
**Abstract**

While vaccinations may be desperately sought out in developing countries, many more industrialized countries are now facing the perplexing quandary of citizens opting not to vaccinate for a myriad of individual reasons. Vaccination rates in New Zealand are amongst the lowest in the Organisation for Economic Co-operation and Development (OECD). New Zealand ranks 33rd out of 35 developed counties for immunizations, according to Unicef’s State of the World’s Children report. In the middle of 2009, a measles outbreak in New Zealand was declared by the Ministry of Health as a precursor to a “potential measles epidemic.” In August of 2009, the incidence of reported measles for the year was more than 10 times the number of measles for the entirety of 2008.

The decline in New Zealand immunization rates could clearly be attributed to many factors: cultural changes, a lack of information received from medical practitioners, fear of a corporate conspiracy and religious beliefs are only a few of the myriad possibilities. However, the information in available and accessible media must also be included as a potential barrier to vaccination. Such low rates of immunization protection warrant an examination of both the alternative and mainstream press to uncover what type of discourse exists in relation to vaccination campaigns.

This study examines the discourse of anti and pro-vaccination discourse in New Zealand alternative and mainstream online media within the framework of Marxist ideology. Vaccination rates have an explicit dependence upon Marxist ideals of communal support for overall efficacy. Immunization schedules are most successful within a society when entire communities are vaccinated. The praxis and theory of Marxism within the production of alternative media, much like vaccination campaigns, depend upon egalitarian, community-minded ideals. Alternative media have been traditionally very hard to categorize, but a comprehensive review of scholarly literature reveals a strong Marxist propensity within the community of alternative media.
One might expect to find this Marxist ideology throughout pro-vaccination discourse given the nature of vaccinations and also that these perspectives might be more frequently located within alternative media, which have been found to depend upon these same egalitarian ideologies. This study tests this assumption and questions whether online alternative media represent vaccination differently than the predominantly capitalistic mainstream media. In doing so, this research will explore the occasional conflicting nexus between the ideology of an issue and the ideology of a medium. While Marxism depends heavily on communal belief systems, it also serves as a framework to denounce corporate power. It is possible that alternative media might usurp their previously held communal tenets of operation in favor of corporate denigration. This research will examine whether the organizational norms and practices of an institution can be circumvented when the possibility of denouncing a core oppositional ideology arises. These findings will be considered in relation to spreading health campaign messages through appropriate media channels. In doing so, this paper hopes to contribute to the growing body of research examining health communication within alternative media delivery campaigns.
This study examines the discourse of anti and pro-vaccination discourse in New Zealand alternative and mainstream online media within the framework of Marxist ideology. Vaccination, as a case study, was chosen because of its explicit dependence upon community efforts for overall efficacy. Vaccination schedules are most successful within a society when entire communities are immunized. If some within a community choose not to vaccinate, then others within the community face an increased chance of infection. Vaccination rates in New Zealand are amongst the lowest in the OECD. New Zealand ranks 33rd out of 35 developed counties for immunizations, according to Unicef’s State of the World’s Children report ("NZ's vaccination rates lagging," 2009). Such low rates of immunization protection suggest an examination of both the alternative and mainstream press to uncover what type of discourse exists in relation to vaccination campaigns.

The praxis and theory of Marxism, much like vaccination campaigns, depend upon egalitarian, community-minded ideals. One could assume to find Marxist ideology throughout pro-vaccination discourse and that these perspectives would also be most likely to occur in alternative media, which has been found to depend upon these same communal, egalitarian ideologies. This study attempts to explore this assumption and, in doing so, hopes to contribute to the growing body of research examining alternative media.

Alternative media have been seen to traditionally draw from principles of Marxism, both in the type of discourse and the manifest or even latent intent of the communication. This is in contrast to mainstream media, which have been labelled individualistic and driven by forces of capitalism. Given that academic research into alternative media is still developing (Atton & Wickenden, 2005), this research aims to explore and better understand the complex, yet distinct, differences and similarities that exist across the mediated spectrum. Any differences between mainstream and alternative content will be considered within research that has traditionally examined alternative media as an ideological construct in opposition to their mainstream counterparts.

**Marxism**

Corporations exist and thrive within a capitalistic framework. Corporate entities reinforce capitalistic ideology through their everyday, routinized patterns of behavior. Often corporations claim that they merely sell products, without taking any responsibility for their final end use in society. Such an ideological position argues that what people do with these products is completely up to the
individual and outside of corporate responsibility. Perhaps, this is most clearly exemplified by the behavior of International Business Machines (IBM) who strategically assisted the Nazis, by selling punch card systems directly to them, which were crucial in the monitoring of Jewish victims across large geographical spaces before their final deaths in extermination camps (Black, 2001). IBM made “an international business out of mass killings by making profits from selling data storage and processing machines to the Nazis” (Fuchs, 2009, p. 370). IBM, as a corporation within a capitalist ideology, argued that they made these business decisions solely as a means to increase profits.

Marx argued that corporations must accumulate “for accumulation’s sake, production for production’s sake: by this formula classical economy expressed the historical mission of the bourgeoisie” (Marx & Engels, MECW, p. 652). Mainstream media corporations have been found to be no different from corporations selling other, more material, products. Indeed, media are instrumental as an ideological means of communication (Fuchs, 2008; McChesney, 2007). Corporate “media and the communication industry are not innocent, but deeply embedded into structures of domination” (Fuchs, 2009, p. 370). The mainstream media are, in fact, central “pillars of the corporate industrial infrastructure” (Sussman, 1999, p. 86). Readers are engaged within this corporate media sphere as commodities. They are not engaged as equal partners in a communicative relationship. Rather, they are audience commodities (Smythe, 1981/2006) that can be sold to advertising clients as a profit to media corporations.

Media technologies are “means for producing surplus-value” (Marx & Engels, MECW, p. 371). The machine, as Marx conceptualized it, was the elementary factor of production that had the potential to disseminate a capitalistic message and multiply upon itself until the individual worker was found to be redundant. Within the United States, media productivity, or output per hour, increased by 21 percent from 1997 until 2006, while the number of employees within the field of print media, dropped to 615,000 from 815,00 during that same time period. The U.S. Bureau of Labor Statistics surmised that computerization and the expanding use of the Internet has eliminated many prepress and production jobs in the media (U.S. Department of Labor, 2008). As Fuchs (2009) argues, “there is an economic interest in the substitution of living labour by technology to decrease the investment and reproduction costs of capital and its turnover time, which in the ideal case increases profit” (p. 382). The present conglomeration within the media industries is itself representative of an essential component of capitalism (Knoche, 2007).
These organizational norms manifest into ideological shifts in knowledge. “As a result of capital’s drive for increasing productivity by employing new technologies, production becomes increasingly dependent on knowledge,” (Fuchs, 2009, p. 382), or what Marx called “general intellect” (Marx, 1858). Marx argued that social knowledge inevitably becomes a “direct force of production” and is “transformed in accordance with (production)” (Marx, 1858, p. 706). This process of development lifts the importance of media within a society dramatically. Corporate media are of “central importance for capital accumulation” (Fuchs, 2009, p. 382) and for the promulgation of capitalistic ideologies. There has been a strong convergence across mainstream media content (Herman & McChesney, 1997), which legitimizes capitalist domination.

This capitalist framework leads mainstream media to misrepresent reality and create a completely alternate ideology that is inverted from the reality it supposedly represents. This capitalist ideology “is the expression of dominant class interests” (Fuchs, 2009, p. 390). Corporate mainstream media do not re-present information that is in the best interest of the masses. Rather, those “who lack the means of mental production” (Marx & Engels, MECW, p. 59) are subject to the “ideas of the ruling class” (Marx & Engels, MECW, p. 59). These forms of domination are “naturalized by the media and are portrayed as being unchangeable” (Fuchs, 2009, p. 391). In explaining his theory of hegemony, Gramsci (1971) argued that the masses agree to this domination by “refusing to resist, by hoping to gain advantages by supporting domination, or by not seeing through the presented lies so that, as a result, they consent to their own oppression” (Fuchs, 2009, p. 391)

Independent media – particularly online media - can subvert the corporate interests of capitalistic media (McChesney, 2007). An alternative press, as conceptualized by Marx, serves as a “public watchdog, the tireless denouncer of those in power” (Marx & Engels, MEW, p. 231). However, such an investigative and antagonistic alternative media is only possible outside the parameters of profiteering. Egalitarian relationships, both within media and between media users, can unite individuals through common cause. Individuals and groups can “centralise the numerous local struggles, all of the same character, into one national struggle” (Marx & Engels, MECW, p. 493). The decentralized networks of information exchange through the Internet poses a unique opportunity to circumvent mainstream, capitalistic media and realize the theory of a democratic, participatory medium, first put forth by Marx and Engels 150 years ago.
Alternative Media and Marxism

Alternative media have been traditionally very hard to categorize (Downing, 2003), although one can see traces of Marxism throughout most discussion of alternative media. Atkinson (2006) defines alternative media as “any media that are produced by non-commercial sources and attempt to transform existing social roles and routines by critiquing and challenging power structures” (p. 252). The existing social roles and routines that alternative media seek to critique generally stem from capitalism, consumerism, patriarchy, and the nature of corporations. It is this foregrounding in social critique that has historically placed alternative media in diametric opposition to the capitalistic, mainstream press.

Alternative media severs what Marx would call a circuit of capital that exists within capitalistic societies. Independent ‘alternative communication’ constructs different social orders, traditions, values and social understandings (Hamilton, 2000). Alternative media offer an independent platform for groups and individuals that have been marginalized by the mainstream media (Atton, 2002). Mainstream media have been traditionally viewed as maximizing audiences through pack-journalism that is conventional and formulaic, resulting in content that can be binary and reductive. In contrast, independent, alternative media often advocate programs of social change through the framework of politicized and in-depth social commentary (Armstrong, 1981; Duncombe, 1997). Alternative media can serve as “negating forces in media production, circulation and consumption” (Fuchs, 2009, p. 394) and even ‘short circuit’ centralized, mainstream systems of information control (Vaidyanathan, 2004).

Alternative media have the capacity for “transforming spectators into active participants of everyday dealings and events affecting their lives” (Tracy, 2007, p. 272). Indeed, alternative media often view their role as “one of educating and mobilizing the ‘masses’ in the service of a cause or movement” (Hamilton, 2000, p. 359) and generally avoid one-way forms of communication. The frequent solicitation from alternative media outlets for feedback from viewers is purposeful so that an ‘egalitarian relationship’ can be formed between the media outlet and their users (Rodriguez, 2001). Marx and Engels (MECW) argued that relationships based on equality and an even exchange of information are central to a thriving, critical and engaged independent media. The ability of an alternative press to incite change depends upon a mutual respect between the publication and its readers.
One of the central goals of alternative media is to subvert the “hierarchy of access,” (Atton, 2002) which often dictates who is sourced in mainstream media content according to perceived credibility. Such practices “emphasise first person eyewitness accounts by participants; reworking of the populist approaches of tabloid newspapers to recover a ‘radical popular’ style of reporting; collective and anti-hierarchical forms of organization…an inclusive, radical form of civic journalism” (Atton, 2003, p. 267). This type of journalism has been called “native reporting” (Atton, 2002, pp. 112-117), and has been found to be a part of political weblogs (Matheson & Allan, 2003) as well as other open publishing sources online, such as Indymedia (Platon & Deuze, 2003). Content is completely open to the reader as a welcome and inviting text without any coded language that might not be quickly understood. This open form of discourse operates as a challenge to the capitalist media industry (Fuchs, 2009).

Michael Albert from the independent Z Magazine, wrote “an alternative media institution sees itself as part of a project to establish new ways of organizing media and social activity and it is committed to furthering these as a whole, and not just its own preservation (Albert, 2006).” This very important point of demarcation has separated how alternative media have covered important social issues differently than the mainstream press and places it squarely within the Marxist perspective of community rights and collective knowledge. Alternative media offer the space for journalists to “become reporters of their own experiences, struggles and lives” (Atton & Wickenden, 2005, p. 349). In doing so, these experiences form the framework of an alternative media whose central purpose is “to create critical content that challenges capitalism” (Fuchs, 2009, p. 396). However, proponents of alternative media argue that such personalized self-disclosure is not intended for personal gain. Its purpose is to provide relevant, meaningful news that “is best realised through the voices of the community itself” (Atton & Wickenden, 2005, p. 349). Such activism on the part of the ‘journalist’ is often more valued than any traditional mainstream reporting experience (Atton & Wickenden, 2005). This approach favors bystanders to events rather than official voices, that are typically relied upon in the mainstream media (Harcup, 2003) and within capitalistic societies (Marx, 1858).

Atkinson (2003) found that alternative media utilized resistance narratives about multinational corporations. Most researchers agree that at its most fundamental, alternative media facilitate democratic participation and cultural disruption while the mainstream press avoids such social critique (Makagon, 2000). Downing (2001) argues convincingly of the complete mainstream blockage of
public expression and the necessity for alternative media to fill the cultural and social gap. Blogs have emerged as a democratic space in the mediated landscape. There is an obvious opportunity available on the Internet for individuals and groups to expand the reach of publicized activities, to oppose the framing of mainstream media and to generate a wider base of egalitarian support based on Marxist principles of a shared commonality. However, it remains uncertain whether online content truly is an alternative to mainstream media (Kenix, 2009). This research aims to explore whether blogs, in relation to vaccination discourse, draw from qualities inherent to Marxist conceptualizations of alternative media or from something more akin to their mainstream counterparts.

**Blogs as a Potential Extension of Marxism**

The Internet initially developed independently of corporate control because it evolved from a highly specialized science-based exchange of information (Garcelon, 2006). This early specialization later exploded into the present widespread proliferation of online content. In 1999, there were only about 50 existing blogs and they were known by just a few individuals (Johnson, Kaye, Bichard, & Wong, 2007). However, by 2006, 29 percent (57 million) of American Internet users accessed blogs (Lenhart & Fox, 2006). By 2007, 8 out of 10 Americans knew what a blog was and almost half of America had visited blogs (Synovate, 2007). As an example of blog proliferation, the readership and authorship of political blogs had already exceeded that of political print magazines and columns by the year 2004 (Mayfield, 2004).

This phenomenal growth may be due to the dynamic nature of blogs. While some blogs are updated weekly, many more are updated hourly (or even more frequently), with postings in reverse chronological order. Most are interactive and allow viewers to post comments (Lenhart & Fox, 2006). Unlike static websites, blogs depend upon hyperlinks not only to boost attention to their own blog, but to also ensure that users can be quickly led to relevant information. At their idealized best, weblogs have been said to be a space to reflect on the ‘deluge of data’ (Blood, 2002) that we receive, offering an antidote to corporate media. They have the capability to report news without the constraints of censure or the pressures of advertising and draw upon a diverse range of sources that are not selected based on capitalistic pressures. It has been argued that peer to peer networks have grown so powerful that they have actually shifted many of the professional standards that developed in the broadcast industry throughout the 20th century (McChesney, 2004). Yet, at their reductive worst,
bloggers have been said to be strongly opinionated and even vitriolic in response to those who oppose their political positions (Johnson & Kaye, 2004), thereby drastically reducing any potential of an egalitarian democratic sphere.

While most blogs don’t see a fraction of their potential audience, blogs do have far more democratic possibility than previous print or digital publication formats. It is important to note that while the technology is available for conversation, the linguistic discourse of blogs can still operate at the authoritarian level of a one-way, linear form of communication. Bloggers could just as easily be talking at their audience rather than with their audience (Clark, 2002). Most blogs continue to remain firmly rooted in personal disclosure (Lenhart & Fox, 2006). The majority of blogs contain a personal diary or journal with the possibility for two-way communication (Herring, Scheidt, Bonus, & Wright, 2005; Viégas, 2005), and are available for open access (Lenhart & Fox, 2006).

As this review suggests, there is much about online blog content that would suggest a Marxist relationship in opposition to corporate power. Many scholars believe blogs can offer a “radically different kind of news discourse than the one found in mainstream news media” (Haas, 2005, p. 388). This departure from mainstream news content to a Marxist, alternative space is rooted within two unique capabilities of blogs: the possibility for independent, uncensored and non-corporate reporting, which can based upon a wide array of diverse sources (Bruns, 2003); and the ability of blogs to exchange information with readers through egalitarian, communicative relationships. Marxism, as a theory, depends upon egalitarian, community-minded ideals. One could assume that there would be traces of such an ideology through pro-vaccination discourse found to depend upon these same communal, egalitarian ideologies.

The Case of Vaccinations

The Centers for Disease Control and Prevention (CDC) in the United States begins their online discussion of vaccination with the headline, “Disease Prevention – Protect Those Around You” (“How vaccines prevent disease,” 2009). This tenet of community mindedness pervades much of the official discourse about vaccination. Many infectious diseases that were once common have now largely vanished due to historic near-universal vaccinations rates across developed countries. Diseases such as measles, mumps, polio, diphtheria, tetanus, pertussis (whooping cough), rubella (German measles), and Haemophilus influenzae type b (Hib) are rarely found in hospitals throughout
the developed world because of successful vaccination campaigns. The CDC state that “vaccines are one of the greatest success stories in public health. Vaccines have ended smallpox, nearly ended polio, and reduced outbreaks of measles, pertussis, and other illnesses to an all-time low” ("How vaccines are tested and monitored," 2009).

Vaccines contain weakened antigens of diseases that trigger an individual’s immune system to produce antibodies against these diseases (Anagnostakos & Tortora, 1981). The cells that created these antibodies continue to hold a ‘memory’ of the “original antigen and then defend against it when the antigen attempts to re-infect a person, even after many decades. This protection is called immunity” (“How vaccines prevent disease," 2009). Immunizing individuals has a profound impact on the community, particularly on those who can not be immunized because of poor health or age. Immunization also helps to protect those who have had a vaccination but, for whatever reason, did not develop immunity to the disease, which is the case in a very small proportion of vaccinated individuals. The Ministry of Health in New Zealand reports that vaccines protect 80-95 percent of the children who are immunized (“Immunisation: Vaccine Safety,” 2009).

Vaccinations, like any medication, have the possibility for adverse risks. Within the United States, the U.S. Food and Drug Administration (FDA) must license vaccines before their use in the general population. The licensing process begins with computerized tests of efficacy, then move on to animal testing and finally several phases of clinical trials with human participants. This licensing process generally takes ten years or more ("How vaccines are tested and monitored," 2009). Continued monitoring occurs throughout the use of a vaccine as “rare side effects and delayed reactions may not happen until the vaccine is given to millions of people” ("How vaccines are tested and monitored," 2009). New Zealand reports a similar standard of testing, whereby vaccines go through three phases of clinical trials until it is “safe to the satisfaction of Medsafe, a division of the Ministry of Health” ("Immunisation: Vaccine Safety," 2009). The Centre for Adverse Reactions Monitoring (CARM) at Otago University in Dunedin records vaccination reactions to monitor the safety and effectiveness of the immunization. Possible side effects reported by the Ministry of Health are “redness and soreness at the site of injections and mild fever” ("Immunisation," 2009). More severe side effects are extremely rare. For example, encephalitis (brain damage) following the measles vaccine has been reported in about 1 per one million doses. However, this number is very similar to the ‘background’ rate, or the rate that would occur ‘naturally’ in society, so it is not clear that the
vaccine itself causes can encephalitis in this single case. However, if one does attribute this case to
the vaccine, the risk remains at about “1000 times less than the risk of encephalitis from measles
disease” (Ministry of Health, 2006, p. 377). Any risk of severe disease caused by the vaccination is
exponentially less than the risks associated with contracting the disease itself.

Yet, even with rigorous controls and the extremely rare occurrence of serious illness, there is
a wide range of anti-vaccination discourse surrounding the safety and efficacy of vaccines. This
research wishes to explore this range of mediated discourse, particularly given that immunization
rates in New Zealand are amongst the lowest in the OECD. New Zealand ranks 33rd out of 35
developed counties for immunizations, according to Unicef’s State of the World’s Children report
("NZ's vaccination rates lagging," 2009). The overall immunization rate in New Zealand is about 83
percent. The Ministry of Health in New Zealand reports that if vaccinations are to be effective for the
entire community, the rates of compliance need to be 95 percent ("Low immunisation rate triggers
measles outbreak," 2009).

In the middle of 2009, a measles outbreak in New Zealand was declared by the Ministry of
Health as a precursor to a “potential measles epidemic” (Ministry of Health, 2009). Thus far, there
have been more than 100 cases in just the Canterbury region of New Zealand alone. In August, the
incidence of reported measles for the year was more than 10 times the number of measles for the
entirety of 2008 (Ryall, 2009). These numbers prompted the Ministry of Health to announce that as of
August 2009, all unimmunized children will be excluded from class if a child in their class contracts
measles.

The decline in New Zealand immunization rates could clearly be attributed to many factors:
cultural changes, a lack of information received from medical practitioners, and religious beliefs are
only a few of the myriad possibilities. However, the information in available and accessible media
must also be included as a potential barrier to vaccination. This research will now examine the
discourse surrounding vaccinations in alternative and mainstream online media to better understand
how vaccinations are reported overall in the online content of New Zealand media. In doing so, this
research also questions whether alternative media, which has been found to depend upon communal,
egalitarian ideologies, represents vaccination differently than the mainstream media, which have been
labelled individualistic and driven by forces of capitalism. Vaccinations are clearly a social issue that
depend upon an effectively-communicated Marxist praxis to succeed. Without a full understanding of
the communal benefits of vaccines, individuals may opt leave their child without vaccination, thereby reducing the overall efficacy of vaccines and the physical health of society.

Anyone who has spent more than 15 minutes online knows that the Internet has an unparalleled ability to spread innuendo and rumours. Vaccination discourse online certainly falls prey to high levels of misinformation and confusing rhetoric. This research does not aim to substantiate or refute these rumours in any systemic way. Rather, this research hopes to examine, through the framework of Marxist praxis, how alternative and mainstream online discourse presents vaccination to better understand the sometimes conflicting nexus between the ideology of an issue and the ideology of a medium.

Therefore, this study explores the following research questions:

R1: How is vaccination represented in the mainstream and alternative online press of New Zealand?

R2: Are the blogs sampled in this study representative of a Marxist form of alternative media?

In pursuing these research questions, this study will also test the following hypothesis:

H1: The blogs in this sample will more supportive of vaccinations than mainstream news sources.

Method

Data was collected through two means. The first component of data collection involved a Factiva search through the highest circulation New Zealand newspapers: The Press (originating from Christchurch), The Otago Daily Times (originating from Dunedin), The Sunday Star Times (national weekend paper), The Dominion Post (originating from Wellington), and The New Zealand Herald (originating from Auckland). The search was conducted using the terms "children" and "vaccination" from January of 2009 until when this study was conducted in September of 2009. Remaining online content was gathered through a Google search of content with the same search words of "children" and "vaccination" in websites from New Zealand. This resulted in about 29,000 hits. Research has shown that the number of times a result is selected by users decreases exponentially after the first ‘ranking’ on search engines, such as Google (Granka, Joachims, & Gay, 2004). However, the decision on vaccination can be a highly involved exercise on the part of the parent, who may explore
several sites before making any final decisions. Given the more expansive nature of information gathering for high involvement decisions, this study examined the top 100 Google results.

This study used both critical discourse and content analysis. The content analysis followed an inductive approach by first defining the variables to search for and then proceeding with a comprehensive examination. While a drawback to this method is that one may not discover all the variables or frames present, these studies can be easily replicated and a strong benefit of this approach is the ability to detect subtle differences between media (Semetko & Valkenburg, 2000). The brief content analysis undertaken for this study depended on frequencies, percentages, one-way chi-square tests and adjusted residuals. All online sources were coded as either a blog, a non-profit organization, a government source, an academic site, a book publisher, or a corporate company. These sources were then coded as either supportive of vaccinations, in opposition to vaccinations or neutral on the topic of vaccinations.

After quantitatively coding content, a much more thorough organic exploration of the discourse found was undertaken. In line with the previous work of Gamson (1992), this deductive approach began with a loose, preconceived idea of the discursive elements that may exist in content and then slowly proceeded in an attempt to reveal narratives utilized that may not have been considered. These studies can be difficult to replicate and are quite labour intensive (Semetko & Valkenburg, 2000). However, such an analysis of narrative allows for a more complex and detailed understanding. By combining content analysis with discourse analysis, this study aimed to gain both breadth and depth in the subsequent analysis.

Findings

Content Analysis

Blogs were found to be the most common online source within the top 100 rank listings of Google (Figure 1). However, more elite, mainstream sources as a whole, dominated the top 100 listings with 26 percent coming from mainstream news organizations, 22 percent coming from government websites, 6 percent from non-profit organizations and 13 percent from academic sources. Companies (1 percent) and book publishers (2 percent) rounded out the rest of the sources sampled. Overall, within the top 100 websites listed by Google, there was strong support for vaccinations (Figure 2). A majority of 54 percent were found to be in support of vaccinations, 31
percent were against and 15 percent were neutral. However, there was a strongly significant relationship \((p=0.000)\) between the type of source and the degree to which it supported or opposed vaccinations. Blogs were far more likely (adjusted residual score of 8.8) than other sources to be against vaccinations. Such a high adjusted-residual score suggests a very marked departure from the model of independence (well above +2 or below -2) and a strong demonstrated strength in this relationship. Twenty-eight blogs were found to be against vaccinations, while only two were found to be neutral and none were found to be in support. News sources (3.6), government sites (3.9), and non-profit organizations (2.3) were more likely to be supportive of vaccinations than would be expected by chance alone. Academic sites, book publishers and companies in this sample did not demonstrate an obvious strength in either supporting or opposing vaccinations (Figure 3).

The Factiva search of news stories resulted in 23 articles, after removing duplicates, across New Zealand newspapers. Fourteen of the 23 news articles found through Factiva overlapped with the 26 news links found online through the Google search. These two groupings of news sites were amalgamated for the qualitative discourse analysis in order to gather a comprehensive sample of news information over the year. This resulted in a final 35 mainstream news stories to qualitatively compare with the 30 blogs found in this sample. There was a statistically significant \((p=0.000)\) relationship between news and blog sources and the likelihood of supporting vaccinations. News sources were much more likely to be in support of vaccination (6.7), with very few news stories taking a neutral stance (5 stories out of 35) on vaccination. In contrast, blogs were much more likely to be against vaccination (7.6) with very few blogs taking a neutral position (2 out of 30). Of news sources, 85.7 percent were found to support vaccination, while 93.3 percent of blogs were found to oppose vaccinations. Therefore, H1, which stated that the blogs in this sample will be more supportive of vaccinations than mainstream news sources, was not supported.

**Discourse Analysis Results**

After the quantitative stage of this research was complete, a qualitative discourse analysis then examined blogs and news sites according to the characteristics of alternative media, as envisioned by Marxist praxis. These characteristics defined alternative media through its in-depth, expansive analysis (Duncombe, 1997); independent reporting (Atton, 2002); unique stories not covered elsewhere (Makagon, 2000); two-way patterns of communication between the writer and
reader (Rodriguez, 2001); engaged and open discourse (Ostertag, 2007); personalized reporting (Atton & Wickenden, 2005); and encouragement of social participation (Tracy, 2007).

Level of Analysis

A thriving alternative media must facilitate democratic participation (Makagon, 2000). In one sense, the blogs sampled for this study encouraged democratic participation in that readers were urged to make a political stance based on their position regarding vaccination. However, the level of argumentation that blogs took to make such a position was highly individualistic and directed toward personal gain, rather than the betterment of the community. This level of argumentation does not constitute an alternative media propelled by communal Marxist praxis. In contrast, news reports consistently reminded the reader of how their own personal actions could benefit society. Such stances within the mainstream and alternative press subvert traditional views of the media, which have suggested that Marxist theory is embedded in alternative media content and capitalist tenets remain entrenched in the mainstream press.

For example, an article from the mainstream Press on 10 August begins by stating that “a generation of Kiwi children is at risk of potentially deadly disease due to apathy or parents being wary of vaccination, health experts say.” The use of the term generation gives an expansive scope to the problem ahead and blames the risk of deadly disease on the “apathy” of parents or, conversely, their wariness of vaccination. Apathy is equated here with apprehension and the two are held in equal disdain by the reporter. The result of this apathy is death across an entire “generation” of children.

The same article goes on to state that “in a move to protect children, The Ministry of Health has told GP’s to check with patients…” In this case, the general practitioner is positioned as the one who has the best interests of all children in mind and not the individual parent who only sees the potential harm or benefit on their own individual child and not society at large.

There are conceptualizations of community–mindedness in the alternative media sampled for this study, but they exist as the extrapolated obvious extensions of individual behavior. For example, Beyond Conformity tells the story of a nearby family whose father was a “known core antigen Hepatitis B carrier for over 30 years” but never passed the disease on to this unimmunized partner or children. This individual instance is then extrapolated to the larger society who are warned of being “warped” by doctors who are in support of vaccination as immunization was clearly not necessary for
anybody given that it was not necessary for this one individual. Unique instances are cited repeatedly through alternative content without any mention of community protection or herd immunity.

Marxism does not only hinge upon communal tenets, but also on a strong critique of corporate power blocs. There was a virulent oppositional discourse toward corporate power structures in alternative media content. The blog Archetype writes, “the standard response of the Medical Establishment to any criticism of vaccination is to silence the dissenters.” Authors of alternative media are positioned far outside of mainstream positions of power and write of their “censure and ostracism.” Yet, there was very little in-depth social commentary to corroborate this oppositional discourse. While critical, investigative exploration has been found to be a cornerstone of effective alternative media (Armstrong, 1981; Duncombe, 1997). The level of analysis and argumentation found in the alternative press for this study remained decidedly superficial with little substantiation.

For example, the Politics New Zealand blog, self labelled as the “Department of Personal Opinions” wrote bluntly that “mainstream are so unconscious that most fail to understand what is in these things and the rising tide of complications – it is all a scam.” This statement was made without any supporting evidence or argumentation. The author argued simply that “mainstream,” which could possibly be interpreted as the majority of society, was simply wrong.

There was widespread condemnation in blogs for authority figures and for the medical community. This critique suggests a Marxist praxis, which attempts to sever relevant circuits of capital. Throughout blog discourse, writers were actively trying to “transform existing social roles and routines by critiquing and challenging power structures” (Atkinson, 2006, p. 252). Yet, the level of critique again fell far short of an active, engaged challenge to mainstream structures of power. There was a social critique operating here, but without substantiation, the discourse failed to provide any legitimate, meaningful alternative. Critical, independent quality journalism is fundamental for an alternative media to successfully critique ideologies that legitimate domination (McChesney, 2007). A blogger named Alice Dee stated plainly, “I know what I know. [The medical community] really don’t know much, just text book.”

There are repeated instances of bloggers citing “a growing body of research” without any suggestion as to what that research might be. The New Zealand Anti-Vivisection Society blog writes, “in fact it has recently been discovered that side-effects were five times the number previously thought and one of these side-effects was a deadly blood disorder.” No substantiation is provided for
such a claim. Vitamin Arcade writes, “one doctor in America was offered $175,000 to swallow a sample of the vaccine but refused.” This factoid is placed along the left side of the website as a stand-alone bullet without any correlating information. After a litany of unsupported facts, a blog by a local media practitioner concludes with confidence, “surely the greatest danger facing children today is vaccination.” Vitamin Arcade circumvents any need of substantiation by writing “FACT: more people died of swine flue vaccination than the flu itself.” Since the blog presented this information as an unequivocal fact, the need for supporting evidence or argumentation is clearly unnecessary.

There are also several instances of assumptions in analysis that are asked and answered without support. For example, The NZ Single Parents Trust blog writes that vaccinations were “promoted so quickly with very little research being given to the public because of elections coming up last year.” The writer here is asserting a blatant subversive act from politicians for personal gain but does not canvass any politicians to support such a stance.

There were certainly several cases of bloggers who did offer some substantive support for their positions in writing, but they only rarely provided additional information in the form of hyperlinks for further information or extensive background data to substantiate a claim. For example, the Health Information Network blog, wrote that “vaccinations do not work!” and then quoted Dr. W. B. Clarke of Indiana as saying that “cancer was practically unknown until compulsory vaccination with cowpox vaccine began to be introduced.” There were no links provided to the work of Dr. Clarke or to information about the physician. An independent inquiry could not find any additional information about Dr. Clarke. However, more generally, there were no hyperlinks to any supportive information throughout the entire blog.

Even when a blog was written by a medical practitioner, the amount of substantive support was minimal. A blog called Healthonline, written by natural medicine practitioner, argued that infectious disease epidemics of 60 years ago have passed, but only because of “improved hygiene and housing.” He made these arguments without any hyperlinks to supporting information or to any peer-reviewed academic research. There was not even any personal, anecdotal support to this claim. Contrast that level of argumentation against a 4 September news article from The Press reviewing a Ministry of Health warning. The article cites the 95% decline in Hib disease after the introduction of the Hib vaccine in 1994 and, in a direct challenge to the debates surrounding improved living
conditions, the article goes on to state that “there were no changes in hygiene or housing over that same period of decline.”

The lack of substantiation found in alternative media was not replicated in the mainstream outlets. Quotes were directly attributed to health care representatives that were easily verified through independent searches. Prominent medical representatives, such as Dr. Johan Morreau, the Royal Australasian College of Physicians paediatrics chairman, were repeatedly sourced for information. The level of analysis found in blogs did not draw from professional sources, but given the independent nature of alternative media, one would not expect such a correlation. However, one would expect to find investigative support and critical exploration in the alternative press (Armstrong, 1981; Duncombe, 1997).

**In/dependency of reporting**

It has been argued that mainstream media maximize audiences through pack-journalism that is conventional and formulaic, which was the case in this study. News sources drew solely from official sources in their reporting. Online news articles often sourced public health leaders, such as the director of the Immunisation Advisory Centre, the Chief Advisor for Public Health, District Health Board Members, medical doctors, and the Ministry of Health. These same official sources were repeatedly quoted across all of the news sites included in this sample. The only instance of individuals sourced outside of the medical community was the solicitation of input from leaders of the Catholic Church in regards to the Human Papillomavirus (HPV). This virus is principally caused by girls having their first sexual encounter at an early age; having more than one sexual partner; or having a partner who has HPV. Leaders of the politically powerful Catholic Church, although outside of the medical community, still constitute an official source.

News stories across this sample were regularly repetitive, drawing from the same New Zealand Ministry of Health press releases and Organisation for Economic Co-operation and Development (OECD) statistics. A typical news story found in this sample would draw heavily from a Ministry of Health press release issued the previous day; insert quotations from official medical sources and then supplement the article with statistics from the OECD. These heavily-used sources in news reports were not found in any alternative blog.
In relying upon the same sources, the mainstream media also relied upon the same ideological perspective. In the *Dominion Post* on 21 July, the headline reads “parents ‘to blame’ for measles.” The word blame remains in quotes, which clearly attributes the statement to another source, but the prominence of its placement in the headline immediately signals the perspectives highlighted for the article. There were also repeated uses of “believe” in relation to parental perspectives and then statements of presumed fact in relation to representatives from the scientific community. Such language vilifies parents as unwitting dupes trapped by their own belief systems while the scientific community remains supported by irrevocable facts.

Alternative news sources, as the content analysis revealed, represented the issue rather monolithically in opposition to vaccinations. However, they did so by drawing from a much wider range of sources. Those selected as sources would still constitute an official standing – even if not immediately recognizable. For example, a blog titled Animal Research TAKES Lives, drew heavily from the little known N.Z. Official Yearbooks and the Appendices to Parliamentary Journals. These sources, which were drawn from a wide disparate range of material, appear representative of the independent reporting argued to be central to alternative media (Atton, 2002).

Government agencies, leaders of pharmaceutical businesses and district health boards were rarely asked for comment in the alternative press, principally because these individuals were seen as purposefully keeping secrets from the general population and simply could not be trusted. On 11 March, a blog from Scoop argued that these organizations were “working so hard to keep the truth about the mercury-autism link hidden” because “if they admitted guilt, it would mean the government agencies, drug companies and medical organizations, have taken part in the largest iatrogenic epidemic known to man.”

Alternative media offered stories not covered elsewhere, which has been found to be central to an independent press (Makagon, 2000). Blogs drew on events stretching over decades and from individuals located across several continents. In one instance, the New Zealand blog Animal Research TAKES Lives, presented a chart detailing the decline of measles in England, which appears to have started in 1918, a full “fifty years before the highly lucrative vaccination campaign.” One blog titled, It Will Pass, simply ran a long list of quotes from medical doctors and health practitioners that appeared to contradict the present need for vaccinations. Such an approach would likely not be used in the mainstream press due to strict normative rules around story structure. In this case, It Will Pass
slowly begins to intersperse quotations about population control in with vaccination quotes. The reader is left with the impression that the actual reason vaccinations are used is to reduce the population. For example, the first quote reads “the only safe vaccine is the one that is never used.” This statement is attributed to Dr. James R. Shannon, former director of the National Institute of Health. The last quotation is attributed to Robert McNamara and reads “One must take draconian measures of demographic reduction against the will of the populations. Reducing the birth rate has proved to be impossible or insufficient. One must therefore increase the mortality rate. How? By natural means. Famine and sickness.”

Communication exchange

There was one instance of news outlets soliciting input from readers in news content and also one instance of a New Zealand blog soliciting reader input. The *New Zealand Herald* asked for feedback to the question, “is vaccination the answer to preventing a measles epidemic?” There were twenty-six online pages of responses from readers.

While the response to the *Herald* question was certainly strong, there were no two-way patterns of communication between the writer of the original story and the reader. There were several instances of communication between commentators, but they often turned vitriolic. As Wall (2005) correctly argues, comments can work to form more of a ‘neighborhood bar’ than a Habermasian public sphere. There were indeed a few occasional insights, but, the scorn, cynicism, mockery and generally obnoxious statements made up the overwhelming majority of comments. One commentator named Growing Hope from Christchurch wrote “don’t worry if you have trouble with this concept. No one can fix stupid!” In response, surfbluedog wrote “I will no longer argue with people who cannot see past their noses.”

Certainly, the ability of ordinary citizens to post comments online is a radical departure from established mass media practices and the ability to post like-minded comments also may facilitate a sense of community online. Participating within a thread of commentary may resemble the previously predicted communication pattern that emphasizes viewers not only consume a mediated product, but also work to help create and construct the meaning of that product (Rheingold, 2002). However, one has to wonder what kind of community and what type of meaning is being created. The vitriol directed toward those who hold oppositional views may serve to coalesce the community by helping
to confirm what the majority of commentators believe to be right. Habermas (1989), who articulated
this notion of a public square, certainly argued that democracy can be messy. But, by almost any
definition, a self-assured, one-dimensional and oppositional fighting front does not equate to
democratic debate within a public sphere.

There were no instances of a communicative exchange between the original bloggers or
reporters and their readers. One might expect this in the mainstream media, whereby such divisions
are historically prominent. However, the lack of ability for readers to exchange information with
bloggers may also reflect what Herring et. al. (2004) labelled the ‘asymmetrical communication rights’
between bloggers and their audience, whereby bloggers “retain ultimate control over the blog’s
content” (p. 6). Such a low number of invitations to exchange information counters previous research
surrounding alternative media that found a strong capacity for “transforming spectators into active
participants of everyday dealings and events affecting their lives” (Tracy, 2007, p. 272). The potential
egalitarian relationship (Rodriguez, 2001) that can be formed between the media outlet and viewers
was not in evidence in this sample.

There were other instances of requesting further information from readers, but the request
was without any obvious means to reciprocate. For example, OpenUReyes writes, “if you have any
comments…I would be happy to answer any questions” but then does not post a link to contact the
author. There is no email address listed, no comment section, and no postal address.

**Professionalism in writing**

There was an obvious effort in blog content to subvert the “hierarchy of access,” (Atton, 2002)
through personalized reporting. This intimate conversation between the blogger and the reader was
representative of the personalized reporting found to be so central in alternative media (Atton &
Wickenden, 2005). Subversion of such a hierarchy was evident in the explicit distancing between the
reader (generally addressed as “you”) and all others who did not know what was best for your child
(them). A nutritional blog headline reads, “what they don’t tell you about vaccination dangers can kill
you or ruin your life.” Implicit in such a statement is that ‘they’ have been hiding information from you.
The reader may have historically been at the lowest rung of the information ladder, but will
presumably now be privy to information that has long been kept secret from the public. With the
knowledge about to be gleaned from this blog, the reader can circumvent traditional levels of power
and make new decisions based on knowledge not previously possessed. Another online blog, Off the radar, uses the headline “what they didn’t want you to hear” as their permanent masthead.

The alternative blogs sampled for this study also often relied on the first person when retelling a specific story. In a blog titled Beyond Conformity, the author repeatedly refers to herself as “I.” The author also relies on the personal narrative structure of retelling an event with detail in exact chronological order. For example, the author states “when I asked her why it was that she had solid immunity and her peers did not, she blinked, and said, “I never thought about that.” I replied, “No.” This excerpt reads more like a personal recounting of conversation rather than a professionalized news report written within the inverted pyramid style of distilling information.

In another alternative blog titled Lovelight: Holistic Health, the author retold a personal story of a woman who was “in a state of emotional turmoil, which she easily transferred to her child as she held him for vaccination.” Only after this women underwent a “Journey process” with the author personally, could the mother release the “many very deep-seated and very negative memories of traumatic events in her life.” After doing the Journey process, the author writes: “I spoke with the mother a week later and was told that the older son had totally changed.” Here, the author not only speaks in the first person, but is a central agent in the movement and action of this story.

Some alternative content is so personal that they are labeled as “open letters.” This was the case from openUReyes who writes an open letter to “all members of the New Zealand House of Parliament” and then flows personal emails sent from the author to several different recipients over the last year. This style of reporting is in direct contrast to news reports, which did not place the writer within the story in any way or write from the first person.

News reports relied on traditional norms of expository reporting. This style of writing was adhered to throughout this sample of news stories. Articles relayed information based on the perceived importance of the information to the reader in an effort to further describe or explain particular events. This approach was evident in broader narrative structure and more direct attempts at explanation. For example, relevant actors were introduced first by their affiliation and purpose toward the topic and then by their name. An article from 18 May in *The New Zealand Herald* reads “the Canterbury District Health Board’s (CDHB) project manager for the Gardasil vaccine, Alison Young, said…” Alternatively, Beyond Conformity begins their blog stating “since 1989, when IMAC became the Ministry of Health mouthpiece for all needling topics…” There is no introduction here as
to what IMAC might stand for, so one must assume a certain level of prior knowledge that may or may not be held by the reader. The New Zealand Anti-Vivisection Society also presumes previous knowledge when it writes that a “speaker at the WDDTY conference…” without detailing exactly the aim (or even the full name) of that conference. Thus, the open discourse seen in previous samples of alternative media (Ostertag, 2007) was not as readily apparent in this study.

Another aspect of professionalism or a lack thereof in terms of journalistic writing was the tendency of a source to encourage participation. Alternative media have been said to encourage social participation (Tracy, 2007), whereas the professionalized norms of journalism have been argued to prohibit the same kind of encouragement. This sample revealed very few instances of encouragement from both the alternative and mainstream press. In the instances and form of encouragement found, the direction depended entirely upon the source examined.

When participation was encouraged in the form of behavioural change, it was exclusively to get a vaccination if found in news reports or to abstain from vaccinations if found in blog content. Encouragement in mainstream outlets was much more obtuse than the direct challenges to change found in the alternative press. The mainstream Christchurch Press newspaper ran a story on the 4th of September, which stated that the “vaccine is fully funded for all infants aged six weeks, three months and five months, with booster doses at four years and 11.” In using the term ‘fully’ and then detailing out each of the opportunities government offers for reimbursement, there was an repeated implication here that the government are available for financial assistance. Therefore, the barriers for behavioural change were very low in this case and should therefore be pursued. The constant barrage of facts in support of vaccination imbued the reader with a sense of responsibility to make a behavioural change and pursue vaccinations.

In contrast, the Immunization Awareness Society of New Zealand blog wrote that parents should expose their child to measles “at an appropriate age so that their child may contract the illness and obtain natural immunity.” This direct argument for behavioral changes did not state specifically how to do expose a child to measles, the dangers in doing so, or even why one would do such a thing except to qualify that infected children would “obtain natural immunity.” However, as has been already stated, indirect or direct challenges for behavioural change were only very rarely found in both the alternative and mainstream press.
Discussion

Through the framework of Marxism, this research argued that in the case of vaccination discourse, blogs operated as hierarchically-determined sites of one-way communication promoting individualistically opportune behaviors contrary to the community-driven model of communication typically found in alternative media. In contrast, mainstream outlets promoted behaviors supportive of community well-being and had equal, but albeit low, levels of egalitarian communication exchange. Yet, how these media outlets communicated these divergent messages was complicated within a nexus of definitional characteristics coming from both the mainstream and alternative press. This study agrees with the recent trend in scholarship about alternative media, which has found that alternative media simply can’t be explained or understood without placing it in relation to mainstream media (Harcup, 2005). Therefore, research examined two samples in connection with each other to better understand the media landscape as a whole.

Mainstream media offered quite extensive substantiation for positions put forth in the text, but did so by relying on official sources, which has traditionally been the practice of professionalized journalism. Mainstream media also appeared to rely upon pack-journalism that was conventional and formulaic. News stories across this sample were regularly repetitive, drawing from the same press releases and statistics. Stories were written in the expository, professional style of an inverted pyramid. There was also very little requests for input from readers, which has traditionally been the case in mainstream media. Mainstream media also only rarely encouraged participation in mainstream content, although latent messaging through repeated statements of admonishment was evident.

Alternative media exerted a scathing, yet superficial, critique of corporate power blocks that relied upon very little in-depth social commentary to corroborate this oppositional discourse. Thus, the distrust of corporate interests existed but any investigative analysis fell far short of what has defined much of alternative media. Alternative media drew from a much wider range of sources than the mainstream news, although many of those examined in this sample would still constitute an official source. They also relied upon personalized reporting that was far more intimate than their mainstream counterparts although there was no meaningful request for a communicative exchange with readers in the alternative blogs sampled. There were also very few instances of direct encouragement for
behavioral change, which would not be expected given the history of alternative media as an agent of social change.

These findings complicate the notion of a clearly delineated alternative media, particularly as an example of Marxist praxis. Alternative media did not instigate a communicative exchange or directly encourage behavioural change. These findings are diametrically opposed to Marxist ideology that calls for confrontational changes through educated discourse. Perhaps, it was the narrative of alternative media that most challenged the idea of a Marxist alternative media. Relying on highly individualistic accounts directed toward personal gain, alternative media most closely represented traditional mainstream media, which have received notable scorn from the alternative press. While mainstream news reports consistently reminded the reader of how their own personal actions could benefit society, alternative media urged readers to look after their own interests. It should be noted that alternative media presumably made such claims based on their suspicions of corporate power. However, none of those suspicions were realized through rigorous examination on the part of alternative media and thus their level of argumentation was decidedly superficial.

This research suggests that perhaps the desire of independent media to subvert corporate interests (McChesney, 2007) may circumvent any traditionally held norms and practices within the alternative press. As the alternative and mainstream press continue to expand the ideological and practical distance from one another, the desire to expose each other’s weaknesses could likely become the central reason for being within each institution. This research supported Marx in his assertion that an alternative press should be “the tireless denouncer of those in power” (Marx & Engels, MEW, p. 231). However, in an effort to denounce corporate power, the blogs sampled here, usurped their previously held tenets of operation. This suggests that, at least in this sample, the organizational norms and practices of an institution can quickly be circumvented when the possibility of denouncing a core oppositional ideology arises.

A clear limitation to this study is the small sample size. Further research should expand both the sample size and the parameters for examination. A more detailed content analysis would be useful in making any future claims about alternative media. Further studies might also interview those preparing content in both the alternative and mainstream press to examine any barriers to publication that were not immediately apparent in this research.
More research examining the distinctions between different types of media are vitally important as technologies continue to create new communicative spheres. As this research shows, there is extensive overlap between what was once considered ‘alternative’ and ‘mainstream.’ The blogs in this sample critiqued mainstream corporate entities with mainstream ideology and practices through a far-reaching, once ‘new’ and ‘alternative’ medium. This research suggests that any definitional label of ‘alternative’ might be better placed on the medium itself and not the content.
Figure 1

Type of Online Source

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<th>Type of Online Source</th>
<th>Percent</th>
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<tbody>
<tr>
<td>News</td>
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<td>Blogs</td>
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<tr>
<td>Government</td>
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<tr>
<td>Academic</td>
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<td>Books</td>
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0 10 20 30

News Blogs Government Non Profit Academic Books Companies
Figure 2

Support/Against Vaccination

Percent

Support Against Neutral

Support/Against Vaccination
Support/Against Vaccination Within Online Source

Percent

Support/Against Vaccination Within Online Source
References


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