

THE VIDEO GAME LIGHTNING ROD

Constructions of a new media technology, 1970–2000

Dmitri Williams

University of Michigan, USA

Abstract

New media technologies have long tapped into social hopes and anxieties, and the turmoil that follows their appearance offers a window into the social tensions of the time. Clashing sets of utopian and dystopian visions have typically resulted in an ambivalent portrayal of such technologies. Video games prove to be no exception. Through a content analysis of media frames in the USA's three leading news magazines, the reception and presentation of video-game technology was tracked over a thirty-year period, 1970–2000. The resulting patterns tell a story of vilification and partial redemption, owing to the mainstream acceptance of the medium and the aging user base. Fears of the negative effects from the new technology were hypothesized to come from a routine set of conservative worries. The results support this hypothesis. Moreover, the frames surrounding games, especially in the 1980s, reveal many of the key social tensions of the times, primarily those surrounding gender roles, the separation of age and racial groups, and the role of female parents within an increasingly technological society. The place of video games within the larger context of media history, and the social causes of the frames are discussed.

Keywords

Video games, media frames, media history, content analysis,
frame analysis

INTRODUCTION

By any benchmark, video games are now a highly popular and profitable medium in the USA. But with the exception of violence effects studies on children, and some recent work on gender and identity in gaming, the video-game industry – which in 1999 equalled motion pictures in domestic revenues (Graser 2000) – remains largely ignored by communication studies scholars. Studies by historians and sociologists are also notably absent. To date, the only historical accounts of video games have come from journalists and hobbyists (Herman 1997; Sheff

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1999; Kent 2000; Poole 2000) and focus on industrial history. Beyond the details of corporate practices lies an undiscovered social history and a story of vilification and redemption that echoes that of many earlier new media technologies.

One key component of such a history is an understanding of how this new technology was represented in the popular consciousness. Games, like most new media technologies that preceded them, have been touchstones for a vast array of social hopes and fears. Their initial foray into the public spotlight seems at first to be a confusing amalgam of ambivalence, but, as deconstructed here, it illustrates the simultaneous utopian and dystopian visions that typify a new medium. Understanding these representations tells us not just about the particular technology in question, but about how we look at all new media technologies. And, as a touchstone for social issues, representations of the nascent medium provide a window to view the socio-political climate. If the *tabula rasa* of the new technology is quickly covered by social anxieties and aspirations, we can learn much by looking at those coverings. In the case of video games, the framing of the new medium was powerfully affected by a new conservative movement, by emerging tensions over families, and by the blurring of age and gender boundaries over the past thirty years (Meyrowitz 1985). Ignoring these social factors, or pretending that they are not there, limits our ability to understand new media clearly. Instead, this article unpacks those social influences, tracks them in media coverage over time, and places the resulting patterns in the context of media studies and the socio-political moment in which they occurred.

NEW MEDIA IN THE SPOTLIGHT

The story of how games emerged, were quickly vilified and then earned some measure of redemption is part of a larger history of new media technologies. Previous media have encountered a consistent series of utopian and dystopian reactions to new technologies, often simultaneously. Over several cases, we have begun to see consistent patterns in these reactions. One commonality has been that in each case, the technologies tapped into tensions particular to the era. For the nickelodeon, it was powerful class tensions that even erupted into riots in major cities (Gabler 1999). For the telephone, it was dramatic changes in lifestyle and social activity (Fischer 1992). For both film and television, it was fears about delinquent children (Lowery and DeFluer 1995). For radio, it was a major change in attitudes about race and sexuality (Douglas 1999). Starting with film, each case lead to a major series of social science-based media

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studies to determine what effect the newfangled technology was having on the unsuspecting populace, most frequently on children (Lowery and DeFluer 1995). Video games were no different.

Another pattern has been the ambivalence reflected by simultaneous utopian and dystopian visions. On the utopian side, new media technologies have been seen as a way to transcend nature, add convenience to daily life and spread egalitarian, democratic values in a kind of software and hardware socialism – all classes and groups are equally empowered by the new technology (Czitrom 1982) in a ‘global village’ (McLuhan 1964). Even cultural critics have seen the utopian potential in what they consider the most ideological and degraded media (Jameson 1979). On the dystopian side, new media are suspected to be morally bankrupt, poisonous to participation in a democratic society, and to have created new stresses and inequalities that had not existed before (Neuman 1991).

The questions here, then, are what fears and hopes the advent of video games tapped in to, and what representations of games can tell us about the time in which they emerged. While there is no theory about the hopes and aspirations that new media systematically arouse, there is guidance on the negative side of the ledger. According to Wartella and Reeves (1983, 1985), media coverage and subsequent research has followed a three-wave pattern. First, fears emerge out of concern that the new medium might be displacing a more ‘constructive’ activity, ironically often the use of a previously feared medium (Wartella and Reeves 1983). Then fears of health effects appear, followed by fears of social ills. Another complementary theory suggests that there is a conservative political component to these fears, especially the ones about negative displacement of children’s time. Ofstein (1991) has described this kind of thinking as the ‘River City’ effect, referring to the fictitious townfolk of River City in the musical *The Music Man*. As this thinking goes, if children weren’t wasting their time with the useless new medium, they would be doing something more valuable, like reading classic literature.

SETTING THE HISTORICAL TABLE

Before engaging in an analysis of video games, it is helpful to have a basic understanding of that industry’s major events over the last thirty years, and a socio-political backdrop. A quick summary of the industry might proceed as follows.

Video games burst onto the mainstream American scene in the late 1970s and early 1980s, endured a spectacular crash, and then re-emerged to become

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a mainstream media industry in the late 1980s and beyond (Herman 1997; Kent 2000; Williams 2002). Certainly, these facts are the backbone of a video-game history, and it is tempting to stop there – the emergence and diffusion of video-game technology are merely a series of business successes and failures, and the result of the inevitability of an innovative technology to penetrate the mass audience.

However, this would be a mistake because new technologies do not emerge from, or into, vacuums. A numbers-only analysis ignores the importance of social and cultural factors in understanding technological diffusion. Technologies emerge the way they do because of their specific historical contexts, and they succeed or fail in large part due to those same contexts (Pinch and Bijker 1999). Culture, power, class, gender and identity are as important as gears, 3D accelerators and distribution channels in understanding the emergence of new technologies, and in understanding how they are perceived by their contemporaries. Cowan (1999) points out that the diffusions of new technologies are fundamentally sociological in character, and any worthwhile history will incorporate social factors.

Certainly, one of the major instruments in the diffusion of knowledge *about* new technologies is the news media. An examination of the portrayal of a new technology should tell us what its public image was. But the media portrayal of reality and reality itself are often different. Media theorists have long been aware of the ways in which news media can affect the portrayal of the news, and a rich literature suggests that we should consider the gate-keeping functions (McQuail 1994) of media elites (Lichter *et al.* 1986) and the practices and characteristics of the writers themselves (Schudson 1978; Gans 1980; Hall 2000) as important influences in the dissemination of news.

Although the news media present facts and events in a particular way as both natural and as common sense, we cannot take this depiction of the world for granted (Gitlin 1980). Gitlin demonstrated that media *frames* organize the world for journalists and audiences. Frames are ‘persistent patterns of cognition, interpretation, and presentation, of selection, emphasis, and exclusion, by which symbol-handlers routinely organize discourse’ (Gitlin 1980: 7). In looking at how something is presented to us – in this case, the portrayal of video games – we must ask ‘What is the frame here?’ and ‘Why this one and not another?’ Frame analysis helps illustrate the power of reporters to promote a particular problem, causal interpretation, moral evaluation or treatment recommendation (Entman 1993). The portrayal of science and technology is especially subject to media framing because audiences must rely on experts and journalists to make sense of new, and sometimes confusing, information (Nelkin

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1987). Nelkin notes that technology reporting is also particularly sensitive to issues of power and social norms.

Clearly then, a frame-based analysis calls for contextualization. What were the major social, cultural and demographic changes that occurred in the period in which games emerged, sank and re-emerged? In the years 1970–2000, there were several major shifts worth noting in recreation, demographics, the composition of families and in mainstream political thought. In the USA, a large number of women entered the work force, creating new time pressures in exchange for income. For families of all descriptions time became scarcer, while disposable income for leisure increased. This combination impacted leisure activities, which became ‘intense, frenzied, and compressed instead of evenly metered throughout the year’ (Vogel 2001: 8). In 1970, Americans spent 5.97 per cent of their disposable income on leisure, and, by 1999, 8.22 per cent (Vogel 2001). Cohorts also play a role. Demographically and politically, the last third of the twentieth century was dominated by the Baby Boom generation, and that group’s children entered adolescence in the 1980s and 1990s. These younger cohorts, sometimes labelled as Generations ‘X’ and ‘Y,’ have now reached maturity and exhibit leisure preferences different than the Baby Boom generation, particularly in their use of technology.

At the same time as these population trends were evolving, dramatic changes were taking place in the role of the family and in American politics. Even as economic and social conditions had begun to change what ‘family’ meant, the very notion of family continued to be an epicentre for political and cultural struggle. Divorce and remarriage, and new non-traditional forms of family challenged traditional, previously fixed concepts as promoted in official discourses and in media representations (Chambers 2001). And yet, at the same time, the 1981 Reagan revolution marked a key historical moment when conservative forces swept to power in American politics. In a shift away from the progressive politics and gains in the women’s movement in the 1970s (Wandersee 1988), conservatives questioned the morality of non-traditional family types, and called for a return to earlier times. News media increasingly served as a conduit for anti-feminist, and often anti-mother, rhetoric in the 1980s (Faludi 1991), and, despite real gender progress in news rooms, journalism continued to be a profession dominated by men (Byerly 1999).

As a direct result, fears and anxieties about parentless children, irresponsible single mothers and a general decline in moral and family values permeated socio-cultural debate. Also, the emergence of other forms of electronic media – cable, VCRs, the home computer – gave rise to a new wave of fears about the influence of mass media.

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In sum, games emerged to find a public eager for entertainment, but also one struggling with social changes and particularly anxious about families and children. With this context in place, and with an eye to the patterns of the past, here are the hypotheses for the study:

- *H₁, The 'River City' Hypothesis.* The advent of a new medium will first give rise to fears of displacement of 'constructive' activities and of associations with deviant behaviour.
- *H₂, The Fear Order Hypothesis.* With the advent of video games, news frames involving children will occur in the following order: fears of destructive displacement of worthwhile activities (*H₁*); fears of negative health effects; and, then, fears about the effects of content on values, attitudes and behaviour.

In following Cowan's advice about the sociological aspects of technological diffusion, the study explored the following research questions:

- *R₁:* What stages does video-game coverage go through generally?
- *R₂:* What gender frames are presented by news media in the coverage?
- *R₃:* What age frames are presented by news media in the coverage?
- *R₄:* What other media frames occur systematically in news coverage?

METHOD

The method used was a combination of Gitlin's qualitative frame analysis with the more systematic aspects of standard quantitative content analysis. First, analytical categories and frame types consistent with the hypotheses and research questions were generated by reading through a sample of the news media coverage of video games. The frame categories covered (1) measures of the industry's maturation and legitimacy as a real business; (2) the gender and age identity of game players; and (3) utopian and dystopian visions. These frames were then included on coding sheets and counted in the sample by two coders. As an example, two of the frames described in more detail below involve age and gender. An article from 1981 entitled 'Invasion of the Video Creatures' (Langway 1990) featured pictures of young boys and an older man playing an action game in an arcade, accompanied by text describing the way both adults and children have come to enjoy the then-new fad. The coders independently found that this particular article framed gameplay as both a child and adult phenomenon, but that for gender, only males were shown

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or mentioned playing the games, and thus only the male gender frame was recorded.¹

The sample was drawn from the USA's three most widely circulated news magazines, *Time*, *Newsweek* and *US News & World Report*. News magazines convey information and imagery 'generally consistent' with other vehicles of popular culture (Nelkin 1987).² For the years 1970–2000, all articles from the three news magazines cited in the *Reader's Guide to Periodical Literature* under the following keywords were included in the analysis: video games, electronic games (until the mid-1980s), computer games, Atari, Nintendo, CD-Rom games, interactive multiplayer, Sega, PlayStation, Dreamcast.³ The sample contained 119 articles, and each was read twice for coding and once for a qualitative analysis. Scott's pi (Scott 1955) intercoder reliability scores for the coding were satisfactorily above the generally accepted standard (Wimmer and Dominick 1997): Of the thirty-one variables coded, the mean pi was 0.82, and the median value was 0.80 (see Appendix for all scores).

RESULTS

This section will address the research questions and hypotheses by explaining the individual frames in detail, providing examples of them from the sample, and showing their patterns in time series graphs. These patterns are then deconstructed.

The general evolution of coverage

*R*₁: What stages did video-game coverage go through generally?

The data in figure 1 are based on the total number of frames present per year in the coverage. This is a proxy for how much the topic was generally in the public eye. As one might expect, total coverage grew with, dropped off with and re-emerged with the financial success of video games. In the last few years, game coverage has grown substantially and remained consistent, indicating that it is becoming a more commonplace element of the general culture.

More specifically, three frames demonstrated the presence of video games as a mainstream medium (see Figure 2). These three frames are coverage of designers or producers as auteurs, a 'games as artistic' frame and a 'technical quality' frame. An index of these frames suggests how seriously the new medium

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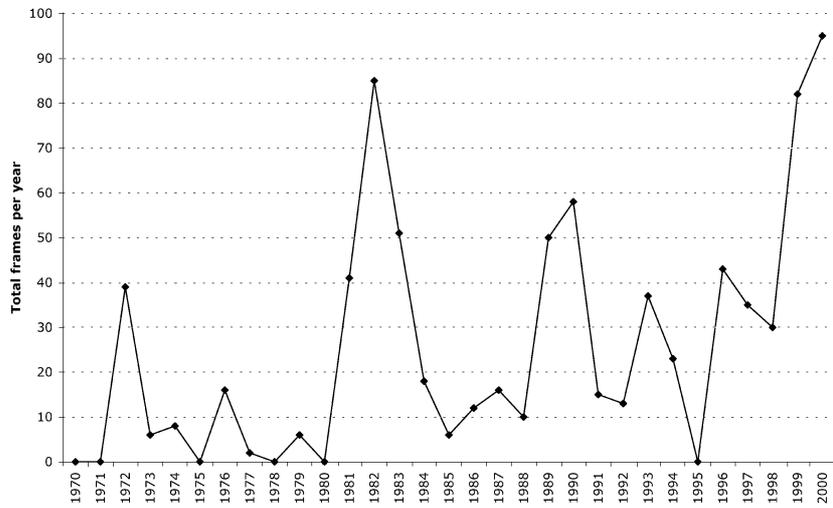


Figure 1 Total frames, 1970–2000.

is regarded as a legitimate business and a part of culture. A passing fad such as the Pet Rock would not be likely to register these frames, whereas more accepted and mainstream media like movies or books would.

Coverage of video games as a mature, mainstream medium grew steadily after the second resurgence of the late 1980s, and video games now enjoy coverage approaching that of motion pictures in news magazines. Over time,

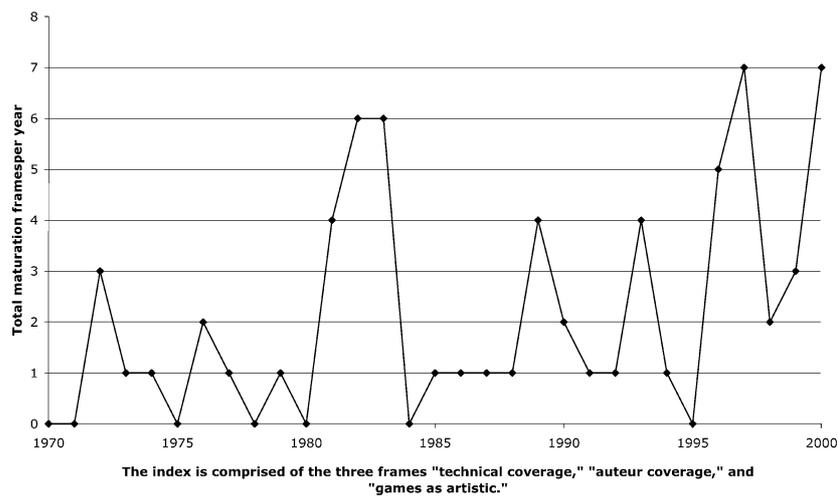


Figure 2 Maturation index.

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the coverage moved from thin accounts of a faddish new toy to more analytical and respectful accounts of games as the artistic creations of technically savvy designers. But even with this growing respect, cultural critics still suggest that games are incapable of creating artistic experience in the way movies can (Kroll 2000).

Identity frames: gender

R₂: What gender frames are presented by news media in the coverage?

The two genders were framed differently in video-game coverage. Differences were framed primarily as the result of biology, but this was awkward cover for a consistent pattern of male technocratic privilege that manifested in frames ranging from light-hearted jokes about the difference between the sexes to more serious lashing out at women. Numerically, games were framed strongly as the province of males until the mid-1990s, when several articles covered the rise in women players (see Figure 3). However, the numbers are, in general, too low for conclusions and, in articles where no gender was mentioned, maleness typically operated as the invisible norm.

General stereotypes about males and females took on the theme of the nursery rhyme that asks: 'What are little boys and girls made of?' The answer for boys is 'snakes, snails and puppy dog tails', and for girls 'sugar, spice and

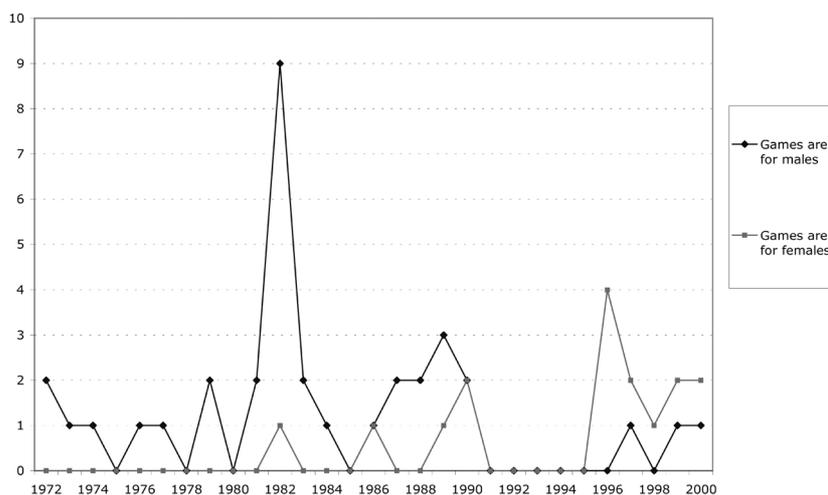


Figure 3 Who are games 'for'? Gender.

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everything nice'. In this vein, gender differences were consistently stated or assumed to be biological. Males – primarily male children in the coverage – were framed as the primary users for video games and as inherently aggressive, competitive and brutal by nature. The games themselves were also consistently coded as male. Although gender was absent in the first few stories about video games, it did not take long for a male frame to emerge. By 1976, a headline dubbed the new phenomenon 'Jocktronics' ('TV's New Superhit: Jocktronics' 1976). Twenty years later, this style of headline persisted, for example 'Boys and Their Toys' (Thomas 1996a). By the early 1980s, this male-centric framing of the technology had taken on a frame of biological determinism. The snakes, snails and puppy dog tails were implied to be natural ingredients, the results of which were hopelessly violent boys. This frame was repeated frequently during the 1980s and 1990s: 'Nintendo speaks to something *primal* and powerful in their bloody-minded little psyches, the warrior *instinct* that in another culture would have sent them out on the hunt or the warpath' (Adler *et al.* 1989, emphases added); For boys, the games satisfy a '*basic urge*' (Quittner 1998, emphases added); 'Unlike young girls, who seem to be able to take video games or leave them, boys tend to be drawn into the games at a *deep, primal level*' (Elmer-DeWitt 1993a, emphases added). Boys, unlike girls, were also described as preferring repetition and less cognitive effort in their video games (Thomas 1996b), and in being concerned with games of reflex and skill rather than intelligence and strategy.

This biological determinism was frequently combined with a hypodermic-needle media-effects frame; the violent-by-nature boys were framed as especially susceptible to the negative media effects that plague society in general: 'It is a madness that – like most – strikes hardest at adolescent boys and their young brothers' (Adler *et al.* 1989).

Early on, while video games were being constructed as the province of men, women were described as sources of strife and contention in coverage that clearly framed men as technophiles and women as ignorant obstacles. Consider the decidedly unsubtle tone of this 1982 feature article:

Women, especially if they are wives, generally resent the games, and quite often regard them with outright loathing . . . Ear-weary males, their backs welted with wifely sarcasm, may grumble that women are afraid to look foolish in public, or that they simply do not know how to play. . . . They say that women view the games as black holes, soaking up male attention, and that even liberated wives are made nervous when their male protectors act like little boys.

(Skow 1982)



Figure 4 Website advertisement, 1999. Source: *NextGeneration*.

A recent advertisement (figure 4) blends the male-centric viewpoint with the image of a beautiful woman trying unsuccessfully to seduce her man away from his game-playing machine. In the advert, the woman is simultaneously an obstacle on the road to technological mastery, a sex object, and uninterested in technology herself. Coverage of technology and video games was so male-centric that maleness became an invisible baseline; when female video-game use was discussed, it was nearly always in comparison to male use.

In contrast to the male frames, females were decidedly more filled with sugar, spice and intelligence, but often with a lack of interest in technology. For example: 'Girls rarely seem to have either the chance or inclination to get plugged in', and said one father trying to buy games for his daughter "Anytime I brought home another game, she just wasn't interested" (Greenwald 1996: 49). However, positive female frames emerged in the mid-1990s as female game developers and users sought and gained exposure. Biology was less overt in female framing, but still present. Stereotypes of adolescent girls fixated on boys and shopping persisted. Girls were also depicted as decidedly social in their game use, whereas boys were framed as isolated: 'These games, unlike the single-player games targeted at boys, are designed for crowding around the computer and playing as a group' (Thomas 1996b). Such statements simply ignore the long history of multi-player games, dating back to the original *Pong*.

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Identity frames: age

*R*₃: What age frames are presented by news media in the coverage?

The social construction of age in gaming can be examined for both adults and children, defined here as high-school age or younger. The media construction of adult use was marked heavily by social norms that the writers implied about the acceptability of adult video-game use. This construction began to change in the 1990s as Generation X entered early adulthood. Media constructions of children's game use centred entirely on media effects and social status.

The popular conception of game use as a purely child-centric phenomenon is a media construction that did not emerge until well after games had entered the popular consciousness, and home games became widespread. This is not surprising since the initial video-game boom occurred in adult spaces such as bars and nightclubs. It was not until home units first gained widespread popularity in 1981 and 1982 that adults suddenly began to be framed as shameful or deviant in their game use, and it was not until the late 1990s that this frame began to dissipate.

Adults, not children, made the first games popular (Kent 2000), and the initial coverage treated the phenomenon as a social fad. For the most part, coverage of game users was stories of professional workers seeking escape from the daily grind: 'For a mere quarter, Asteroids will turn an unassuming cost accountant into the commander of an embattled spaceship' ('The Asteroids are Coming' 1981: 62). This frame was reinforced by some game advertising.

Figure 5 shows an advertisement from 1982 that was clearly targeted at the upscale adult audience. The central figure is a professional who enjoys playing video games, especially as a way to relax after a day at the office. The ad copy reads:

After treating patients all day, Dr. Grayson puts down his stethoscope, picks up his LIGHTSABER and prepares to do battle with anyone who's up to the challenge. Maybe some day you'll be good enough to be called a JEDI MASTER too.

But by the end of 1981 and early 1982, these adults began to be framed as ashamed of their gameplay. A *Time* article provides an example by framing an attorney who plays games as shamed by his habit: 'I'd really rather you didn't use my name. This is my secret place. It would drive my wife crazy. I really don't come here very often' (Skow 1982: 53). Through a series of similar

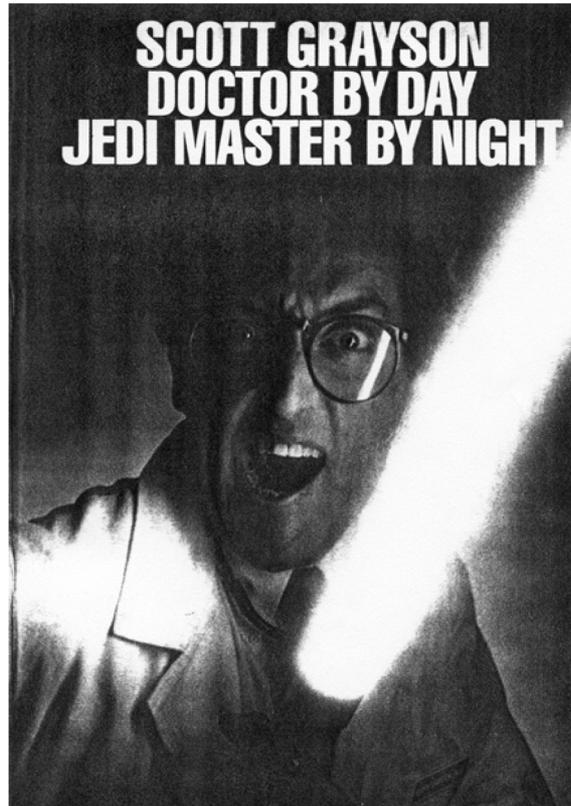


Figure 5 Parker Brothers' 'Jedi Arena' advertisement. Source: *Newsweek*.

articles, it quickly became clear that adults were no longer permitted Jedi training (see Figure 6).

Throughout the 1980s, and less so recently, there was a prevalent 'adults aren't able to understand games' frame, reinforcing games as the exclusive province of children, and adult play as deviant: 'The kids get it right away. Nobody has to tell a 10-year-old boy what's so great about video games. . . . Grownups, as a rule, don't get it' (Elmer-DeWitt 1993a: 67). And grown-ups were framed as unable to play games with the same skill as minors: 'Aptitude, however, seems to decrease with age' (Langway 1981: 91).

But, where adults were framed as furtively hiding their illicit habits in the 1980s, adults in the 1990s were seemingly able to come out of the video-games closet. This trend was probably reinforced by a transition within news magazines to younger writers for the video-games beat. Even while some older players were still framed as hanging on to their childhood longer than they should –

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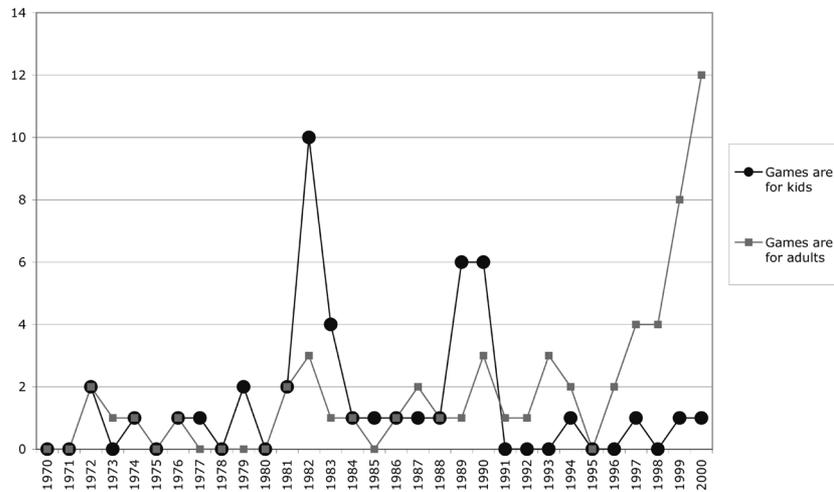


Figure 6 Who are games 'for'? Age.

'The Dad-needs-a-sports car syndrome has hit the desktop' (Thomas 1996a) – many writers began actively to resist this frame, especially for young adults. First was the acknowledgement in the late 1990s that adults once again found games pleasurable. Gradually, fewer articles (by percentage of total articles in a year) mentioned the age of users at all, a sign that game use is no longer as age coded as it was previously.

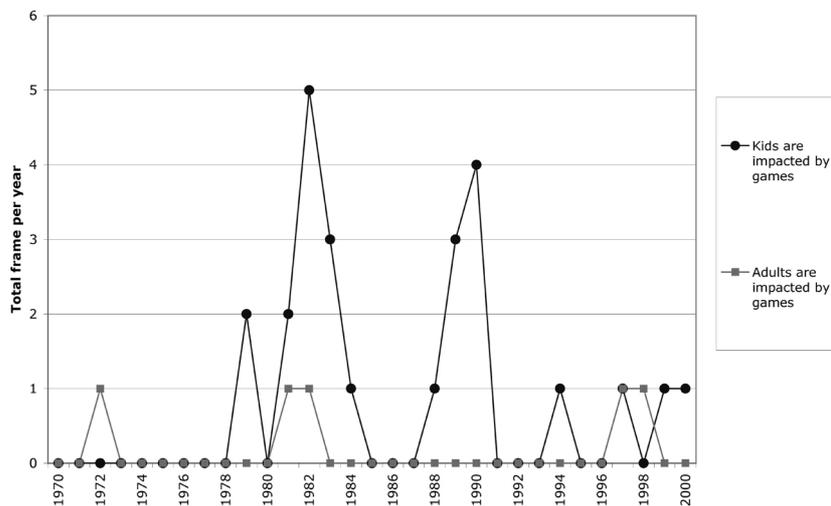


Figure 7 Effects reporting by Age.

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As with what age games are 'for', the framing around the effects of games shifted in 1981 (see Figure 7). Before the shift, children were shown either enjoying a new pastime or experiencing an improvement in social status. Initially, this was a gain in status for disenfranchised minors. An early story featured a homeless boy in Times Square able to find validation through his gameplay: 'This is my world – it stinks, don't it? When you start to think you're a loser, you come here and get 4,000 at Space Invaders, and you ain't a loser anymore' (Langway 1981: 91). Later stories focused on the high status of ace players, but, with the vilification of arcades, the ace gave way to the 'computer nerd' stereotype or the awkward boy who turned to machines because he was unable to connect with other human beings. With later acceptance of gaming, such frames decreased.

Utopian and dystopian frames: general patterns

Two patterns emerged from a general view of utopian and dystopian media frames. First, the appearance of frames followed the success of video games with waves of coverage occurring around the home boom of 1981–1982, the Nintendo re-emergence of 1988 and the PlayStation/Nintendo 64 boom of the mid-/late 1990s. Second, as will be explained below, the particular kinds of utopian and dystopian frames appeared in distinct phases.

Utopian frames: two waves

The first wave of utopian frames occurred primarily in the 1980s, and functioned as reactive, defensive frames. If, as Wartella and Reeves (1983, 1985) hypothesized, initial fears of new media centre around negative displacement and health risks, the utopian frames here seem primarily to be reactive counter-measures. Instead of keeping children out of school, games were framed as keeping them out of trouble. Instead of promoting violence, they were providing a cathartic release valve, etc. By contrast, the second wave of utopian frames is pro-active, simply celebrating the positive aspects that games bring to society, including enjoyment, intelligence and familiarity with computers.

Wave I. The four first-wave frames identified here are games as a way to improve skills, as cathartic, as educational and as a way to keep kids out of trouble (see Figure 8).

The 'physical skill' frame focused on the hand-eye coordination and spatial abilities presumed by some writers to be a benefit of games. Ace gamers

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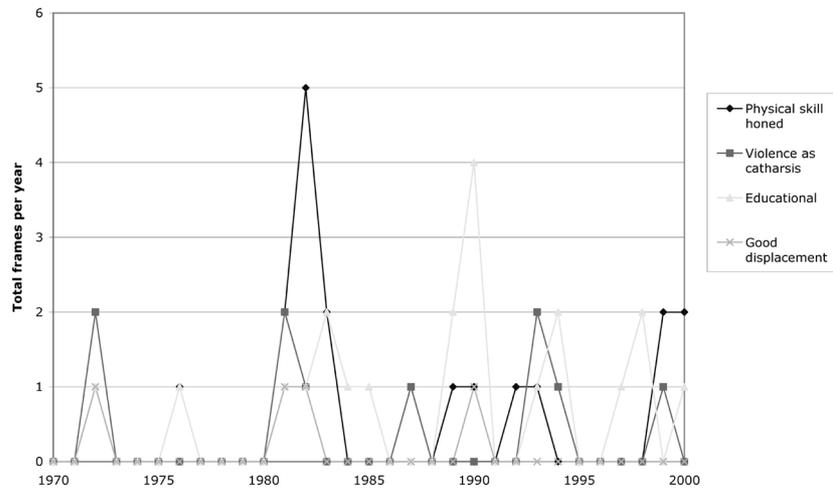


Figure 8 Utopian Wave I.

described their learning curves and fellow players spoke of how valuable hand-eye motor skills were.

The ‘violence as catharsis’ frame was common in the initial stories, most typically in reference to professional men who used games as an outlet for job stress or boredom, or to exhibit some kind of control they were denied at work. ‘You go back to the office more relaxed, partly because you have been able to control something. It’s either this or the psychiatrist’ (‘The Asteroids are Coming’ 1981: 63).

The ‘games as educational’ frame occurred frequently in coverage, but was rarely discussed in depth. Another aspect of this frame was the level of activity players had compared with their assumedly passive television-viewing counterparts.

Lastly, ‘games as good displacement’ was a common early frame that spoke directly to fears about control, space, and the role of parents as supervisors. Employed as a direct counter to River City-type fears about truancy, this early frame stressed that children in arcades were off the streets and not getting into real trouble. Moreover, arcades were initially framed as socially quite positive before their coverage became significantly negative in 1981 and 1982. Prior to this period, arcades were framed entirely as places of safety, positive socialization and even racial harmony: ‘Look at all these people together – blacks, whites, Puerto Ricans, Chinese. This is probably the one place in Boston where there are not hassles about race’ (Langway 1981: 91).

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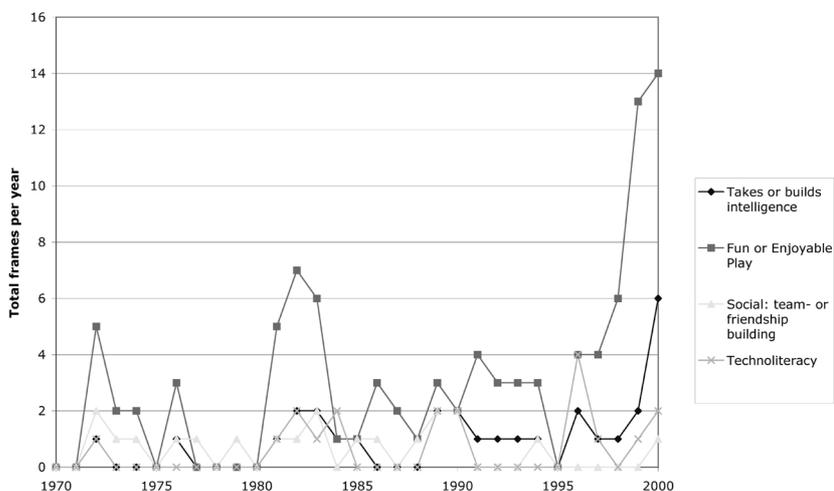


Figure 9 Utopian Wave II.

Wave II. In contrast with the first wave of utopian frames, which defensively sought to dispel fears of truancy, the second wave celebrated the medium as intelligence-building, fun, social, and an important way to empower children with technology skills (see Figure 9).

‘Building intelligence’ was a frame mentioned only in passing in stories until only very recently. The typical example was of a player learning strategies to defeat a game, more commonly on the more recent PC games than on the action-oriented early arcade or console games. The recent upsurge in this frame included a professor who used the game Minesweeper to open up a new area of mathematic problem solving that had stymied colleagues for years (Lord 2000).

‘Games as enjoyable’ seems like an obvious frame, but surprisingly little enjoyment was mentioned in early gameplay. Early on, players were described as using games to ward off anomie. But with less social stigma in the late 1990s, coverage simply showed people enjoying themselves.

‘Games as social’ was a surprisingly rare frame. One exception was male writers touting the bonding aspects of gathering and hurting each other virtually: ‘You can’t beat a console evening. Invite your friends over, gather round the TV, crack open a six-pack and get down to the serious business of knocking the stuffing out of them. It does wonders for your social life’ (Taylor 1999b: 98). But even at the end of the 1990s, adolescent boys were still largely absent from this social frame, assumedly playing alone.

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Lastly, in the ‘technoliteracy’ frame, games in adolescence were repeatedly suggested to lead to comfort and mastery of technology, often leading directly to careers in science and technology. As one editorial writer put it, ‘Games stimulate a taste for computers’ (Loftus 1984: 72).

Dystopian frames: two waves

Like the utopian frames, the dystopian frames also occurred in two distinct waves over the 1980s and 1990s. The types of frames that occurred within these waves, and the order in which they occurred, support the study’s two hypotheses.

H₁, the ‘River City’ hypothesis was that the advent of video games would first give rise to fears of displacement of ‘constructive’ activities and of associations with deviant behaviour. These negative displacement frames were among the first to emerge in coverage, and took place most heavily in the first wave. Notably, several stories actually used the same River City analogy in describing the reactions of town elders to arcades.

The first wave consisted of four frames: bad displacement, health risks, theft and drug use, and occurred primarily in the early 1980s (see Figure 10). ‘Bad displacement’ is a direct test of the Ofstein hypothesis. In this frame, adolescents are seen as wasting their money, which would be better spent on some more

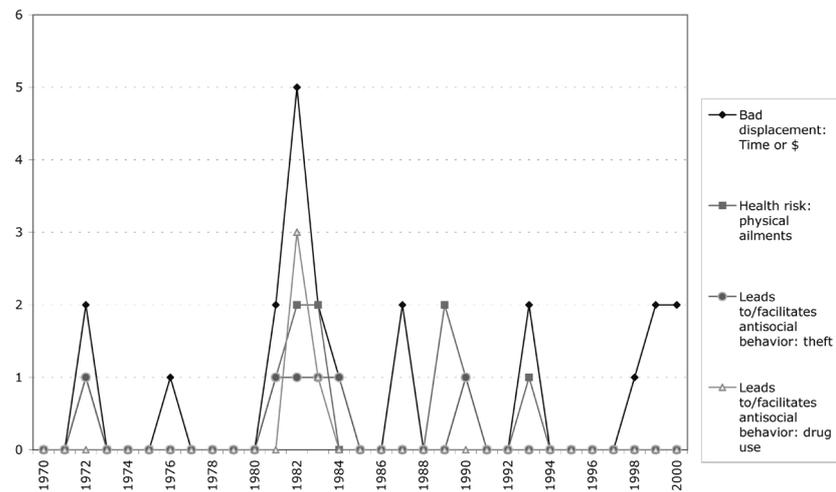


Figure 10 Dystopian Wave I.

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wholesome activity: 'A conversation with a twelve year old boy produces unsettling information. . . . "I usually bring \$20," says the boy, when asked how much money he spends, "but today I brought \$40"' (Skow 1982: 52). Equally common was children's displacement of other worthwhile activities such as reading, playing with friends or being outside. For example, 'For many parents, the problem is not what their children are doing on their Nintendo systems, but what they are *not* doing while locked in *Mortal Kombat* - reading books, playing outdoors, making friends' (Elmer-DeWitt 1993b: 71). One article lamented that video games were causing young children to turn away from Shakespeare. When not engaged in these more acceptable pursuits, video-game-playing children were also said to be susceptible to homosexual cruisers, prostitution and hard liquor (Skow 1982), or gambling ('Videogames-Fun or Serious Threat?' 1982). The 'theft' and 'drug use' frames also suggested that arcades were either the locus of problems or that games drove players to steal or traffic drugs to support their gaming habits. Often this frame came from the actions or speeches of small-town mayors who had banned arcades because they had heard of or seen deviant behaviour in them – but never in their towns.

H_2 , the *Fear Order hypothesis* was that news frames involving children would occur in the following order: fears of destructive displacement of worthwhile activities, as illustrated in the first wave, then fears of negative health effects; and then, fears about the effects of content on values, attitudes and behaviour.

The early 'health risk' frame suggested by Wartella and Reeves (1983, 1985) was found, nearly simultaneous to the negative displacement frame. Concerns revolved primarily around skeletomuscular ailments such as 'Pac Man elbow' (Skow 1982), 'video wrist' ('Donkey Kong Goes to Harvard' 1983), 'Nintendinitis' (Adler *et al.* 1989), and 'Space Invaders wrist' (Zoglin 1989), but also epileptic seizures (Leerhsen *et al.* 1983).

To support further the second hypothesis, the second wave of dystopian frames included the bulk of social risks and fears that Wartella and Reeves suggested would occur next (see Figure 11). This second wave took place largely in the late 1980s and the 1990s. It highlighted fears of video games' effects on values, attitudes and behaviour and a rise in the language of addiction in game use. This wave might have been short lived were it not for two things. The first was the highly publicized controversy surrounding the realistic (for its time) and violent game *Mortal Kombat*. The second was the 1999 massacre at Columbine High School in Littleton, Colorado, USA. Both served as catalysts for fears about the social risks of video-game players, specifically in how games might make players more violent.

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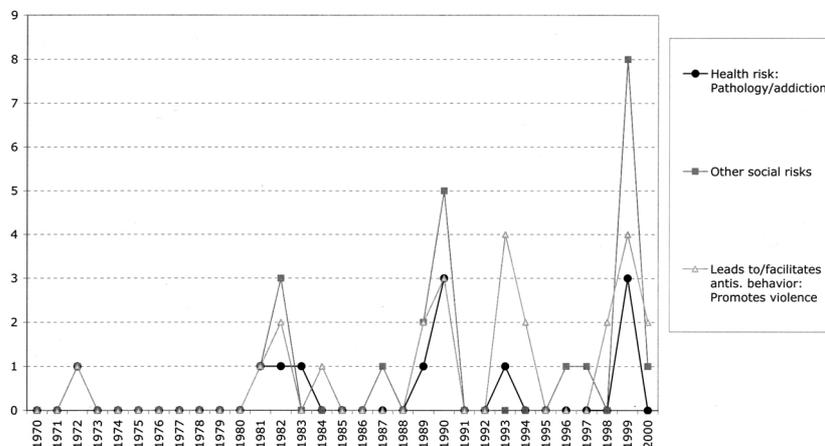


Figure 11 Dystopian Wave II.

The study captured a significant volume of fears about the addictive potential of video games. Although the players often jokingly referred to their play as ‘habits’ or ‘addictions’, the sheer volume of words most often associated with drugs and alcohol was striking. Writers often relied on the language of pathology to describe game players, frequently using terms such as ‘junkies’, ‘mania’, ‘infected’, ‘pathological preoccupation’ and ‘madness’.

The ‘other social risks’ frame included the inability of children to distinguish between fantasy and reality, over-commercialization, mindless passivity in gameplay and the promotion of low culture. A cohort effect was evident in the suspicion that Baby Boomers still have for their now-grown progeny. One headline joked insultingly ‘Just Don’t Shoot the Client. How Do You Train Nintendo-Generation Workers?’ and suggested that those ‘Nintendo-generation workers’ need more stimuli than previous generations, and have shorter attention spans (Meyer 1998).

Lastly, ‘games as promoting violence’ was consistently tied to adolescent males, and the hypodermic media-effects model predominated the frame. Young male players were said to have become ‘inured to violence’ (Thomas 1998: 76), and games gave ‘kids a lack of respect for life’ (Taylor 1999a: 50). The Columbine incident initiated a resuscitation of this frame: ‘Did the sensibilities created by the modern video kill games play a role in the Littleton massacre? Apparently so’ (Leo 1999: 14). But video games were not necessarily framed as the main culprit in all of the articles. This is not to say that new media technologies do not serve as sites of anxiety for social problems – in fact

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the new ones still do. It is perhaps not surprising that in many other articles about the incident, a suspicious and shadowy newer medium was blamed for Columbine: the Internet.

DISCUSSION

Consistent with prior new media technologies, video games passed through marked phases of vilification followed by partial redemption. Also consistent with prior media, games served as touchstones for larger struggles within the culture – so much so that perhaps ‘lightning rod’ is a better term. Lastly, the two hypotheses about conservative fears around new media were supported by the data.

Several surprising findings in the sample merit speculation. Since the game industry and its proponents so often feel like social pariahs or are defensive about the merits and negative effects of video games, it was surprising to see so many positive frames. This may simply be a function of the journalistic norm of a two-sided balance in reporting (Gans 1980). The initial utopian frames appeared to function as defences against the sorts of fears that Wartella and Reeves (1983, 1985) predict. Instead of games taking children’s time from valuable activities, time was argued to be safe and well spent. The second round of utopian frames appeared to be the hallmark of a more mature medium, and at least partially as the result of a maturing cohort that grew up with video-game technology: ‘The kids who fell in love with Mario when they were six, they’re now twenty six’ (Croal 2000: 48). Both the writers, and one might presume the readers, are now less focused on defending video games rather than on simply accepting their presence and enjoying or disliking them as readily as other mainstream media. This is also consistent with what we know about the stability of attitudes over time. Most opinion change occurs through mortality and generational change, not within cohorts (Jennings and Niemi 1981). This finding is further validated by the rise in maturation indicators. Given the surge in leisure spending, the search for more convenient forms of entertainment, and a new generation without a predisposition to the medium, the rising popularity of video games should not be surprising.

The dystopian frames speak not only to the hypotheses generated earlier, but to general social conditions in the USA, and to the idea that new technologies provide a telling window into the issues of the day. It is surely no coincidence that the years 1981 and 1982 marked the start of the dystopian frames of misspent youth, or fears of injury, drug use and the like – and that this is precisely the period of the conservative Reagan administration’s rise to

power. In seeking to throw off what it perceived as the general social, cultural and moral malaise of the 1970s, the Reagan administration campaigned on a platform that championed a return to wholesome family values. In doing so, it especially highlighted the culpability and irresponsibility of single mothers. Thus, children and families became a site of struggle, and frames about truancy, latchkey children and the negative influences of electronic media of all types played into this political agenda. Conservative pundits repeatedly castigated video games and television as enabling irresponsible parents – mostly said to be single mothers – to rely on an electronic babysitter instead of providing decent parenting. Games were a convenient target, but not the primary one. Instead, they became a means to attack a particular group.

A similar pattern emerged for issues of place. Early accounts of public arcades tell a story of positive, inclusive space for the mixing of age, gender, class and ethnic groups (Hertz 1997). These locations were threatening to a conservative establishment already struggling with a rapidly changing and increasingly diverse society. It is no wonder then that arcades earned a special dose of ire in early 1980s coverage, and that adults frequenting these locales were suddenly framed as deviants. And, although this essay is not arguing for a causal link between media frames and public opinion, it is certainly notable that, by July 1982, public opinion polls showed that 30 per cent of Americans favoured a total ban on arcade games (Roper Report 1982).

Such fears and tensions may also have been playing a reciprocal role with academic research, which has taken up the search for negative effects of video games. Despite two decades of mixed and inconclusive findings (Dill and Dill 1998; Griffiths 1999; Anderson and Bushman 2001; Sherry 2001), the research continues. Is it possible that these media frames are impacting the research agenda? It is certain that the reverse has taken place. Media coverage over the past thirty years has drawn incorrectly on research results, often ignoring the null findings altogether. One column went so far as to suggest that research has proven that games are pathologically addicting children at epidemic rates (Garver 1990). The writer had clearly not read beyond the title ('Pathological preoccupation with video games') of the short research article he cited (Keepers 1990), or he would have discovered that it was not a finding that could be generalized, but rather a psychological case study of a single child who was being abused by a parent.

How can we explain the biological determinism surrounding gender and video-gameplay? The general exclusion of women from video-gaming frames can be viewed as part of a broader power issue in gender and technoliteracy. If games were, as many suggested, a path to technology skills, then female gamers

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would ultimately be as much of a threat to male techno-centric power as female computer engineering students. If women were stereotyped as being uninterested or unable to grasp technology, men would retain power in that sphere. This is not to suggest that there was some sort of conspiracy to keep women in place. Rather, it is evidence that the pursuit of science and technology continues to be socially constructed as male (Jansen 1989; McQuivey 2001), and that media coverage can play a role. Despite this rigid construction, women are entering skill positions in technology, but computer science continues to be perceived and experienced as hostile to women (Pearl *et al.* 1990), and females accounted for only 15 per cent of engineering PhDs in 1999 – an all-time high (National Science Foundation Survey of Earned Doctorates Summary 1999).

Lastly, in the early 1980s, there was a large gap between which genders and age groups video games were supposedly 'for'. But by the turn of the century, these gaps had narrowed considerably. Women began to be seen on previously male turf and adults re-emerged as players of adolescent-coded technology. Drawing on the theories of Goffman, Meyrowitz (1985) has suggested that electronic media generally have this convergent effect. Since electronic media allow groups to view the formerly unseen behaviours of their counterparts, it is not surprising that some may try on those roles. Youths can try out adult roles and vice versa; similarly for men and women, and for different races (Nakamura 2001). With games no longer framed in the media as the province of white adolescent boys, we should expect to see more diversity among new players.

There are limitations to the research method. A content analysis cannot prove effects, and the presence of particular media frames is not proof of anything conscious among journalists. Nor are these frames the same thing as an accurate measure of public opinion or of individual reactions. We cannot know if the utopian or dystopian frames resonated with readers, or if they reflect ambivalence. Also, with little prior work on the social history of games, the scope of this work is necessarily broad. Future research should delve more deeply into particular eras and provide further historical analysis. For example, who actually did play games, when, where and why? Who was not allowed? Anecdotal evidence here suggests a rich and complicated social history ready to be explored.

Still, media frames matter because they are important benchmarks for the times. As Jameson writes:

anxiety and hope are two faces of the same collective consciousness, so that the works of mass culture, even if their function lies in the legitimation of the existing order – or some worse one – cannot do their job without deflecting the latter's service the deepest and most fundamental hopes and fantasies of the collectivity.

(Jameson 1979: 144)

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In reality, there is no gender, age, class or race inherent in media technologies, despite the repetition of those constructions in the news media's framing. To emphasize them again and again is to also remind the misrepresented that they are being inaccurately portrayed.

Dmitri Williams
Department of Communication Studies
University of Michigan
USA
E-mail: dcwillia@umich.edu

ACKNOWLEDGEMENTS

The author gratefully acknowledges the support of the Marsh Center for Journalistic Performance at the University of Michigan Department of Communication Studies. Thanks go to Leon Tan and Cindy Horng for their assistance, and to Susan Douglas and W. Russell Neuman for their valuable comments on earlier drafts of this work.

NOTES

1. In the article, children were called 'vidkids' (Langway 1981: 90) and adults, including several celebrities, were said to be equally 'captivated' (91). By contrast, girls 'seem to shun the arcades' (91).
2. As a validity check on the method, articles from the *New York Times* and newscasts from the major three networks stored at the Vanderbilt Television News Archive were checked against the results here. The patterns found in those articles and newscasts match the ones found here for news magazines.
3. There were no game-related entries for Dreamcast, Intellivision, Odyssey or Fairchild. Coverage did not begin to approach the more detailed level of specific companies and products until the late 70s/early 80s. Up until then the articles were usually all under 'electronic games'. Stories about electronic games that were not played on some kind of screen were omitted.

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APPENDIX: INTERCODER RELIABILITY MEASURES

Variable name	Scott's pi
Fun, enjoyable play	0.755
Physical skill honed	0.856
Takes/builds intelligence	0.771
Violence as catharsis	0.957
Educational	0.813
Social: team or friendship building	0.657
Promotes use of/familiarity with technology	0.770
Good displacement: keeps players off street, etc.	0.971
Displacement: time & money taken from worthwhile activities	0.942
Health risk: physical ailments	0.928
Health risk: Pathology/addiction	0.771
Social risks: ruins values or attitudes	0.770
Leads to/facilitates anti-social behaviour: drug use	0.957
Leads to/facilitates anti-social behaviour: theft	0.986
Leads to/facilitates anti-social behaviour: promotes violence	0.813
Leads to/facilitates anti-social behaviour: other	0.799
Parents are concerned	0.813
Civic leaders/authorities are concerned	0.871
Academics are concerned	0.798
Games are for males	0.714
Games are for females	0.755
Games are for kids	0.714
Games are for adults	0.714
Kids are impacted by games	0.714
Adults are impacted by games	0.726
Game performance/system quality	0.714
Games as artistic	0.886
Auteur coverage: designers/producers	0.886
Any business angle (for total measures)	0.771
Mean	0.820
Median	0.799