

Dealing with Climate Change in a Digital Age

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Canadians Concerned about Violence in Entertainment

Digital technologies offer unprecedented opportunities in addressing climate change as public policy requirements increasingly pervade national boundaries. Health issues now merge with those in education, the environment, energy, culture, gender, security, and the economy. They offer enormous potential in mobilizing for political action. But they also have a dark side. Outgoing U.S. President Barack Obama issued a warning that social media in particular poses an existential threat to democracy. Their pervasive influence during the 2016 American presidential election highlighted the potential for the spread of fake news and alternative facts. These realities must be recognized and addressed if meaningful policies on climate change and future sustainability are to be achieved. The challenges ahead require a re-examination of overarching trends in mass media that date back to the middle of the last century. Warnings from scientists, scholars, and community activists indicate that, on the issue of climate change, time is running out. In his *Encyclical on Climate Change and Inequality*, Pope Francis amplified the urgent call to action. But collectively, we need to rethink the profit driven ways in which our proliferating digital technologies mitigate potential steps toward a sustainable future. In a myriad of forms that go well beyond the seductive and addicting trends of endless hours spent online, new and proliferating digital toys and gadgets are neither carbon neutral, nor as some proponents would have us believe, do they hold the sole promise of innovation and job creation. Additionally, their potential must be harnessed to maintain rather than disrupt social stability.

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1. Introduction

Technological products are never neutral. Their invention and adoption by humans condition lifestyles, influence value systems, and end up shaping social possibilities, usually in the interests of the most powerful groups in society. As Marshall McLuhan pointed out, “the medium is the message.” In our new electronic age, a total new environment has been created (1964). Periodic stock market reports indicate that the main beneficiaries have been media moguls and software giants such as Apple, Google, Microsoft, Facebook, Twitter, LinkedIn, AT&T, and Amazon. As public awareness of the need to address climate change gathers momentum, so does the need to re-examine entrenched ways in which we organize ourselves politically, economically, culturally, and spiritually. Ecological culture cannot be reduced to a series of urgent and partial responses to the immediate problems of pollution, environmental decay, and natural resource depletion. We need an educational program to generate resistance to the assault of the technocratic paradigm that dictates the profit driven terms

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by which we learn, communicate, and amuse ourselves. This must include critical examination of electronic media, arguably the most powerful educator the world has ever known.

Emerging trends in government public policy to meet the test of their impact on climate change must also be screened through the lens of their social impact. Otherwise, new initiatives launched in the aftermath of the 2015 Paris Summit will become mired in the same market driven, globalized logic that equates economic health and prosperity with over consumption, trends toward economic inequality and disregard for degradation of our natural environment. These counterproductive tendencies are especially prevalent but still largely overlooked as they apply to the digital technologies.

2. The Social Impact of Electronic Media

The very idea of value-free technology of any kind confirms a formidable pro-technology mind-set. We need to think of all technology in environmental terms because of the way in which it envelops us as we live out our lives in reconstructed, human-created environments, literally inside manufactured goods. As Ursula Franklin pointed out, most of our technologies have become designs for human compliance. Silicon Valley enthusiasts focused on artificial intelligence tell us that, coming soon, are robots that will far outstrip our capacity for human intelligence. These developments accelerate our alienation from nature and, in turn, the destruction of nature by moving us farther inside an already pervasive artificial reality.

Marshall McLuhan, Harold Innis, Ursula Franklin and Jerry Mander are among those that argued decades ago, that we had not yet grasped the fact that many technologies determine their own use, their own effects, and even the kind of people who control them (1951; 1964; 1990; 1991). We still haven't. They urged us to think of technology as having ideology built into its very form. In the early 1950s, for example, television was introduced to shift a wartime economy to one based on consumerism. At the heart of it all, was and still is the advertising industry, one of the most ubiquitous and tenacious forms of communication and ideology in society (Dyer 1982). Advertising influences our thoughts, feelings, and the way we live our lives.

For decades, it has supported and largely determined, not only our television viewing habits, but what gets published in our mainstream newspapers, and periodicals. Now both mediums are increasingly threatened by declining advertising revenue as it migrates to the Internet and social media. The result has been an erosion of key aspects of responsible news coverage such as investigative journalism as revenue from subscriptions has also waned. The advertising industry is highly organized and involves countless artists, copy writers, and digital experts. It inevitably influences the policies and the appearance of news making media. Advertisements advance and perpetuate the ideas and values which are indispensable to "developed" economies. Their purpose is to persuade us to buy things, use them, throw them away and buy replacements in a cycle of continuous and conspicuous consumption. Such underpinnings are clearly at odds with initiatives to encourage reducing, reusing, and recycling goods to ensure a sustainable future. As Vance Packard pointed out over 50 years ago, in his provocative best sellers on the American philosophy and practices of deliberate waste under the pretense of making America great, such economic strategies drain our finances, undermine our children and threaten our future (1960).

Benjamin Barber discusses the triumph of capitalism and how it has created a cultural ethos of induced childishness in his book, *Consumed: How Markets Corrupt Children, Infantilize Adults and Swallow Citizens Whole* (2007). The public at large has been conditioned to respond to the demands of consumer capitalism in a global market economy. Among other things, the cumulative impact of this infantilization is contributing to

growing evidence of decreasing civility. Examples proliferate of hate speech on and off line defended under the umbrella of “free speech.” The distinctions among needs, wants, and desires have been eroded. Endless promises of instant gratification and other hollow payoffs have proliferated to the point where civilization and in turn, democratic capitalism, itself, is at risk. Chris Hedges, Neil Postman, and others have also argued that we must wake up from our state of induced childishness before it is too late. We are now immersed in a cultural environment that has passively given up the linguistic and intellectual tools to cope with complexity and to separate illusion from reality (1989; 2009). We are addicted to our digital toys, deluded into a lifestyle of endless texting inside social mediated worlds where virtual contact replaces real human contact. Increasingly we have become secure in our isolated bubbles among likeminded individuals. This is creating a dangerously polarized political scenario.

These trends are also helping to restrict economic access into the middle class, widely considered a hallmark of social well being and success. In 2015, the Canadian Radio-Television and Telecommunications Commission (CRTC) pointed out that Canadians were spending a growing portion of their disposable income on mobile and internet service as they feed ever-increasing appetites for online entertainment, now estimated at \$203 per month per household. But the entire focus of public concern revolves around the shrinking middle class and concentration of wealth in the hands of the top 1 percent without adequate assessment of what might realistically characterize a successful middle class lifestyle. No one seemed worried, for example, about Apple Inc.s announced foray into the \$75 billion global gaming industry with its new Apple TV device, expected to create “a big new category in gaming” and, of course, consumer demand (Wingfield 2015, B5).

Our culture is now permeated with images and slogans affording the mirage of functional literacy among youth who increasingly choose not to read at all. Critical thinking skills are being replaced with superficial, technological operating skills. Propaganda masks ideas and ideology in the production of real knowledge along with public relations spin doctoring. Both have helped to create a fertile ground for the development of alternative facts. The predominant emphasis in our mass media saturated cultural environment is on how we can be encouraged to feel good rather than to think critically. Most media scholars who have written about these issues have tended to conclude that if we understood the process better, we would learn to resist the seductive influences involved. In other words, the key strategy advocated has been age appropriate courses in media literacy throughout the educational process (Duncan et al. 1996).

Clearly that has not worked very well. The entire process has tended to take on a values free, postmodernist flavor with the larger, structural, and political underpinnings ignored. In many cases, the advertising industry itself has stepped in and eagerly offered glossy resource material for school curriculums that further masks the seductive purposes involved. In the process, the bar gets lower every year with new manifestations of media excesses dominating the preoccupations of pundits, whether these revolve around how to respond to reality TV billionaire celebrities such as Donald Trump winning political office, corporate privileges of software gurus such as Apple fending off overtures from government officials for assistance in gathering information on domestic terrorists or public airwaves dominated by the fame and fortune of Hollywood celebrities. The prevailing mantra is for “net neutrality” to ensure a level playing field and protection of privacy for every conceivable form of internet use. Exploitive media industries have been given carte blanche to conduct business according to what feeds the bottom line, regardless of the consequences. Their practices have been skillfully wrapped in rhetoric that ensures the public at large is conditioned to accept the

premise that corporations are like individuals; entitled to freedom of expression regardless of its nature, be it political, pornographic or the seduction of children from the time they first come out of the womb.

In 2010, California Senator Leland Yee proposed a ban on the marketing of violent video games to children. He was backed by the state chapter of the American Academy of Pediatrics, other health organizations and supported by 11 other states. Nevertheless, the U.S. Supreme Court ultimately ruled in favor of the software industry (Bascaramurty 2011). This case demonstrated how the court system, itself, tends to lean in favor of big media conglomerates protecting every conceivable form of speech under the First Amendment regardless of the consequences. Distinctions among news media and entertainment, violent, pornographic and otherwise, have been blurred if not obliterated. The rise of public relations advocacy campaigns warning against the dangers of government interference in the market place have conditioned the public at large to accept the gravitational pull in social codes of conduct involving all forms of media toward the consensus of those in power (McChesney 2013). These exceptionally strong guard rails for free speech are aimed almost entirely at preventing only government overreach.

3. Sustaining Economic Growth by Exploiting Children

“Pester power” and “the nag factor” are among the techniques used by advertising agencies to target children with a host of commodities that go far beyond the digital seduction which starts with “brainy baby and Baby Einstein” videos. Extensively documented research showing harmful effects is ignored. As pointed out by the Harvard Medical School based, *Campaign for a Commercial-Free Childhood* (CCFC) in Boston, in 2006, Disney sold 20 million baby Einstein videos despite the fact that both the American and Canadian Academies of Pediatrics recommend no screen time at all for children before the age of 2 years.

According to the CCFC, over \$17 billion was spent in 2006 by the advertising industry marketing products to children, a staggering increase over \$100 million spent in 1983. Every year, the average child 2-11 sees 20,000 ads on television, not including product placement. Over \$500 billion is the amount in purchases influenced by children under the age of 12 every year. Toys sold to children with fast food every year amount to \$1.2 billion. The number of acts of violence including 40,000 murders the average child will see on TV before the age of eighteen, is estimated at 200,000. The list goes on (c-cave.org; commercialfreechildhood.org).

Many countries have developed cooperative restraints on the harmful effects of advertising to minors and taken serious steps to limit their exposure. Based on models developed in the Scandinavian countries, advertising to children 13 years and under has been banned in Quebec for almost three decades. Great Britain, Switzerland, Italy, France, Malta, Greece, Turkey, New Zealand, and other countries have adopted similar legislation in response to evidence which includes the harmful effects of screen-based violence, sexual exploitation, the advertising of junk food causing physical health problems such as obesity and heart disease and cancer causing cell phones and towers. It has yet to be adopted in the rest of Canada or anywhere else in North America, despite repeated calls from numerous Boards of Health over the years and, in Canada, bills introduced by NDP members in Ontario and the House of Commons. Indeed, a recent call even appeared in a *Globe and Mail* editorial, considered Canada’s national newspaper (2016).

4. Shortsighted Emphasis on Economic Growth and Job Creation

As Al Gore, Naomi Klein, and others point out, the really inconvenient truth is that our problem is not about carbon, it is about capitalism—that we are facing nothing short of a civilizational wake-up call (2014;

2017). We must seize the moment to transform our failed system and build something better. But this cannot happen without examining the ways in which digital technologies comprise a growing sector of the modern, unsustainable economy by adding increasing demands for more energy for dubious purposes. We could start by critically examining the impact of the gaming industry on our growing individual and collective ecological footprints. In 2010, *The Economist* predicted that video games would be the fastest growing form of mass media over the coming decade, estimated at around \$82 billion U.S. by 2015. The action-packed (code for violence filled) video game *Call of Duty: Black Ops* had fans in countries around the world queued for blocks on the first day of its release in 2010—an example of what Benjamin Barber calls infantilized consumerism. By 2017, Citigroup's global quantitative strategy team had video gaming listed as its top profitable investment suggestion (Barlow 2017).

In 2011, it was reported in *The New York Times* that wasteful government spending in both Canada and the U.S. involves generous tax breaks for video game producers regardless of content. Production and distribution of gory video games has become one of the most highly subsidized businesses on the continent. Government policy statements and annual budgets usually call for “improving incentives for audiovisual productions.” But the nature of proposed productions also needs to be examined. In Canada, a bill was brought before the House by the Minister of Heritage in 2008 for the elimination of such incentives for audio visual productions involving extremely violent and pornographic content deemed to be harmful to the public interest. It initially passed but was ultimately defeated in the Liberal dominated Senate. Industry lobbyists successfully advanced the argument that introduction of such discretionary funding would be too grave a threat to freedom of expression. The reality is that what it would impede is freedom of corporate enterprise regardless of consequences.

In Canada, any attempts to eliminate such incentives have so far been futile. In 2015, it was reported in *The Globe and Mail* that of the \$1.2 billion collected in carbon taxes in the province of B.C. in 2014, 300 million was given to the audiovisual industries. On December 5, 2015, Barry McKenna reported on how, back in 2009, the Ontario Government “was ready to do almost anything to lure the burgeoning video game industry to the province” (B1). The objective was to build a new economy by spawning a new kind of manufacturing for job creation. As a result, Ubisoft S.A., the French maker of popular video games, such as *Assassin's Creed*, with imagery that mirror's the grizzly beheadings of American journalists posted online by ISIL in recent years, received the single largest business grant made by the province in the past decade.

In return for \$264 million in subsidies over a period of 10 years, with only the thinnest of strings attached, the company promised to open a video gaming studio in Toronto. It is estimated that for the roughly 899 jobs created, each one cost the tax payer about \$330,000. But on the whole, McKenna's criticism was focused entirely on the Ubisoft case as an example of “irresponsible scattering of tax dollars around the corporate landscape” for job creation (B1). He had nothing to say about irresponsible subsidies for the production and distribution of toxic cultural products known to be harmful to the public interest for the purpose of job creation. Enthusiasm for the industry continues to grow regardless of countless studies demonstrating harmful effects of violence as a form of entertainment done in the past, some of them by the Ontario Government itself (Ontario 1977; Dyson 1995, 2000). The Entertainment Software Association of Canada claims to generate \$2.3 million annually in GDP. Said CEO Jamie Hitchie, “I don't think a lot of people are aware of how prolific our video game industry is in the global context. We have more video game developers per capita than anywhere else in

the world and we're producing some of the world's best titles." Among them he, enthused was *Assassin's Creed* (Mckenna 2015).

It has been pointed out that once one is on the path to violent extremism there is no end to what would be terrorists can find online to solidify their beliefs. It can be done with a few clicks within 30 seconds. According to National Post journalist Catherine Solyom, the Islamic State "has made it maddeningly simple for sympathizers worldwide to take up the extremist's cause" (A13). Conflict tourism is now prevalent among violent entertainment addicted gamers. In her article titled "The road from rapper to ISIL pitchman," journalist Sarah Kaplan quotes one recruiter with a background as a Westerner and a musician in a posted video beckoning viewers to "join the fun," as he rapped over grisly footage of Jordanian pilot Moath al-Kasasbeh being burning alive (2015, A13). But wilful blindness remains the order of the day. With each successive terrorist attack, school lock down, or seemingly random outburst of violence, hand wringing about potential solutions among educators, counter terrorism experts, and news commentators persists with scant consideration given to the well documented harmful effects of a steady diet of violent entertainment (Bourrie 2016; Little 2016, A16). Instead, these trends have resulted in a literal growth industry in grief counseling.

5. Threats to Community Safety, Security, and Peace

In October, 2014 CBC Radio talk show host, Anna Marie Tremonte featured a program on the harassment of women in the video game design field. Remarkably, no mention was made about the nature of the content and how it might actually pollute the work environment. The CEO of the international gaming association based in Seattle, a woman, spoke of how she enjoyed "action-filled" video games such as *Halo*, and *Call of Duty*, herself, and said one of her key strategies was for "greater market penetration into the Middle East..." Current evidence that IS is already extremely media savvy and uses social media to recruit and radicalize both male and female youth around the world went unacknowledged.

World of Warcraft gaming, estimated to have well over 10 million members paying \$15 a month, is bad for both the cultural and natural environment. Such gaming is designed to be addictive, considered the main indicator of success in the industry (Bakan 2011, 23). It is no accident that we have rising levels of youth gang violence, internet addictions, cyberbullying, and evidence of mental instability in young adults. We have been warned for decades about how media violence contributes to what American psychologist, researcher and military expert Lt. Colonel David Grossman calls acquired violence immune deficiency syndrome (AVIDS) (2004). George Gerbner created an extensive body of literature and research measuring techniques that show how media violence leads to a mean world syndrome (Dyson 1995, 2000; Morgan 2002). It is time to move beyond the duplicitous and specious argument that it is "just entertainment," or that the "findings showing harmful effects are inconclusive." Common sense indicates otherwise. If advertising messages help to sell products and media coverage of violence acts can incite copycat crimes, *Infotainment* and *Edutainment* can also influence behavior. The lengths to which the digital entertainment industry will go to protect their unbridled corporate freedom is well illustrated in the documentary "Merchants of Doubt" released in March, 2015 based on a book with the same title authored by American scientists, Naomi Oreskes, and Erik M. Conway. Both detail the conundrum of "science vers spin" with emphasis on how public relations experts help to discredit science on harmful, cancer, and addiction causing effects of tobacco and, these days, on climate change. The same tactics have been employed by corporate interests on numerous products over the years including popular culture commodities such as violent video games (Scott 2015).

6. More Digital Threats to Health and Well Being

The harmful effects of over exposure to digital technologies go well beyond their impact on children. An enormous body of scientific evidence has accumulated about their addictive tendencies, sedentary nature of their use, tendency to impede development of socializing skills, apart from those cultivated online, contribution to attention deficit disorders and so on (Dyson 1995, 2000; Morgan 2002). Added to these, in recent years, have been warnings issued by the World Health Organization, advocates such as former president of Microsoft Canada, Frank Clegg and American scientist Devra Davis, about dangers from exposure to low level radiation from wireless devices and how these can increase the risk of cancer (Davis 2010). Since 2011, many countries which include Belgium, France, and India have passed laws either prohibiting the placement of cellular antennae on the roofs of hospitals, schools and playgrounds, restricting the sale of kiddie-phones designed for children or recommending limited exposure due to health risks. Cordless phones, Wi-Fi, smart meters, and cell towers effectively function as low-level, constantly-emitting microwave transmitters. In North America, the WHO warnings continue to be ignored by various levels of government.

7. Energy Waste Fueled by Digital Demands

In 2014, Greenpeace released a study indicating that, digital technology products and services accounted for about 2 percent of worldwide emissions in 2012, about the same as the airline industry. Some of the biggest electricity demands come from huge data centers that house the stacks of computers that process search requests, store photos, and stream video. These online services dubbed “cloud computing”—identified as the fastest growing sector of the digital industries—collectively consume more electricity than all but five countries—China, the U.S., Japan, India, and Russia. Despite laudable strides made by tech companies focusing on renewables, the emphasis on marketing practices that create demand continues unimpeded. The reality is that each advance depends on a further cradle to grave cycle of extraction and transport from manufacture to market—then from consumption to waste pit. These electronic cast-offs contain a witch’s brew of heavy metals and toxic substances such as lead, cadmium, and mercury. Some are recycled but most are shipped off to developing countries willing to pay cash for trash.

8. Finally

The rise and continued emphasis on hyper consumerism characterized by inequalities, immaturity, indulgence, and childishness focused on faux needs will not help to create a sustainable future. Relentless efforts of marketers to manipulate the needs and wants of gullible consumers cannot continue to be ignored by climate action advocates. Like the nurturing of violence as a conflict resolution strategy, encouraging, or even ignoring such infantilized behavior is counterproductive. When he launched the Cultural Environment Movement at its founding convention at Webster University in St. Louis, Mo. in 1996 with the help of over 150 independent organizations and supporters from 64 countries around the world, including this author, George Gerbner stressed that cultural activists needed to take lessons from the natural environmental movement. But at this point what is needed is for the current focus on climate change to be broadened to embrace the cultural environment movement.

Media scholars, educators, school administrators, and health professions must more vigorously and courageously resist the unimpeded explosion of digital devices that reinforce consumerism in some of its ugliest and most destructive forms. A more discriminating approach to every new invention and release on the

market is overdue. Such emphasis would help to move forward calls for a new economic order. Pope Francis's call for a new educational approach to address the technocratic paradigm that has led us to where we are today is a key part of this equation. Divestment from fossil fuel companies, such as that called for by former banker Jeff Rubin and others, in our current economic paradigm is only half the answer (Rubin 2015). Reining in a voracious industrial appetite for any kind of energy, clean or otherwise, for the purpose of producing and distributing goods no one needs and in many cases are harmful in an age dominated by digital technology, is a must.

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