

Mediating Media: Research into the Changing Domestic Context of Children's Culture

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DRAFT: NOT FOR CITATION

Introduction:

Historians remind us that our conception of childhood -- and our research interest in children's socialization, both arise from at least a three century long struggle over the valorization of 'children'. Researchers concerned with children carefully studied their lives in schools, in family, among peers and community helping to forge our child-oriented society. This research has laid the foundation for our burgeoning academic interest in children's culture today. Until recently, media played a rather minor part in our thinking about children's development. Yet as children's infatuation with media grew from 1.2 hours in the 1950's to 5 hours today, all that has changed. As Joe Kincheloe (1997) states, all of us researching socialization can no longer "escape the influence of the postmodern condition with its electronic media saturation" and the changes taking place in schools, peer cultures and family life because of new media.(Kincheloe & Steinberg, 1997) .

Many commentators are ruthlessly optimistic about the coming digital age. In his book Being Digital Negroponte (1995) assures us that new media have set our children's culture on a positive trajectory:

We are not waiting on any invention. It is here. It is now. It is almost genetic in its nature, in that each generation will become more digital than the proceeding one. The control bits of that digital future are more than ever before in the hands of the young. Nothing could make me happier (Negroponte, 1995).

Douglas Rushkoff in Playing the Future similarly writes optimistically about the effects of this new wave of interactive entertainment on youth: "While their parents may condemn Nintendo as mindless and masterbatory, kids who have mastered video gaming early on stand a better chance of exploiting the real but mediated inter-activity that will make itself available to them by the time they hit techno-puberty in their teens". Douglas Rushkoff, goes on to quote Timothy Leary in support of his optimism about interactive media:

The importance of the Nintendo phenomenon is about equal to that of the Gutenberg Printing press. Here you had a new generation of kids who grew up knowing that they could change what's on the screen. (Rushkoff, 1996: 30)

Negroponte similarly asks us to imagine a future where children's lives will be transformed by digital communication technologies:

your right and left cuff links or earrings may communicate with each other by low orbiting satellites and have more computer power than your present PC. Mass media will be redefined by systems for transmitting and receiving personalized information and entertainment. Schools will change to become more like museums and playgrounds for children to assemble ideas and socialize with other children all over the world. The digital planet will look and feel like the head of a pin (Negroponte, 1995).

Many of our colleagues show a similar enthusiasm for this brave new digital world in which children have become the pioneers of electronically mediated social relations in a digital culture.

Yet for those of use with an historical imagination, its "déjà vu all over again". Lynn Spigel reminds us of the similar rhetoric that engulfed the introduction of television both in the popular press and among educators who wanted to use TV as a powerful enlightenment tool. Yet the early optimism that shrouded this "window onto the world" gave ground to a growing panic about television's insidious effect on the American way of life. As Spigel notes:

Though it emerged in 1950's amidst enthusiasm that would inform, educate and entertain the privileged post war baby boom: mass media have also been seen as a threatening force that circulates forbidden secrets to children, and that does so in ways that parents and even the state cannot fully control. Worse still, parents may not even know how and where their children have acquired this information. "With the mass commercial dissemination of ideas, the parent is so to speak left out of the mediation loop, and the child becomes the direct addressee of the message. Perhaps for this reason, the history of children's involvement with mass media have been marked by a deep concern on the part of adult groups to monitor their entertainment and survey their pleasures (Spigel, 1998).

Because they promise to shape the future of childhood, conflicts over new media are to be expected. As Kirsten Drotner observes "Children and young people are prime objects of media panics not merely because they are often media pioneers; not merely because they challenge social and cultural power relations, nor because they symbolize ideological rifts. They are panic targets just as much because they inevitably represent experiences and emotions that are irrevocably lost to adults." (Drotner, 1992: 59). Our debates about children and media too, seem to oscillate between our modernist belief in the need to protect vulnerable children, and our post-modern acceptance of children's culture as an autonomous zone of children's choice and pleasure. In the midst of an epochal transformation of political ideologies we should not be surprised that our field too has become key site of struggle over the conceptions of childhood welfare. In the USA especially, the media panics have recently shaped presidential platforms, as the politics of media culture plays to a deeper struggle underlying the transitional American family caught between the modernizing state and the postmodernizing market. It is with this transition in mind that I turn to what we have learned from studying the effects of television on children's culture.

Marshall McLuhan (1964) long ago suggested that technology can have both positive and negative consequences depending on how they alter our habits and perceptions. But he went on to say that "any understanding of social and cultural change is impossible without a knowledge of the way media work as environments". (McLuhan, 1964: 26). In this paper I will outline some of what we have learned about the electronic media environment and its "impact" on the American family. I will argue that research has amply shown that the proliferation of mediated communications both contributes to and undermines children's well-being. I will focus on three particularly well documented cases of media effects: on children's educational attainment, their aggressive attitudes and behavior, and their active lifestyles. In each case we discover that the impact is neither direct, nor easily studied because they are constituted in and through children's interactions within changing technological environments -- within families, schools, and peer groups that have been altered by media. I suggest that we need approaches to researching these

impacts that recognize the receding force of state policy and the increasing complexity of social relations in the electronic household that contour the media's impacts on children.

Learning about and from Media

The early optimism about television revolved around its ability to teach children. Believing that programming content was cognitively processed as 'information', psychological researchers examined how children comprehended and learned from TV. Their method was experimental: expose children to TV programmes and test them afterwards with quizzes. Generally speaking these studies of children's information processing have confirmed that television didn't pacify and mesmerize kids: children were active and capable learners depending on their developmental and cognitive abilities and the nature of the content (Anderson & Collins, 1988). Children were savvy viewers too, quickly picking up the conventions (grammar) of TV and developing sophisticated ways of interpreting the stories -- motives of characters, contexts of behaviour etc (Salomon, 1983). TV in the schools they argued could be an effective communicator to the young, especially because of its novelty, its interesting characters, and visualization, which when combined skillfully granted TV the unique potential to make learning more enjoyable (Palmer, 1988).

The test case was Sesame Street. The CTW launched Sesame to level the educational playing field for underprivileged pre-schoolers. Although Sesame Street was an enormously popular, and indeed lucrative venture in educational television, it did not arrest the declining literacy rates among American children. Moreover research revealed that the long term educational benefits of regular watching of Sesame Street depended on parental support and encouragement, which was less frequent in precisely those homes that Sesame targeted. (Lesser, 1974)

Subsequent researchers acknowledged that television in the home could both contribute to welfare of children by promoting learning, and sidetrack children's developmental projects by distracting them from school work and reading. Huston and Wright's longitudinal Topeka Study conducted between 1981 and 1983 followed two "cohorts" (consisting of several hundred children 3-5 and 5-7 year olds) through a two year period in order to see what actually happened in the home. They tracked each child's television use by 1-week diaries gathered every six months, as well as undertaking interviews and monitoring parental viewing too. The major purposes of this longitudinal field study were to identify patterns of "developmental continuity and change in children's early television viewing "and to discover how those patterns are "related to family environmental influences and to children's cognitive skills and social behavior" (Huston & Wright, 1996: 38). Their study took account of: 1) the diversity of content and the variations in children's patterns of media use 2) the developmental sequences underwriting children's media use as a cognitive active 3) and the family patterns of regulation and media use in socialization of young children (Huston & Wright, 1996).

A similar field experiment was conducted beginning in 1990. The team tracked two cohorts of 240 slightly younger children (2 and 4 years of age) for a four year period. In addition to diaries, this study employed telephone daily use surveys, interviews with parents and children concerning media use as well as gathering measures of vocabulary, school related success, knowledge about emotions, and teacher's expectations of success. Children's programme preferences are established very early in life, are gendered, and continue as their thinking and understanding grows more complex. Yet particularly for younger children, a large amount of viewing is of

programming often chosen by adult members of the family. When they go to school, the total amount of time that children watch decreases -- but so does their interest in educational programming . Cable in the home also impacted program choice by increasing the range of cartoons available and diminishing viewing of educational productions. Their audit of home viewing revealed that whereas younger children develop an early passion for cartoons , they also develop an appetite for drama with more complex plots, sports, sit-coms and crime shows so that by 10-12 years the dark and cynical Simpson's and the romance themed comedy like Seinfeld, become perennial favorites. .

These researchers also showed that, while they are young, watching Sesame Street can support the acquisition of reading skills in families where there is parental encouragement across social strata -- but not in families that don't encourage their children to learn from TV. Family support for educational viewing early on improved the child's reading and vocabulary at age 7. The slower acquisition of literacy is also contingent on whether parents read with children or provide them with books. In families where kids were left to watch cartoons, and provided no other support, children showed the effects of TV with reduced vocabulary and reading scores. Huston claims "these demographic variables appear to affect the child through the parent and the kind of environment the parent supplies for the child" (Huston & Wright, 1996: 46) They go on to note that "parents own viewing habits and preferences are a powerful source of modeling and that "those families that provide more guidance and regulation have children who watch and benefit from educational programmes." These researchers suggest the family must be understood as the "core socializing force" mediating televisions effects on children.

During the late 1970's it was becoming apparent that for most children commercialized television in the home was having the opposite effect proposed by the educators. Critics like Neil Postman argued that TV undermined 'literate childhood' :

"my argument is limited to saying that a major new medium changes the structure of discourse; it does so by encouraging certain uses of the intellect, by favouring certain definitions of intelligence and wisdom and by demanding a certain kind of content .. in a phrase by creating new forms of truth-telling. .. I believe the epistemology created by television not only is inferior to print based epistemology but is dangerous and absurdist." (Postman, 1985: 27).

There is no doubt that the 'epistemology' of TV culture proved very attractive to kids who happily spent 2.5 hours daily with the idiot box. Yet the problem with TV may have less to do with what they learned while they watched than what they didn't because they watched. Although many (including myself) would critique Postman as a modernist moralizer, a bad researcher with a hopelessly overstated position on media effects, the claims he makes about television's impact on literacy have been confirmed repeatedly by research. There is a robust relationship between heavy TV viewing and lower educational attainment that has been demonstrated around the world. A series of studies in the USA, across Europe, and in Sweden have all confirmed the persistent relationship between excessive TV watching and declining student achievement in reading, math and overall grades. Heavy TV watchers simply did not achieve reading and math skills similar to their classmates. Here we can see the result of one study of 24,000 USA students between the ages of 8-16. (US Office of Education).

chart # 1

But the same result has been found around the world. For example Rosengren and Windahl (1989) reported evidence of a very similar relationship between television and school achievement in Sweden. They note that this process is due to a complex feedback system that is established between media use, home and school which "starts a vicious circle; few preschool children's programs, more preschool and school fiction -- worse marks -- more routine motivated TV, fewer informative programs in Grade 5, more fiction and children's programs - worse marks in Grade 6". (Rosengren & Windahl, 1989: 225) These studies were undertaken before cable and satellite technologies saturated Swedish children's television diets with lavish helpings of commercially produced children's programming and advertising.

In an unique study of media effects Tannis McBeth Williams spear-headed a longitudinal field experiment to track what happens in families and communities with the introduction of television. British Columbia, by a fortuitous set of circumstances afforded an excellent natural experiment. Due to the mountainous topography some mid-sized communities in this province had been buffered from the on-slaught of television. One of the communities, which the researchers called Notel had been without television reception at all. A similarly sized and situated town, Unitel only had the national broadcast signal (CBC) creep into their valley. Both of these communities were poised to receive new transmission towers that would bring both private Canadian network (CTV) and the three American networks which were already available in the neighbouring community called Multitel. Recognizing the passing of this historic moment a team of researchers surveyed family members and gathered other relevant data from the communities before television arrived. Two years later they returned to each of the communities for a second data gathering session, and the results of this study were published in 1986 (Williams, 1986).

Their rather comprehensive account dramatically documents the effects of media on school performance - especially reading, on aggression and on community leisure. Reading scores two years after the introduction of television declined in Notel, but not in the other communities. But this design was most unique because it enabled the researchers to measure 'displacement effects' in context to explain why television slows "down the acquisition of reading skills". The trend is weak, but persists when I.Q. is controlled. Williams explains that for "At least for some children, time spent with television probably displaces reading practice". But displacement is not uniform and depends on both intellectual capacity and family mediation: "brighter students probably move on to reading for pleasure more quickly and families of higher SES are more likely to emphasize print as a medium for learning" (Williams, 1986: 71). This is why television is important in the early school years when time spent with television has greater potential to influence school achievement, especially for less intelligent or motivated children who require additional reading practice and parental encouragement for this activity (Van der Voort & Beentjes, 1997). More often than not, these slow readers are boys.

Television and the Socialization of Aggressive and Anti-social Behaviour

One consequence of media panic is that it stimulates research. Nowhere is this more evident than in the case of violence. The Surgeon General's first report on media violence issued in 1972 added a scientific clang to the alarm bells that were already ringing about rising rates of violent crime as the baby boom entering its oedipal rebellion phase (Comstock & Rubinstein, 1972). If television was such a powerful tool of learning, what were kids learning from

watching those high action police dramas that seemed to be their preferred entertainment at home? Content analysis had revealed that North American children's media were consistently filled with programming which emphasized, and sometimes celebrated the use of force, revenge and anti-social behavior (Gerbner, Gross, M, Signorielli, & Jackson-Beeck, 1979) (Wilson et al., 1998). Viewing surveys repeatedly found that children, but especially young males, preferred the most violent cartoon and action adventure programmes inadvertently exposing themselves to thousands of symbolic slayings and fights each year (Wilson et al., 1998). Yet as the industry maintained, was violence on television simply entertainment -- a good story enjoyed by children but one that didn't harm them? Psychologists sought to explain how the representation of violence in media contributed to violence in society.

Children's researchers explored this issue in a number of ways -- by comparing rising crime statistics in America with other countries (with less violent media), by studying the correlations between TV watching and aggressive behavior, and notably in the laboratory, where an experimental approach set out to measure changes in the behavior of children exposed to violent shows or films. Since the problem seemed especially acute for the very young, many of the experiments used cartoons such as the *Road Runner* as a stimulus. By carefully viewing children's behaviour after watching, they hoped to demonstrate whether watching 'symbolic violence' increased the likelihood of aggressive attitudes and behavior, or, as other psychologists maintained, whether the imaginary participation in violent fantasy might reduce aggressiveness through a cathartic psychological release of pent up emotions and frustrations.

Early laboratory experiments hypothesized that since aggression was 'provoked behavior' that it was necessary to create feelings of anger and hostility as the pre-conditions for subsequent violent behavior. Aggression was largely understood as a complexly motivated behaviour -- an emotional response to a 'threat' to the organism which caused feelings of anger, frustration and hostility. To the degree that watching violence generated arousal, television could stimulate or 'dis-inhibit' latent aggressive behaviours. Zillman articulates three aspects of the aggression drive that could be impacted by viewing: the dispositional component which is the propensity to 'act' aggressively, the excitatory component which is a function of the physiological arousal state induced by the perception of provocation or threat; and the experiential component which is the cognitive or attitudinal processes through which the individual recognizes and interprets their own arousal, the situation and the appropriate response to the provocation. Zillman's research suggested that it was important to map the "excitation transfer" on these three components (Zillmann, 1978). A number of behavioural measures of aggression were developed including fighting, attitudes, self-reports of feelings of hostility/ anger, physiological states of arousal, and the disruptive social interactions and play behaviors of children (for example hitting a Bobo doll) or administering punishment to a recalcitrant or hostile confederate through pressing a shock button. But in the laboratory, one had to assume that one show was sufficient and that the emotional effect would last for a short duration after the exposure.

It is with regard to the cognitive component of aggressive behaviour that psychological researchers also argued that watching violence might 'cue' subsequent aggressive thoughts and behaviours, making individuals more angry and vengeful in subsequent situations. (Berkowitz, 1964) Frustration and provocation created conditions which also elicited aggressive cognitions: media enactments supplied the cues that facilitated the formation of mental representations of behavioral responses to situations. Aggressive behaviour therefore is better understood as a 'learned

behavior' in which the "construction, consolidation and priming of aggressive thought networks" increased the likelihood of aggressive responses. Learning aggression was a matter of strengthening associations between certain kinds of situations and certain kinds of responses. What mattered was what the child learned while watching, not how watching made them feel.

Other researchers argued that television simply taught children to imitate the aggressive behaviours they encountered in their media. Widely influential in this way of thinking about television was Albert Bandura's social learning theory, in which he argued that children modelled their own behavior on that of fictional characters they encounter in the media -- an effect that was enhanced by the processes of identification. (Bandura, 1973). Modelling had to be understood as a complex social learning process. Since multiple factors influence the outcome, not all children will respond identically to the same program. Identification accentuates the processes of learning: to the degree that children like aggressive characters and want to be like those characters, then the learning of aggression would be facilitated. To understand the long term effects of TV, we needed to more closely examine who children identified with, and what kinds of role models they incorporated into their own self systems.

The early research on violent media provided far from definitive proof that watching television was a major factor in cultivating aggressive feelings, attitudes and behaviors in children. The limitations in the application of laboratory research results to the study of consequences of mass mediated aggression are obvious: it assumed that watching one video or playing a game would produce an emotional effect instilling and justifying feelings of hostility and anger that would then be directed against the both animate and inanimate objects. Yet even among younger children, there were only marginal main effects, and mostly on rambunctious play behaviors or verbal expressions. The point is that fighting, punching and kicking is a rare behavior in both primary schools and labs. Moreover, exposing children (who watch 3 hours normally every day) to one 10 minute episode of the Road Runner in a lab setting might hardly be expected to put children in a rage. It was not clear that watching fictional and especially cartoon violence always produced feelings of hostility (instead of general 'activation' or pleasure). Nor was it always true that control subjects would not feel, angry or frustrated for other reasons such as disposition, gender, or mood state.

Researchers acknowledged that from the scientific point of view the evidence from laboratory research is inconclusive. Nor is it clear to what extent the causality is unidirectional. Goldstein notes: "The reasoning underlying this research is that exposure to violence activates aggressive associations and images. These in turn heighten the preference for further exposure to violence." (Goldstein, 1998: 59). Jukes and Goldstein (1993) have shown that boys develop such preferences for aggressive toys and games quite young. "Highly aggressive boys find war toys more appealing than other toys - and prefer violent sports films and video games and television programs" (Goldstein & Jukes, 1993). Ehron cites similar evidence from longitudinal studies of the development of aggressive disposition to explain the effects of television on some boys. He states " consistency supports the contention that aggression is a personality trait that characterises the individual over time and across many situations". The effects of violence would therefore be expected only among heavy users of violent media - where long term effects would be strongest -- namely young males. (Eron, 1996). In one hallmark longitudinal project, Huesmann (1986) reported on 600 youths studied over 22 years. This study found that criminal acts at age 30 correlated with both the total amount of time of television viewing watched at age 8 and a preference among boys, for violent television (Huesmann, 1986). "The combination of

extensive exposure to violence coupled with identification with aggressive characters was a particularly potent predictor of subsequent aggression for many children" he argues (Huesmann, and, & Podolski., 1996: 185). As Huesmman et al more recently points out, "The relations are not statistically large but they are robust, replicable and large enough to generate social concern." (Huesmann et al., 1996: 181).

Insert charts (Huesmann, Lagerspetz, & Eron, 1984)

The process of becoming aggressive and anti-social are complex. Researchers acknowledge that aggression is not due to TV alone: "the existing research suggests that childhood aggression is often a product of number of interacting factors" (Huesmann et al., 1996: 183). Over the child's life course, aggressive and anti-social behavior is also correlated with lack of self concept, poverty, broken families which are also predictors of anti-social behavior, crime and aggression. Yet the cumulative evidence of a series of cross cultural studies supports the idea that habitual aggressive behavior emerges early, especially in boys, when television's contribution to aggressive disposition is potent. "In most countries the more aggressive children also watched more television, preferred more violent programs, identified more with aggressive characters and perceived television violence as more like real life than did he less aggressive children". These longitudinal studies induced researchers to pay closer attention to the relationship between television viewing and other factors associated with aggressiveness. As Ehron notes "an environment full of deprivations, frustrations and provocations is one in which aggression is frequently stimulated". For many boys watching violent TV or video games is simply a typically male pleasure. Yet within highly stressed families, media can interfere with the formation of "the children's self -regulating and internal standards for behaviour". As he goes on to explain, a "child with weak or nonexistent internalized prohibitions against aggression or one who believes it is normative to behave in this way, is much more likely to use aggressive scripts". (Eron, 1996: 144).

There is a growing group of researchers who include media within the analysis of the postmodern family and its problems. (Kline, forthcoming) because it is important to understand how changing family practices impact on children's use of action toys, violent television and video games. The Singers have noted that for very young children, family discipline style, as well as encouragement of the imagination, can be important influences mediating the effects of TV violence on judged aggressiveness and activity levels of children (Singer, Singer, & Rapaczynski, 1984). The work of Abelman has noted the differential impact of inductive and sensitizing family styles on gifted vs. emotionally disturbed children's judgement of "pro-social television content (Abelman, 1990). Desmond et al suggest that "Although all children are exposed to aggressive behavior in the home or through media, families differ in self-restraint, comments about aggression, or in discussions of alternative behaviors(Desmond, Singer, & Singer, 1990). Several researchers have examined how parental mediation influences viewing preferences, identification, and assimilation of violent and fearful media content (Adler, Lesser, & Meringoff, 1980)(Rose, Bush, & Kahle, 1998). Others have noted that restrictions, monitoring, co-viewing and verbal intervention on the development of media consumption habits can play a role in the socialization of aggression (Korzenny, 1977)(Greenberg, Ku, & Li, 1992)(van der Voort, 1997)(Valkenburg, Krmar, & de Roos, 1998). Recent research has confirmed that one of the most significant predictors of aggressive disposition is the way parents encourage, channel and restrict children's active media use (Austin, Bolls, Fujioka, & Engelbertson, 1999)

Electronically Mediated Lifestyles

Constructive play has long been sanctioned as the work of modern childhood, and Americans particularly were proud of the sports and culture resources they provided for post war children to meet, talk, learn, create and play in. Yet television, because it absorbs time that could be spent in other activities, not only lured kids from books, but precipitated a significant change in their active lifestyles. Williams and Handford's examination of public records in Notel provided some evidence that television did impact on children's community participation which "fell significantly following its arrival in Notel". "Television" they reported "apparently has little if any impact on the number of community activities available, but it has a noticeable negative effect on participation in those activities". They go on to argue that it is not a matter of substitution but that "television affects the structure of leisure" and this "negative impact was greatest for sports, and the effect was stronger for youths than for adults." (Williams & Handford, 1986: 183). This change in children's play culture is especially noted among school age children, who as Tom van der Voort notes are more likely than Dutch children to trade off active 'play time' for 'television time' (van der Voort, 1997).

Insert chart. #.

The observation that TV especially disrupted children's active play cultures is perhaps America's longest standing concern about media effects. To the degree that watching replaced healthier forms of active leisure and sports participation -- and pummeled children with advertisements for soft drinks and high fat snack foods -- television seemed to constitute a risk to public health. Americans were so concerned about this issue, that during the 1960's Kennedy administration launched school fitness programs to allay the risk of television to children's well-being. It didn't work. Although the US wins gold at the Olympics it is not surprising that 40 years after this fitness panic, sedentary lifestyles have made obesity the most costly youth health issue in America. Over thirty-two percent of the US population is categorized as obese (that is 30% more than the healthy body weight). And the number of obese children has recently increased by 60% in the last 7 years.

I have elsewhere suggested that a number of factors contributes to these lifestyle changes. Time pressures on families mean that many stressed parents "have little time to devote to traditional family activities". One result of a mean world view is that urban neighborhoods now seem too intimidating to allow the 'free-ranging' street life of a previous generation of children. (Kline, 1993). And with public subsidies discontinued by conservative governments, leisure resources can cost a considerable amount. In Canada, active leisure is now a class privilege: Families earning \$80,000 or more have a 73% participation rate whereas those earning less than \$40,000 have a 49% participation rate in organized sporting groups. Children of middle class homes who are themselves active, are 13.3 times more likely to play organized community sports than non active poorer ones who spend an increasing amount of their free time at home, alone with TV and video games. (Globe and Mail 1999/ Statistics Canada)

It is not surprising therefore that research indicates a fairly strong correlation between body fat and amount of TV viewing among American children. (see fig 1) Individuals who watch lots of TV, especially females, also are more likely to be grossly overweight. The mechanisms might have to do with the heavy advertising of unhealthy food products, or with the displacement of healthier and more active lifestyles by less physically demanding ones in a downward spiral of lethargy (VandenBulck, 2000)(Andersen, Crespo, Bartlett, & Pratt, 1998b)(Stafford, Wells, &

Mary, 1998)(Andersen, Crespo, Bartlett, & Pratt, 1998a)(Moreno, Fleta, & Mur, 1998). But whether unhealthy individuals find it easier to veg out in front of the screen, or whether the media displace healthier leisure and play activities TV is a factor in their difficulties maintaining a healthy lifestyle. In either case the consequence is the same: Those successfully learn to manage their viewing cost the welfare state less in terms of health system expenditures. Overweight individuals suffer from a number of health complaints and complications, including heart disease, diabetes and susceptibility to infections.

New Media and Postmodern Households

The postmodern family is often characterized by a shifting demographic, absent and permissive parenting, by parental conflict and separation, single parent households, and constant stresses on parental time and attention (Winn, 1977)(Dorr, Kovacic, & Doubleday, 1989)(Kincheloe & Steinberg, 1997). Thornton & Freedman (1983) state that by 1982, with "49% of married mothers with children under 6" in the work force televisions' role as a babysitter in home and preschool was being increased (Thornton & Freedman, 1983)(Andreasen, 1990). Van den Bergh (1999) has also demonstrated the psychological role of media for children's assimilation of and adjustment to family conflict (Van den Bergh & Bulck, 1999). Multiple set homes have become the norm because this accommodates diverse taste and helps reduce adult child conflict over program selection and viewing (Brody & Stoneman, 1983)(Wright, Sheldon, & Cupitt, 1994).

As Bryce and Leichter (1983) suggest even the location of various media in different spaces may contribute to the child's ability to choose and view programs freely and "therefore what is learned from the medium" (Bryce & Leichter, 1983). Huston-Wright notes that siblings, family conflict and peer relations all play a part in the modelling of media use. In many American households television is left on, or even very young children encouraged to pass time watching while parents are busy with household chores or working (Huston & Wright, 1996) (Medrich, 1979).

Changing conditions of family life have prompted many media researchers to seek a broader appreciation of the socio-ecology of the media saturated household, including the new technologies and practices that characterize the apparent diversity of postmodern family life (Atkins, Greenberg, & Baldwin, 1991). Livingstone and Gaskell (1996) argued, given the inundation of new media, it was time to take a closer look the child's use and experiences of this new media environment. They suggest an integrated research paradigm which has four characteristics: interdisciplinarity, an emphasis on context, a multilevel theoretical framework, and a multimethod research design (Livingstone & Gaskell, 1996: 306). In many others' view too, the study of children's 'new media' consumption should devote pay attention to the interactions among multiple contextual factors including the children's perceptions, the child-parent relationships, the gender and family composition, and parenting styles including modeling, regulation of media use (Pinon, Huston, & Wright, 1989)(Valkenburg, Krcmar, Petters, & Marseille, 1999).

And the Himmelweit Project data has revealed, that just as in the 1950's with the introduction of television, the circumstances of childhood are once again being disturbed by new media - from cel phones to computer games. These digital age kids have access to a wider variety of media than ever before, including CD players, radio, videos, movies phones, TV, video games, books, comics, magazines and computers. Media preoccupy postmodern children from a very early age -- whether in Denmark, Britain or the USA, the average teen spends 5 hours per day using one or

other of these entertainment devices (APPC: & Gridina, 1999) (Livingstone, Holden, & Bovill, 1999). Numerous studies have provided evidence that gender is a factor in the socialization of aggression, the acquisition of play styles, in the preferences for media, and in the assimilation of media content (Singer et al., 1984) (Valkenburg et al., 1998) (Goldstein, 1998) (Groebel, 1999a). Evidence is growing that the gender divide is even more important in children's enjoyment and use of new media like the internet and video games (Kline & Banerjee, 1998) (Kline, 1997). In Denmark where computers are available in two thirds of households, there are persistent differences in access to new media and use across classes. Jessen recently argued that there was an emergent "computer culture", but it was primarily among boys -- based on their expressed fascination and facility in digital communication at school. (Jessen 199).

But a closer look at what is happening in the digital household reveals that although many youths have gained access to interactive media, television has remained an essential part of growing up postmodern. The Himmelweit project reports that "almost all 6-17 year olds (99%) watch *television* in their leisure time, and on average spend two and a half hours almost every day in front of the screen". (Livingstone & Bovill, 1999). Permissiveness in European families, coupled with the increasing number of families where television is constantly on encourages children to use media as a way to relieve boredom. They go on to state that "1 in 5 children wake up to find (the television) already on, 1 in 3 find it on when they come home from school, and 2 in 3 say it's still on when they go to bed". The duration of TV viewing is consistent across countries, and barely lessens even when other forms of media are available. The Annenberg researchers found a similar trend in the US: Children seem to be spending more and more time with media generally, but not a lot less with television (Jordan, 1999) (APPC, 2000). Indeed, in my own research heavy video gamers watch more TV on average as well (although not heavy girl gamers); what they sacrifice is peer time and most of all books (but again not the girls).

Insert Data

On close scrutiny studies of the media saturated family have uncovered one important change. The living-room TV -- once the focal point of familial togetherness -- has given way to what Livingstone et al. (1999) call a "bedroom culture" where children have access and control over their own media use as never before (Livingstone & Bovill, 1999). In 1997, over 64 % of Danish children have TV in their bedrooms, and 32 % have computers, but this privilege grows with age. These figures are roughly comparable to the US where by the spring of 2000 60% of teens had TV's in their bedrooms. Livingstone and Bovill (1999) go on to suggest that this migration of television to the bedroom is making media use increasingly difficult for parents to monitor or regulate. Moreover, American parents (Sneed & Runco, 1992) and Australian parents (Cupitt, 1996) are less controlling of their children's new media use than they were of television. My own recent survey of Canadian youth found this to be true too. Boys are less controlled than girls, and those without restrictions are more likely to play more violent video games, read less and watch TV more.

Insert data.

CONCLUSION

Although research has shown that television was capable of contributing to children's education and enlightenment, in many countries it has reduced literacy, increased the tolerance of aggressiveness, and interfered with children's active leisure. If this technology was to be more positive force in children's lives, it required sizeable public investment and determination to achieve such an impact. North Americans at least, have backed away from this challenge of media literacy and public television..¹ Instead, with their gaze fixed on the information highway, they have invested over \$156 billion dollars in computer technology for the schools -- a sum that would have produced enough high quality educational television to fill US screens for the whole decade.

In spite of the heavy dose of information age rhetoric, public uncertainty about this investment in interactive media continues to grow. Originally worried that girls were being ignored and insulted by the mass media, more and more critics realize that boys, because they are most enthusiastic about computers and video games, may bear the brunt of their cultural impact. Dave Grossman author of On Killing has emerged as this generations leading critic of the new media industries arguing that "Most of all, the American people need to learn the lesson of Jonesboro. Violence is not a game; it's not fun; it's not something that we do for entertainment. Violence kills and maims. Every parent in America needs to be warned of the impact that TV and other forms of violent media have on their children, just as we would warn them of some widespread carcinogen. The problem is that the TV networks, which use the public airwaves we have licensed to them, are our key means of public education in America". (Saturday Evening Post, 1999).

A growing debate about the implications of this electronic environment for kids has brought new media industries into the public spotlight -- for the same technologies that enable ICQ chat rooms also enable cyber-stalking, the same search engines that provide access to Britney Spears websites also access pornography, and the same computer that facilitates homework also provides access to Soldier of Fortune on-line. For this reason, advertising to children on the web has been regulated, the video game industry has been called on the carpet for promoting violence (FTC, 2000), and the use of computers in schools has also been challenged for being an ineffective waste of money that channels funds from teachers and books (Cordes & Miller, 2000). It will increasingly fall to researchers to sort out the complex issues that will determine whether new media will promote or diminish a healthy childhood. It's a good time therefore to remember what we have learned from 50 years of children's television.

¹ Actually, the recent children's television act has done more to change the face of children's television in the states by requiring commercial broadcasters to air three hours of educational programming in their schedule. Schmitt notes: "While there are many successes of the Three-Hour Rule, .. it does not appear that the full potential of this medium as a teaching tool has yet been realized". (Schmitt, 1999 #208: 27)

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