills that are necessary for online communication.

However, new media can also allow for less positive interactions, for instance, for what has been termed 'cyber-bullying'. Antisocial behaviour such as bullying is a key concern regarding the communicative functions of the internet and mobile phones, and has been implicated in some tragic cases in New Zealand. Phones, emails, IMs, and social networking sites allow children to send frequent messages to each other via a medium that a victim cannot easily avoid or hide from. Not only can a victim not escape abuse, but they may not even know from whom it is coming.

3.5 Making web content

One notable development in the internet over the past few years is that it is increasingly easy for users to create their own web content. In its early days, only 'computer experts' could make websites, but as the web grew, users could increasingly participate on these sites through posting messages or taking part in chat rooms. Those who wanted their own piece of virtual real estate paid well for it, and either had to be trained in html code or have someone else deal with the technicalities of putting things on the web. Today, creating one's own webpage complete with photos, videos, text, links, games and more, is easier than using Microsoft Word.

The creative aspect of the internet has been widely adopted by children and young people – an American survey found that more than half of teens online had created online content (Lenhart and Madden, 2005). On 'social networking' sites users establish a profile about themselves and their interests with the aim of collecting 'friends' and linking to each other's pages (see Lenhart and Madden, 2007). Another creative aspect is blogging, where users have a space to write a journal which can be read by anyone on the internet, or it can be restricted to those one has made 'friends' with through the blogging site. Thus, these personal spaces are not only creative, but inherently social and interactive, inviting others to both read and respond to them.

3.6 TV on the internet

Increased access to broadband over the past few years has had huge implications for the ways in which the internet is used. One significant consequence of faster connections is the increased ease with which people can view videos and moving images, and

accordingly there has been a rapid increase in the amount of this kind of material on the internet. Most notable is youtube.com where anybody can post video footage for others to watch. Like the early days of blogging, where certain blogs were pulled into the spotlight and their authors became almost famous overnight, some videos posted on YouTube have launched people into stardom. On the other hand, YouTube has also been used for more sinister purposes with cases of young people filming physical assaults on others and then posting them on the site.

YouTube is also an endless source of material more typically found on television or DVDs – for example, music videos, television shows (including archival material), and documentaries. One can easily embed a video from another site into one's own.

Children's television programmes have long had websites and other media (especially CD-ROMs) associated with them. American children's television networks in particular (such as Nickelodeon and Fox Kids) have large sites full of games and activities for children. In New Zealand, the children's TV programmes *Sticky TV* and *What Now* have websites that are becoming increasingly interactive. Rather than just read information and look at images on these sites, young people can now 'chat' online and make comments in a community blog tied to the show.

Television features on the internet in terms of interaction and 'conversation' as much as it does on programme sound and images. The internet means that children can not only talk to their family and friends about television shows, but to hundreds, and potentially millions, of other fans all over the world. Fansites such as the *Shortland Street* one, streettalk.co.nz, offer recaps of each episode and forums where people can post messages, links and photos, and often do so in 'real time'. Given the nightly updating of events in the daily serial, the discussion is regular and frequently active and demonstrates how often members of the site are 'checking in' as a regular part of their daily activity. As a further example of television and new media interactivity, the televised *Idol* talent shows such as *New Zealand Idol*, both here and overseas, are dependent upon new media for building a fan base and securing an audience for the show. Viewers vote via texts on mobile phones, and are encouraged to visit the website to see extra footage, behind the scenes moments, and interviews – as well as to discuss these things with other fans.

3.7 Summary

Although children increasingly have a range of media equipment in their bedrooms, children and young people often use media in the company of others – with families in the lounge, siblings in a bedroom, or with friends on IM for instance. As much as media facilitates social interaction, social interaction can also facilitate media use.

The place that television and other media equipment have in a home depends on family structure and demographics, and a range of practical and moral issues; it is also influenced by how families organise their space and their time. The next chapter explores how children respond to the media they do access or are exposed to.

4.0 Children's Responses to Media

Vicki and somebody and me went into a chat room as a joke and it was really boring – there was dodgy stuff in there so we went straight back out. (Terri, 13; Nimmo, 2006)

Much of the early literature on children and media developed out of concerns about the 'bad' effects on children of watching television. These 'bad' effects ranged from educational impairment through to more moral concerns about children imitating socially undesirable and/or inappropriate behaviours such as aggression or sexual activity. New technologies, in the public mind if not in the research domain, have seen similar alarmist reactions, often fuelled by 'moral panic' and educational concerns (Green and Hannon, 2007). In more recent years, the changing emphasis in both psychological and social research on children as active processors of media has produced less of an alarmist perspective. Rather, we learn from this work that children can be discerning and critical of what they view, and that they don't simply emulate what they see on the television screen. In new media research, too, children are being depicted as innovative, multi-skilled, and self-regulating, as 13 year old Terri demonstrates in the quote above. In this section of the review we discuss the literature regarding how children respond to the media they access and use. We are defining response to include both how media is said to impact on children (effects research) and, from a different perspective, how media content is (actively) experienced by children. To examine these aspects of children and media we firstly review literature on perceptions of what is 'bad' for children to watch on television, and use sexual content as a particular illustration. We then consider the research that addresses the emotional impact of content on television, and use television news as an illustration.

4.1 What is 'bad for kids' to watch on TV?

Whether children watch certain programmes or not is a more complicated matter than what they like to see. As we discuss in this and the following subsection, children's viewing practices are tied up with a number of practical, social, and moral issues. The notion of children as discerning viewers comes to the fore when their responses to programmes, and their perspectives on what television programmes are 'suitable' for children to watch, are examined. Several studies highlight children's ability to bring their knowledge from various sources (eg social experiences, family, formal education, other media) to how they evaluate television programmes. Tobin (2000) showed how children talked about the 'good guys' and 'bad guys' in films they watched, and drew on culturally-bound constructions to recognise and describe 'right and wrong' actions. Other studies have shown how children's talk with their parents about what is 'real' or not on the television helps socialise them into media use and cultural norms (eg Pigeron, 2006). Sense-making resources are gathered from a number of sources. Engaging not only with friends and family but with the content itself can offer children a solid base upon which to establish critical judgment and awareness with respect to media use.

A number of studies demonstrate that children do have clear moral opinions about what constitutes 'good' and 'bad' television viewing for children. When asked what they thought was 'bad' for kids to see on television, more than half of the children in Walters and Zwaga's (2001) New Zealand study mentioned violence, followed by 'bad language', sexual/'rude' things (30%), and scary things and adult programmes (20% respectively). Half of all children reported that the reason they thought children their age should not watch 'negative content' on TV was because other children might imitate what they see, while 37% suggested it would cause them to get scared or have nightmares. Note, however, that these are accounts of why other children should not see certain material. The guidelines that children offer are generally designed for those younger, or less experienced than they are, and may echo the moral messages that adults may have used with them. As Tobin (2000) suggests, children are well aware of discourses around

television, violence, and gender, and use these in their interactions with each other, and with researchers.

Nor do children blindly accept the 'moral messages' that TV storylines and characters might convey as guides for their own life; they can, and do, have a critical discussion and reasoned engagement with television programmes (eg Buckingham and Bragg, 2004). However, the research as a whole is somewhat divided around what will by now be two familiar divergent positions: children as influenced by media (effects research) and children as self-regulatory users of media. These contrasting positions will be evident in the following examination of two illustrations used to elaborate behavioural and emotional aspects of children's responses to media sexual content and television news content. We begin with sexual content, selected because of its frequent occurrence in complaints to broadcasting authorities, its capacity to invoke 'moral panic', and its well-documented concern amongst parents (see below).

4.2 *Illustration: responses to sexual content*

The risk to children of accessing sexual images and references in the media is one of parents' primary fears regarding their child's media use. A New Zealand survey that asked parents what content they were uncomfortable with their children watching found that 40% of parents considered sexual content to be unsuitable for their children; a concern second only to violent content, which was considered unsuitable by 56% (Walters and Zwaga, 2001). In describing some of the limitations of the sexual content attitudes research, with both adults and children, Bragg and Buckingham (2002) suggest that participant responses can be influenced by the wording of the questions put to them (ie differences are observed depending on whether people are asked what 'offends', 'disgusts' or 'concerns' them). They also argue that surveys also tend to 'flatten out' variability in attitudes on both an individual and societal level. Much of the survey research has focused on the 'effects' of children viewing sexual content, and in the next section we present an overview of this work.

4.3 *Defining sexual content*

Before examining the range of documented effects and responses regarding children's viewing of sexual content, it is important to first consider how sexual content is defined and, secondly, to present the research on what sexual content children report viewing. As pointed out by Buckingham and Bragg (2004), research on sexual content is plagued by the difficulty of interpreting what counts as being 'sexual', as sexual messages in talk, movement and behaviour are often allusive or suggestive. There are also international differences in the definition of 'sexual content', which have resulted in some contradictory findings, particularly between American and British content analyses of sexual content (Bragg and Buckingham, 2002). British research in this area (eg Cumberbatch, Gauntlett and Littlejohns, 2003) has tended to be more refined and sensitive to matters of context, genre, and relevance to the storyline. As a consequence of this, the findings and conclusions of British studies are less sensationalist. It is suggested that the funding bodies behind research in each country (public health organisations in America and broadcasting committees in the UK) are relevant for the nature of both the coding of material and the conclusions drawn from the findings. Consequently, while there might appear to be international differences in the amount of sexual content on television, it is difficult to determine the extent to which this is an artefact of the research design and questions.

4.4 *Sexual content viewed by children*

The absence of national survey work in New Zealand means that we do not have information either about the scope of sexual content available to children on television or what they are (and are not) watching. However, by aligning what children say they like to watch with what is known about sexual content in various programmes on the basis of overseas research, it is possible to at least form an impression of what New Zealand

children may be regularly viewing. Shows like *The Simpsons* and *Friends*, among other internationally popular drama and comedy shows, are regularly rated among favourite shows by young people both in New Zealand and overseas. One of the most popular preferences stated by children in the Walters and Zwaga (2001) study included watching films on television and the New Zealand soap *Shortland Street*, which reflects a general trend for young people in all countries to enjoy films and serial dramas. Thus, analysis of sexual content in American and British terrestrial television is pertinent, as much of the content is also screened on New Zealand television. Similar programmes on New Zealand screens include the New Zealand made soap *Shortland Street*, *Home and Away* from Australia, and *Coronation Street* from the UK, and American shows such as *The Simpsons* and *Friends*, in addition to a large number of drama series and sitcoms. A good number of parents in the Walters and Zwaga (2001) study considered that *Shortland Street* and *The Simpsons* contained themes which were inappropriate for their children to be watching.

Statistical analyses of sexual content on American television have suggested that the sexually related material occurs between 5-10 times per hour in prime-time viewing slots, a rate which is double that of 1998 (Aubrey, 2004; Kaiser Family Foundation, 2005). Additionally, sexual content occurred more frequently in programmes most watched by American adolescents than in general prime-time shows (6.7 vs. 5 scenes per hour), and included serial dramas, soaps, sitcoms, and films, although such sexual content is rarely of an explicit nature.

In another example from overseas research, a British sample of television programmes (Cumberbatch, Gauntlett and Littlejohns, 2003), revealed sexual activity was alluded to or depicted in 21% of the programmes surveyed. Just under half of this was contained in films on TV and factual programmes; 20% was found in soap operas and drama; and just under 20% occurred in light entertainment and comedy. The majority of this sexual activity was infrequent and mild in nature (ie kissing), and over two-thirds of this content was screened post-watershed. The authors note that the figures may be inflated due to the screening of a documentary about sex during the sampling period. Relevant to New Zealand children's viewing preferences is the sexual content of films rated as most popular in the Walters and Zwaga (2001) survey. Comedy has been established as a preference amongst children of all ages, so it is particularly interesting to see in the British findings that sexual content is as frequent in comedy shows as in soaps and dramas. More adult cartoon programmes such as *The Simpsons*, popular in the New Zealand children's survey, have, perhaps predictably given their appeal for adult audiences, been found to contain more sexual content.

Some programmes created with a youth audience in mind perhaps counter criticism of their sexual content through the use of storylines that show negative consequences of sexual activity for their teenage characters, although generally, as one research article puts it, 'infection with *Chlamydia trachomatis* has not been a recurring storyline' (Clark, Cohall, Joffe, and Starr, 1997, p.102). Kunkel et al (2005) suggest that there has been an increase in talk about risks and responsibilities in relation to sexual talk and activity over the past few years, and that this increase has been particularly noticeable in shows aimed at teenagers and young people. Among these shows with any sexual content, 17% contained talk about risks and responsibilities, and this rate was higher where teen actors either talked about or engaged in intercourse (35%). Aubrey's (2004) analysis of programmes featuring characters aged between 12 and 22 found that while around 35% of programmes with teen sexual behaviour involved a negative consequence, this consequence was physical (ie an unwanted pregnancy or STD) in only 5% of cases. Negative emotional and social consequences (such as guilt or rejection) were more common. Aubrey (2004) noted that these negative consequences were more likely to occur when a female had initiated the sexual activity.

4.5 Effects

The negative consequences ascribed to sexual teen characters on television appear to be mirrored in much of the literature about the effects on children of viewing sexual content. Typically survey-based, such research attempts to establish correlations

between the type and amount of viewing, and the sexual behaviour and attitudes of young people later in life. The assumptions of much research in this area reflect the shortcomings of much media research – it takes the idea of children as passive ‘victims’ of media messages, uncritically absorbing and copying the images they are exposed to. Sternheimer (2003) describes such research as indicative of a general moral panic regarding the ‘children of today’, and as a reflection of social understanding about childhood. Furthermore, much of the research makes assumptions about how children understand and respond to the sexual talk, behaviour and allusions in the media that are not verified by children’s own accounts of their responses, understanding, and competencies as viewers and media users. As we demonstrate throughout this review, any association between media content and a child’s general wellbeing, development or behaviour is far from straightforward.

The emerging research picture is that relationships between sexual content and effects are highly complex, and depend on a number of factors including television genres, ethnicity, SES, individual personality differences, and parental and peer mediation (Ward, 2003). Chapin (2000) suggested that research has thus far failed to consider the interconnectedness of many of these factors, and argued that future research needs to pay more attention to children’s biological, social, and cognitive development in both the design and interpretation of studies. A recent review of research on media effects on sexual attitudes and behaviour similarly concluded that there is a dire lack of recent and robust research in this area (Escobar-Chaves et al, 2005). Existing studies have limited generalisability through issues with research design (such as small sample sizes), and thus are not particularly helpful in establishing public policy. As suggested by Huston, Wartella, and Donnerstein (1998), much more research is needed to either support or dispel the popular belief that sexual content does have a significant effect on the sexual attitudes, beliefs, and behaviours of young people.

A substantial longitudinal survey of 12-17 year olds (Collins et al, 2003) found that heavier viewing of sexual content on television (defined as both sexual talk and sexual behaviour) was associated with earlier initiation of sexual behaviour. In terms of attitudes, Ward (2002) found that greater exposure to sexually oriented genres (such as soaps and music videos) was associated with more liberal attitudes towards sex and relationships. Much of the research in this area has claimed a simple correlation between the amount of television watched and later sexual outcomes. In order to address this, Ward and Riverdeneyra (1999) considered both amount of viewing and the extent of viewer involvement in television watching. While both were found to be related to sexual attitudes and expectations, it was involvement with watching that was a more consistent predictor. That is, viewer motivation, the extent of active viewing, perceived realism, perceived relevance, and identification were more strongly associated with sexual outcomes. This was particularly so for females.

Exposure to music videos has been associated with sexual behaviour in terms of both attitudes and sexual activity. For instance, a heavy ‘sexual media diet’, particularly in movies and music, has been associated with earlier sexual activity of children, and reports of stronger intents to be sexually active in the future (Pardun et al, 2005). One study of nearly 1000 children aged between 12 and 15 found that watching music videos regularly, and wrestling shows weekly, was associated with lower rates of agreement with the statement ‘forcing a partner to have sex is never OK’ among boys (Kaestle, Halpern, and Brown, 2007). One worrying finding of Kaestle et al’s survey was that overall nearly ten percent of males and nearly seven percent of females disagreed strongly with this statement. In addition to this high baseline rate of acceptance, it seems reasonable to suggest that the wording of this question might lead to ‘false answers’, and participant error may play a part in the findings.

It has been suggested that exposure to sexual material in media can result in the learning of sexual scripts, which have consequences for the sexual behaviour of young people. For instance, L’Engle et al (2006) showed that media accounted for 13% of the variance in the ‘intention to have sex in the near future’ among adolescents. It is argued that the media serves as a socialisation agent for young people, and by watching people they like and admire engaging in certain behaviours, young people are likely to imitate them. They suggest the media serves a role as a kind of sexual ‘super peer’ for those young people

seeking information about sex. The same has also been said of the media's role in teaching young people about alcohol, tobacco and drugs (see Gruber et al, 2005; Strasburger, 2001), and in teaching young girls about early maturation (Brown, Halpern and L'Engle, 2005). Typical of correlational research of this kind, causal relationships cannot be determined, and, cognisant of this, the authors also point to the prominent and significant role of other variables associated with sexual intentions and behaviours. These include a child's relationship with their mother, the use of hands-on parenting in the home, the perceived parental view of sex, the perceived teacher's view of sex, school grades, and perceived peer sexual behaviour.

Some writers have pointed to the consequences that representations of gender in sexual and relationship storylines may have for viewer's understandings and perceptions of gender relations. For example, Kim et al (2007) analysed the content of prime-time shows to examine what they described as the 'heterosexual script' in these programmes. The script is argued as depicting men and women's behaviour, thoughts and feelings in terms of sex and relationships in ways that perpetuate power differences between the two genders, with men, for instance, pursuing sex in direct and aggressive ways.

Tolman et al (2007) sought to examine how exposure to these gendered and stereotyped scripts influenced the behaviour of young viewers. They found that exposure to 'heterosexual scripts' on television was a better predictor of sexual agency and behaviour among 11-17 year olds than viewing sexual talk and behaviour alone. Among girls, those who viewed more instances of women as 'sex objects' reported less sexual agency and more sexual experience than others. Girls who watched more instances of the 'good girl' script, where the female sets limits on her behaviour, reported higher levels of agency. Few associations were found for boys, other than the somewhat counter-intuitive finding that those who watched more instances of men aggressively asserting their masculinity reported less sexual experience. It should be noted, however, that these measures of television content accounted for very little of the variance in sexual behaviour. Grade level, school performance, and delinquency were much stronger predictors.

Some research has pointed to how television can, and does, offer a 'healthy' source of information about sex. Indeed, some American television producers have sought advice from public health organisations regarding how to integrate 'healthy messages' into their shows (Keller and Brown, 2002). These have included teen programmes such as *Felicity*, *Dawson's Creek* and *Beverly Hills 90210*, as well as programmes watched by teens like *Friends* and *E.R.*, and involve issues such as a character's use of contraception, or how to present a storyline about date rape (Folb, 2000). In America, an organisation called Population Communication International has established a series of 'Soap Summits', which aim to 'bring a heightened awareness of the importance and power media and the creative community play in shaping attitudes and behaviour' (www.population.org). Established in 1994, these summits offer a forum for discussion between health professionals, soap producers, and other media professionals about health and social topics in relation to the media.

An organisation called Advocates for Youth in the United States arranges annual visits for American researchers and youth to European countries where teen sexual health is substantially better than it is in the US. One report of such a visit pointed to the importance of the social culture in the Netherlands, France and Germany in terms of children's valued role in these societies, and how relationships and sex were talked about both in homes and in schools (Feigoo, 2001). Sexual activity among older adolescents is deemed normal and natural (and even positively) by adults in these countries, but there is a strong insistence on safe sex – unsafe sex is considered to be 'stupid and irresponsible' (p.4). Feigoo points to the role of the government and media in establishing and maintaining a culture, and suggests that in these countries, the 'Governments support massive, consistent, long-term public education campaigns utilizing the Internet, television, films, radio, billboards, discos, pharmacies, and health care providers. Media is a partner, not a problem, in these campaigns' (Feigoo, 2001, p. 4).

In America, the United Kingdom, Australia, and New Zealand, and other countries, more often than not, media is seen primarily as problematic in terms of the sexual health of young people. A recent APA report on the 'Sexualisation of Girls' (2007) noted the role of media in promoting the early sexualisation of young girls. However, in addition to being

counter to the understanding and use of media in the European countries mentioned above, these interpretations of sexual talk or activity in the media as inherently problematic also run counter to how young people view sex and sexuality in the media. Media, along with peers and mothers, is often used for information about sex. An American study found that more than half of the young people surveyed reported finding information about sex and contraception from TV, and 40% had used the internet (Kunkel et al, 2005). An earlier survey found that 60% of young people reported having learnt how to say 'no' to sex through watching television (Kaiser Family Foundation, 2003). Collins et al (2003) found that six months after an episode of *Friends* featuring condom use had aired, between 10-18% of 12-17 year olds surveyed claimed to have learnt something about condoms from the show, including the efficacy of condoms as a contraceptive. Furthermore, 10% of respondents reported talking to an adult about condoms after watching the episode.

4.6 Children's interpretations of sexual media

...we need to engage much more profoundly with questions about how sexual representations in the media connect with the disparate cultural competencies of young people. How does sex on television invite young viewers to relate to themselves – to imagine or construct themselves as particular kinds of selves, or particular kinds of sexual beings? What kinds of resources for shaping and managing personal life does television offer in this respect? And how do young people themselves use and interpret these representations in their efforts to forge their own sexual identities, and to make sense of their own experiences and relationships? (Bragg and Buckingham, 2002, p. 44)

When children are given the opportunity to talk about what they think of content on television, a rather different picture emerges from the alarmist perspectives underpinned by moral concerns. The work of Buckingham and Bragg (2004), for example, demonstrates how children themselves respond to and make sense of sexual talk and behaviour in the media. Girls, in particular, indicate that they like watching 'romance' as it can be a useful source of information about how to deal with boys and relationships in later life. That said, it is clear that children have limits with what they are comfortable with watching. While kissing and low-level sexual behaviour or talk is seen as okay, 'porno' or full-body nudity is not and may be considered inappropriate or 'gross' (ABA, 2000; Bragg and Buckingham, 2004; Buckingham and Bragg, 2004)

Children express the view that their parents' concern about their viewing of sexual content is unfounded. Perhaps in a desire to appear media or sex savvy, young people report their comparatively sophisticated responses to sexual scenes, and a greater ability to cope with this material than is expected of them. For instance, where parents claim a scene is 'rude', children might claim instead that it is entertaining (Bragg and Buckingham, 2004). Furthermore, young people often claim that they already have knowledge and understanding about sexual matters, which their parents have failed to recognise. At the same time, some young people also report being embarrassed watching these scenes with their parents and would prefer to be watching alone. In part, this comes about as a result of the sort of reactions parents have to sexual content in a co-viewing situation. Parents' responses to sexual scenes on television are reported to include teasing or joking, switching the channel, looking at the child, or using storylines such as teenage pregnancy to warn children not to do the same. To deal with this, children report at times covering their eyes, leaving the room, or engaging in a moralistic discourse (eg: 'there's too much sex on TV!') (ABA, 2000; Bragg and Buckingham, 2004; Buckingham and Bragg, 2004).

Young people accurately understand their parents' concerns with this material as due to a fear that they will imitate what they see, or that their views on relationships will be negatively influenced. It has been suggested that claims and enactments of embarrassment can reflect a child's sense of their identity in relation to their family, as well as in relation to their development and age (Bragg and Buckingham, 2004). To claim a degree of comfort with sexual scenes could be considered to represent a claim about one's level of maturity. Furthermore, children suggest that the kinds of responses made

by parents reflect the parent's own embarrassment and discomfort with this kind of content (ABA, 2000; Bragg and Buckingham, 2004).

Parents report that they actively use television programmes with sexual themes as an opportunity for discussing these issues with their children. In this way parents may support or challenge the moral messages embedded in a show. Again however, children report being embarrassed when parents use television in this way. Bragg and Buckingham (2004) note that these discussions may be problematic in that rather than promoting debate, they can instead promote a fixed moral stance.

One general finding is that children are well aware of the concerns and debates regarding their exposure to sexual content in media. Interviews with young people have shown that they both reproduce these discourses, and produce their own counter-discourse to these 'adult concerns' (Bragg and Buckingham, 2004; Tobin, 2000). Tobin (2000) discusses in detail how children's responses to questions about what makes for 'appropriate viewing' demonstrate their appropriation of the moral messages found in talk about the media. In this way they produce themselves as 'media savvy', as well as what Bragg and Buckingham (2004) describe as being 'sex savvy'.

4.7 *New media*

In contrast to the regulation of television, the rise of the internet has meant relatively unlimited and uncensored access to sexual material. Among media, parents, and in public discussions, the internet has been a cause of concern for the risks of children accessing pornographic material, and being easily duped into sexual encounters via chat rooms (Biocca, 2000). Literally millions of pornographic sites are accessible, and the interconnectivity of mobile devices and the internet now facilitates multiple opportunities for the circulation of sexual material as well as access to it. A survey by Mitchell and colleagues (2007) showed that there was an increase between 2001 and 2005 in the amount of unwanted pornography that children have seen on the internet – even when increased access and hours spent on the computer were accounted for. The authors suggest that increased connection speeds and computer processing might account for some of this increase but they also point out there is an increased presence of spyware and adware on the internet which can cause pop-ups, direct users to pornography sites, or install links to pornographic sites on otherwise legitimate websites. It is noted that spyware and the like are often bundled with game downloads, which are used heavily by young people, and may account for their increased exposure to unwanted sexual material.

A recent survey of American children found that 19% of children aged between 10 and 12 had experienced 'unwanted exposure' to pornographic material, and this rose to 35% for the older age group (Mitchell, Wolak and Finkelhor, 2007). Most of the sexual images that children see on the internet are those they do not seek but which just come up on the screen – they appear in 'pop-ups' (small advertisement panels) in IM or email programmes, or on a non-pornographic website, and, in some cases, filtering software may not effectively prevent them. While children themselves commonly report they would prefer not to see unsolicited sexualised images, the challenges of eradicating such images on the internet are formidable, to say the least. Although unwanted, assumptions cannot be made about them as detrimental, and children can and do eliminate such images quickly if they do not wish to view them.

4.8 *'Frightening' content: emotional responses to 'scary' television content*

Public concerns about sexual content being detrimental for children accord with a more global concern about children being harmed in some way by what they see and hear. Other than the 'moral' harm of sexual content, emotional harm perhaps lies at the core of much concern – will children be upset, frightened or disturbed by what they see? The increasing attention accorded to children's experiences of watching television and using other media in audience research has seen an increasing appreciation of children's emotional responses to media. This kind of research alerts us to the idea that a question

such as 'does TV frighten children?' turns out to have quite a complex set of answers. In some respects, children appreciate television in very similar ways to adults; the sense of fear in watching 'scary programmes' or thrillers, or the sense of threat we might experience watching the news, are not things that adults avoid – they are things that adults may seek out and enjoy on some level. Recent research has largely demonstrated that children are competent viewers of frightening material (Walters and Zwaga, 2001). This competency is one that is dependent upon the child's understanding of the fictional level of the film or programme, as well as the production standards in this kind of genre. These skills are as much reliant upon the child's developmental stage as they are on the kinds of viewing behaviours and viewing literacy they are socialised into in the home. Buckingham et al (2006) examined the ways in which the perceived reality of a televised event was related to children's responses. They found that the greatest fear responses were those in relation to events which seemed particularly real to the children. One of the most frightening genres reported among this cohort of British children was ghost and paranormal shows. One particular show, a 'mocu-mentary' of a ghost-hunt that was particularly realistic, was found to have resulted in a strong fear response in many of the children.

Violence is the primary aspect of television that parents and children express concern about viewing. Often it is imitation, rather than fear or distaste, that is seen as the most troubling consequence of viewing this material by both children and adults, although 30% of New Zealand children suggested 'being scared' was a reason for kids not to see some content (Walters and Zwaga, 2001). Interestingly, children suggest that it is soap operas that they consider to contain the most violence (Millwood Hargrave, 2003). However, this genre is unlikely to inspire feelings of fear among young viewers as they report distancing themselves from the actions and attend to the 'entertainment value' of these programmes. When asked what material frightens them, children frequently report the news (Millwood Hargrave, 2003). This format is less amenable to being accorded 'entertainment' value and in some instances may be difficult for children to distance themselves from. Accordingly, in the next section we use television news programmes as a particular illustration of emotional responses to television viewing.

4.9 Illustration: children's responses to TV news

While children do not necessarily choose to watch the news they may nonetheless be in the same room when it is broadcast. Depending on the house rules and access, a young person may be able to watch something else on a TV in another room, but in other instances it would seem that children 'have' to watch the news due to its timing during the 'family viewing period'. In a New Zealand survey, 21% of a sample of 10-11 year olds watched the news 'all of the time', and a further 65% watched sometimes (Lealand and Zanker, forthcoming).

Given the often 'adult' content of news programmes and stories, it is important that the ways that children respond to news content is placed on the research agenda. Overall, however, there has been relatively little research in respect to children's actual viewing of the news, and it has largely been overlooked in accounts of children's television viewing more broadly. For instance, one large UK-based survey of categories of programmes children watched did not even offer 'news programmes' as an option (OFCOM, 2005). Nor does news feature highly among parents' stated concerns about the television their children watch. In one British survey, half of all parents expressed some concern about their children's exposure to television content – the biggest concern was music videos, with news programmes falling behind *Eastenders* and *The Bill* (OFCOM, 2005). Similarly, a New Zealand survey (Walters and Zwaga, 2001) found that news content featured low on a scale of how concerned parents were with respect to various material. While over half mentioned 'violence' and 40 percent mentioned sexual content, only 8% of parents thought that the news contained content unsuitable for children. Parents often value news watching as an educational experience through which their children can stay informed about current affairs. As one parent in a NZ On Air study described it: 'the news shows them what's happening around the world. They've got to understand what makes the

world tick. Things that affect their future, like student loans, university, education, the job market. And world affairs like East Timor' (Colmar Brunton, 2000).

Despite limited parental concern about television news, it is news footage, amongst all the content on television, that is considered by children to be the most violent, and which results in the greatest fear and distaste response (Millwood Hargrave, 2003). A telephone survey of 537 children aged between 7 and 12 in the Netherlands found that nearly half of those who had watched a news programme reported experiencing fear while viewing (van der Molen et al, 2002). Among this Dutch sample, interpersonal violence was reported across most age groups as the most 'fear-inducing' content on the news, and particularly among older children. While a fear response to news decreases with age, there is also a developmental change in the nature of fear responses. Younger children are more likely to report experiencing fear in relation to coverage of natural disasters or accidents such as fires, while older children (around nine and over) often report fear in response to relatively abstract threats, such as war or the environment (Cantor, 1998). It has been suggested that this is related to the development of empathy, noted around the age of nine, that children experience with respect to others and the world around them (Cantor, 1998). One kind of news item often cited by children as the type of content most likely to result in a response of fear or distaste is harm to a person or animal (Valkenburg, Cantor and Peeters, 2000). Fear responses are also more likely to occur when news stories describe a victim who is similar to the viewer by virtue of age and gender (Knobloch-Westerwick, 2006).

The localness of an event depicted on the news has been found to impact on children's fearfulness as well, with greater levels of fear when stories are understood to have a local component or relevance. Smith and Wilson (2000) used experimental methods to examine the effects of proximity and visual footage in a news story about gang violence, on children's fear responses. Setting aside ethical issues in the research, the use of visual footage was found, somewhat surprisingly, to decrease children's fear response to a story. The geographical location of the event (local or non-local) did not have any influence on 6-7 year olds' responses, but 10-11 year olds were more likely to experience fear if the story was set in a local area.

One type of non-local event that is currently regularly available to New Zealand children via TV news is coverage of war. An American survey of parents regarding their children's fear responses to coverage of the war on Iraq found that younger children were reportedly more scared by visual images than by more abstract, verbal threats, which were more likely to invoke a fear response among older children (Smith and Moyer-Guse, 2006). However, there are likely to be discrepancies between a child's fear response, and a parent's understanding and reporting of that fear. Notably, when parents have been asked about their children's fear responses to news stories, no gender differences have been found (eg Cantor, 1998). However, significant gender differences are found in children's self-reported instances of fear (eg van der Molen et al, 2002), in that boys are less likely to report being scared by violence on television. This discrepancy may demonstrate how for both parents and children, fear responses are already clearly developed, gendered social responses.

A number of studies about news viewing have looked at children's reports of fear responses to news stories, particularly with respect to events such as 9/11, and the war in Iraq. It would seem that the images of suffering that these news stories entail may be more likely to invoke the sense of empathy which Cantor (1998) suggests is tied up with the experience of fear. This is especially so when child and animal victims are televised, and the viewer experiences a sense of identification with, and empathy for, that victim (Millwood Hargrave, 2003). The sense of empathy develops as the child gets older, and for adolescents, suffering is more likely to result in fear than accidents and natural disasters. Research seeking children's perspectives might be understood in terms of children's competencies as news viewers, in that their socially appropriate responses to news content affirms their understanding of the implications and potential threats that these newsworthy events carry. However, responding with fear or distaste to news items may reduce with exposure. Millwood Hargrave (2003), for example, noted that an increased familiarity with some news stories could have implications for how young people responded to them – for instance, the ongoing talk of 'the Middle East problem'

could be considered to be 'boring' (p. 34). One aspect that has not been widely discussed in the research literature is the benefits that the ability to gather information about the world might offer to adolescents and pre-adolescents. As a child's sense of empathy develops the news offers a form of socialisation into the 'global world', and 'distant events' can become increasingly 'close'.

4.10 Children in the news

From a different perspective, children may also be affected as subjects of the media. Journalists often interview children, and as news items increasingly focus on accidents, crime or disasters, often the interviews are with children who have been subject to trauma. Perhaps the major concern about gathering children's perspectives on traumatic situations relates to the notion of 'secondary traumatising'. A growing body of psychological research literature documents the heightening of distress from re-exposure to a traumatic event through re-experiencing it. Such re-experience may occur in a variety of different modes, such as talking about it, seeing replays of the event, hearing sounds associated with the event, and so on. So a child interviewed by a journalist following exposure to a traumatic event may be retraumatised by the process. However, this cannot be represented as a general effect as not all children are necessarily affected in this way. Indeed, it would seem that some New Zealand journalists subscribe to the view that allowing children to tell their traumatic stories in a media context might be beneficial, if done in a sensitive way (Fullerton, 2004; Robson, 2001). There are likely to be many variables that influence whether and how children are affected by viewing traumatic material, for example, how their families respond to both content and to the child.

Guidelines for the news media must balance the rights of children to privacy and protection from harm against the need for the public to be informed about important issues. UNICEF (2007) has quite specific guidelines around protecting children from retraumatisation through having them talk about traumatic or painful experiences in an interview. While most regulatory broadcasting authorities do have some guidelines to protect children, retraumatisation issues of interviewing are sometimes overlooked. Canadian researcher Romayne Smith Fullerton (2004), a journalism lecturer, suggests that news media interacting with children should adopt more rigorous guidelines along the lines of the protocols used by the social sciences. She states: 'Leaving individual journalists responsible for responding to situations as they arise is clearly not enough'. Fullerton's view finds some support amongst New Zealand journalists. Robson (2001) interviewed several New Zealand journalists on their approach to dealing with children, and found they were willing to forgo coverage if they believed it was not in the child's best interests. Although the clinical field has produced fairly convincing data about the need for sensitive and skilled approaches to interviewing child witnesses to trauma (Davies and Westcott, 1999; Poole and Lamb, 1998), the problem for regulating media bodies charged with serving children's interests is the lack of research data specific to the media context. Clearly, this is an area in need of further research.

4.11 Summary

The review of literature on children's responses to media underlines the importance of not making assumptions about the impact of media on children, and in particular influences on their behaviour and their emotional reactions to adult-defined 'disturbing' content. Rather, a range of factors related to the child (eg age, gender), content (eg familiarity and exposure), and context (eg co-viewers, reactions of others) intertwine in various ways to influence children's responses. So, too, is it important not to make assumptions of harm when there is evidence of children's competencies to deal with material deemed 'harmful' by adults. Elements of these core findings are summarised in the points below.

- Children are themselves regulatory in deeming what is 'bad' for other children to watch on television, and are also highly critical of adult attempts to prescribe what is 'good' for them to watch or to use programme content to 'teach' moral lessons.

- In terms of sexual content, the effects literature is relatively sparse and what is available focuses on the impact on attitudes to sexuality and sexual knowledge. It appears from this research that sexual content on television does provide a resource for young people in learning about sexual matters.
- Interpretive research approaches indicate that children are very aware of parental concerns regarding sexual content (eg embarrassment), and parents underestimate what children already know, and their ability to deal with content they do not wish to see.
- Children are most likely to respond with fear or anxiety to programmes that depict harm to others or to animals, particularly where the content is local. Television news has received little attention in the literature and, clearly, further research is needed given that this is the programme identified by children as containing the most fearful content.

5.0 Reflections and Directions

In this closing section of the review, our purpose is twofold. Firstly, the goal is to reflect on matters of technology and methodology as important contexts for considering the findings documented in the literature. Secondly, the aim is to draw these reflections into consideration of avenues for future research and to document them by way of recommendations.

5.1 Methodologies

Addressing the first goal, the intention in this methodologies section is to provide a brief commentary on the methodologies used in the body of studies that have been reviewed. The commentary is organised around the broad groupings of approaches that may be summarised as questionnaire/survey research, experimental studies, and qualitative research.

5.1.1 Questionnaires and surveys

Although our review has demonstrated a range of approaches to studying children and the media, the predominance of questionnaires or surveys is striking. Our knowledge of children's media use – how, when, why, and where they use it – is largely gathered from survey methods. Content analyses provide us with useful information about the 'what' of media use. User surveys reveal areas such as preferences and opinions and can inform to some degree contexts of use. There are, however, some limitations to survey methods. A user survey assumes that what children write on a questionnaire is a reliable source about what they actually do. Such an assumption may be flawed for a variety of reasons, such as deliberate misinformation, pressure from others, providing what is perceived an adult wants, and so on. Understanding questions is an interpretive practice and the meanings intended by an adult constructing the survey may not be the same as those understood by the child participant.

5.1.2 Qualitative approaches

Many experimental and survey methods fall within what Silverstone (1994) has termed 'media qua material technological', in that they focus on analyses of use in everyday consumption. A much smaller body of the literature reviewed may be drawn together under the umbrella of Silverstone's 'media qua texts/symbolic messages', in that they focus on the relationship between media texts and the interpretive aspects of children as audience – ie children as both users and interpreters of media. It is important to note that some experimental studies have attempted to look at how and when children and adolescents actually do actively derive multiplicity in symbolic meanings from the media (eg Calvert, Strouse, and Murray, 2006; Low and Durkin, 2001). On balance, however, studies that could be grouped in this latter way often draw on qualitative approaches to research, such as observation, action research, interviews, focus groups, and innovative techniques including journaling, drawing, and audio or video recording. Much of the New Zealand work has been conducted in this way, frequently in government or agency-led reports, rather than publications in academic peer-reviewed journals that, unfortunately, limit the work's accessibility and relevance to the larger scientific community. A particular strength of this diverse collection of approaches is their appropriateness for children and for the changing social worlds that they inhabit.

5.2 Directions for future research

Clearly, each methodology has its respective strengths and limitations. At the same time each contributes to particular aspects of knowledge about ways that children access, use, and understand media. As such, it would not be appropriate to prize one approach over any other but rather to advocate for triangulation and cross-fertilisation in order to capture the many different facets of children's media worlds.

Reflecting on some of the gaps in the literature reviewed reveals three aspects of the ways in which future research on children and the media might usefully be developed. Firstly, the development of methodologies for a new media era; secondly, development of more diverse research methods appropriate to children; thirdly, development that recognises the competency of children as media consumers and audience. There is, of course, overlap between these suggested developments. Wherever possible, examples from the literature reviewed are used to elaborate ways of facilitating the suggested developments.

5.2.1 Developing methodologies for a 'new' technological age (guided by the 'old')

As noted in our introduction to this review, much has changed in the media landscape over the last half century. Not only has 'new' technology radicalised communication but it has also opened up 'new' ways of accessing and using 'old' media such as television and radio. In this postmodern age of plurality and multiplicity of choice, children may engage in multitasking using various media interactively and simultaneously. They may simultaneously download songs onto their computer, mobile phone, or iPod, research a school project using information on the internet from a television documentary; and instant message a friend to catch up on a missed episode of *Shortland Street*. As evident in the body of the review, research has struggled to keep pace with such change. Perhaps this is not surprising in light of Sonia Livingstone's (2002) comments about the particular challenges of researching 'new' media, many of which relate to its 'private', multimodal and complex character. However, she argues that our 'old' television audience research may be particularly appropriate to studies of 'new' technology use, incorporating both reception (interpretation or meanings) and consumption.

5.2.2 Developing diverse, child-appropriate approaches

So what methods might be used in this era of 'new' media? There is a clear need to develop upon the innovative approaches used by some researchers in their study of children's media use and interpretation, not only for 'new media' but also for the 'older' broadcast media. In our review several studies stood out in this way and, notably, some of the most innovative approaches have been taken up by New Zealand researchers. The use of 'naturalistic' home observation in Lealand's (2001) work is a good New Zealand example, while in the UK Livingstone's (2002) use of drawing a dream bedroom and keeping a media journal are particularly useful approaches. In terms of children's cognitive development and media use, innovative approaches led by Sandra Calvert at the US-based CDMC include studying what it is specifically about interactivity in media content and platforms that assists in the learning and acquisition of information. Calvert et al's (2001) work using an internet game format to collect data is an excellent example of one of the few studies to engage with new media technology for innovative data collection. However, there is an increasing collection of studies using internet material as a source of data by examining how children interact in chat rooms and discussion boards, build websites, or write their 'diary to the world' in the form of a blog. Other projects have involved establishing a dedicated centre for children to use computers and the internet after school, and thus offered a practical benefit for the children and community in addition to an opportunity to research the way children engage with new technology, and each other.

Keeping pace with changing technologies, several studies equipped children with audio recording gear or video cameras as means of children recording their media worlds and responses to it (eg Baker, 2001, 2004; Minks, 1999). Other research has demonstrated the ways in which children use technology as a resource for play or other social interactions (Lemish, 1998; Suess et al, 1998; Butler, 2007). Broadcast media is increasingly using communication technology (especially texting) as a means for children to interact with 'old media': children can text for the music video they want to see or for the 'pop idol' they want to win the New Zealand title; enter a competition online; or talk about the latest episode of a show with friends via email, IM, or a message board.

5.2.3 Developing methodologies that recognise children's media competencies

Most, if not all, of the research philosophy reviewed here values children's growth and development in one way or another, in that investigators have all been concerned about the ways in which children attempt to impose meaning on their media experiences. Many of the researchers can indeed be grouped as attempting to take into account children's own voices, their own lived experiences, by implicitly drawing from the following research question in their minds: 'What do children think about and do with media?' And the results indicate that children think actively about media content, and also critically and creatively use media to suit their own developing personal and social needs. Research emphasising the social aspects of media processing highlights that children profit most when the viewing experience is a social and interactive one, and demonstrates that children creatively take media content to make new media (eg mix tapes, make MP3 playlists), and to build friendships and identity (eg via peer discussions). Other research looking at how media is used shows that it is part of a larger social fabric where access is complexly determined by family economics, family rituals, and perceptions of leisure, individual differences in viewing preferences amongst family members, and interest in new technology. Overall, the media comprises just one component in children's complex internal and external lives. The old image of a passive child transfixed by the eerie cold light of a television screen is now being replaced by an image of a thinking child surrounded by family and peers and grounded in contextual and societal values, who lives in a multi-media world.

Importantly, conducting research that appraises children's competence as active processors of media is not locked into a particular method. For example, experimental work from one of this report's authors dovetails with qualitative findings showing that children can arrive at different meanings of media content – in this instance pointing to the way differences in cognitive abilities and processing styles, and differences in children's social viewing contexts, engendered diverse interpretations (eg Low and Durkin, 1998, 2001). From a different perspective, qualitative work undertaken by Bruce Flanagan (2006) suggests that in a group situation, some children often relinquish their own acceptable sense-making of media content in favour of more dominant ideas expressed across several children. So it is important to be mindful that even though plurality in meanings is derived across children when interpreting media content, it does not mean that children always get to arrive at and retain their own meanings of media content. The point to be highlighted here is that it is no longer so clear-cut that some methodologies value children as active agents more so than others. It is more parsimonious with extant research to suggest that while most studies on media and children value children's understandings of and responses toward media, the centre of gravity in their methodology and theoretical anchoring differs (Livingstone, 2004). What appears to be happening in research on children and the media is that the different methods are showing sizable overlap in findings, and also that findings from particular methods are offering new research directions and suggestions for other methods of analysis.

5.3 Summary

Child-appropriate research directions are emphasised in the context of children inhabiting a rapidly expanding new media environment. 'New media' with its digital and interactive signatures (hypertext in mobile phones, in palm pilots, on the internet, on digital TV, on DVDs) invites interactive communication where users need to be mindful about purpose, authority, validity, and intentionality. Are children explicitly mindful about such facets in new media? There are reports that children can traverse the digital divide, but there is little research separating what children say they can do with new media, and what they actually do and think about new media (especially when so much of new technology is used in the privacy of the bedroom). It is a gap that requires methodologies that not only treat the child as agentic but also embrace approaches that work with the complexity of children operating in a new media environment. It is research that asks how children read media, whether practices gained in one platform are generalised to another, how the

social context influences practices, and what emerging cognitive skills help children interact critically with and through media more effectively.

We agree with Sonia Livingstone (2002, 2004) that in conducting audience research with children it is important to recall and not reject the body of multidisciplinary media research conducted in the era of earlier television audience research. In order to develop methodologies that value children's own active role in determining how they relate to media, a multidisciplinary view is needed that embraces both qualitative and quantitative approaches, both observational and laboratory experimental approaches, both cognitive and social developmental approaches, both psychology and sociology, both humanities and biological sciences. Balanced and careful investigations into both effects of and effects on media use are also important (Livingstone, 2004). Ultimately, this means that to develop methodologies that highlight the active child audience, researchers need to keep up to date with theoretical and methodological advancements in various fields in a critical but open-minded fashion. While these recommendations make research on children and media more challenging, the outcomes would be invaluable for painting a more coherent and cohesive picture of how children actively negotiate their social environment.

Overall, while developing children have much to learn about the current and new media landscape, we add our voice to those of other researchers (eg Anderson and Pempeck, 2005; Buckingham et al, 2003, 2006; Calvert, 2001; Gauntlett, 1998; Livingstone, 2004; Wartella et al, 2000) who take a balanced and critical approach to interpreting media research, and conclude that rather than being naïve and unsophisticated, children are active agents in their relationships with media and bring with them a host of skills and knowledge. The challenge for the future is to study in an interdisciplinary theoretical and methodological fashion how children's cognitive, social, and ecological development interface with their media use, access, and responses.

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