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Sustainable and Renewable Energy Development in Ontario: A look at the Current Policy Frameworks and Discourses Surrounding Sustainable Energy and Wind and Solar Power in Major Ontario Newspapers

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Abstract

Over thirty years ago we celebrated the first Earth Day, which has since marked the preservation and restoration of the environment. Ironically, since this re-dedication to environmentalism and renewed spirit in learning from the past we have worked to increase carbon emissions, oil consumption, natural gas, and coal extraction. Our "ecological footprint" has nearly tripled as a result of the growth of the global motor vehicle population, human carbon emissions and, of course, greenhouse gases and their partner global warming. The problem is not going to go away, and finding Canada's place within the policy paradigm of sustainable development and environmental awareness will not be easy. Juxtaposed against a divided federalist state, environmental policy falls under the jurisdiction of the provincial government in this country, making it increasingly hard to adopt a policy framework that not only works, but works consistently across this country's political, social and economic landscapes. The McMaster Journal of Communication Fall 2009 Volume 5, Issue 1 ISSN 1710-257X

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While renewable energy is not the magic bullet to sustainable development and *unlimited* growth, it offers a stepping stone towards a sustainable future for this country. Coupled with increased business and government spending on research and development alongside innovation a feasible policy framework can push Canada towards the totem of 'innovative nation', drawing from the right set of policies to protect and enhance the environment. The question remains, however, as to why environmental issues haven't had a greater influence on policy decisions and what types of increases in sustainable energy resources are viable? What is the appropriate role for government within this matrix? Business? And even the community? Does the answer lie in motivating lifestyle and consumption patterns or through a rejuvenation of venture capital and business investment in research and development? Have these issues been afforded a place on the public agenda and what, if any, alternatives are put forth? Drawing from a content analysis of 82 newspaper articles from both national and local dailies, the representation of sustainable development and renewable energy will be addressed and the extent to which changes have been made to public policy in light of these concerns.

Literature Review *Method*

Briefly content analysis is the "systematic, objective, quantitative analysis of message characteristics," and should be differentiated from more qualitative analytic methods including rhetorical analysis, narrative analysis, discourse analysis, semiotic analysis, critical analysis and normative analysis (Neuendorf, 2002:1, 5-8). The technique is primarily message-centred, relying on the scientific method of objectivity and intersubjectivity with an emphasis on a priori research design, reliability, validity, generalizability, replicability and hypothesis testing (Neuendorf, 2002:10-13). Both manifest and latent content can be measured, with the former elements being "physically present and countable" (Gray & Densten, 1998 in Neuendorf, 2002:23) and the latter "represented or measured by one or more [...] indicators" (Hair et al, 1998 in Neuendorf, 2002:23).

Klaus Krippendorff defines content analysis as "a research technique for making replicable and valid inferences from data to their context," emphasizing the scientific model by definition (1980:21). The author highlights the fundamentally empirical orientation, exploratory nature, concern with real phenomena, and predictive intent of content analysis and its purpose to "provide knowledge, new insights, a representation of 'facts,' and a practical guide to action" (Krippendorff, 1980:9, 21). The task in any content analysis is to make inferences from data, identifying patterns or trends relative to certain aspects of their context. These inferences are justified against knowledge about the "stable factors in the system of interest" (Krippendorff, 1980:27). Through this process data becomes recognized or rendered informative about something of interest to the analyst. Likewise, Neuendorf describes the goal of any quantitative analysis as "to produce *counts* of key categories, and measurements of the *amounts* of other variables," taking the viewpoint that this is a numerical process deriving from empirical observation (2002:14).

Put into practice, Porismita Borah in "Examining media content: A case study of newspaper coverage of dowry in India, 1999-2006" draws on a selection of two national newspapers and two top regional newspapers to examine the prominent frames used by newspapers in their coverage of dowry in India (2008). Selection was based on the most widely circulated papers reaching the maximum number of audience members. All 4058 articles included in the study were pulled using the Lexus/Nexus database, with the unit of analysis being the paragraph (Borah, 2008:386). A random sample of 10% of the total population of newspaper stories was coded to assess inter-coder reliability (Borah, 2008:386). Three independent coders were used in this study and inter-coder reliability was calculated using Cohen's *Kappa*. Inter-coder reliability was established at 93.4%, proposing "excellent agreement beyond chance" (Neuendorf, 2002:143).

Looking to the work of Scott Uzelman et al. in "Covering Democracy's Forum: Canadian Press Treatment of Public and Private Broadcasting", the authors draw on a content analysis of "Canadian press coverage of public service and private broadcasting conducted by NewsWatch Canada" (2005:156). Surveyed were three of the most widely-read newspapers across Canada: The Globe and Mail, National Post, and Toronto Star. Pulling from two newspaper databases, NewsWatch Canada researchers looked at 79 randomly selected articles published between 30 June 1999 and 20 June 2000 (Uzelman et al., 2005:160). Because the study was taken from a larger pilot study on Canadian press coverage of media issues, inter-coder reliability was not listed, nor the method used to calculate inter-coder reliability, the number of coders used or databases from which articles were pulled (Uzelman et al., 2005:164).

Defining Sustainable Development

The first issue to address is what sustainable development entails and how renewable energy fits in, as well as the implications this definition has on what strategies are pursued and implemented along the path to sustainable and renewable energy development. Over the last two decades sustainable development has emerged as the latest developmental catchphrase. As a range of governmental and non-governmental organizations have embraced the concept it has become the new paradigm of development (Sharachchandra, 1991:607). There has been a shift from concerns as to whether developmental and environmental concerns contradict each other, to strategies around how sustainable development can be achieved (Ibid.). Taken broadly, the World Commission on Environment and Development (the Brundtland Commission) defines sustainable development as "development that meets the needs of the present without compromising the ability of future generations to meet their own needs," drawing on human needs and the quality of human life as essential elements of development (Canada, "What is Sustainable Development"). Narrowing in on the relationship between social and environmental phenomenon, Sharachchandra creates a dichotomy between the objectives of this process and the means of achieving these objectives, (1991:609) linking the concept of sustainability to renewable resources and the notion that "people-centred initiatives are needed" (Tolba, 1984a in Sharachchandra, 1991:609 & 611).

Daly in his article "Toward Some Operational Principles of Sustainable Development" draws a line between sustainable growth and sustainable development, stating "[to] grow means 'to increase naturally in size by the addition of material through assimilation or accretion". To develop means 'to expand or realize the potentialities of; bring gradually to a fuller, greater, or better scale" (1990:1). Thus, development entails the improvement or unfolding of potential on a qualitative scale. Taking into consideration Daly and Sharachchandra's conceptions of sustainable development as the core operational principles it can be concluded that the concept entails the adoption of people-centred initiatives in order to improve and expand to realize potentialities; and taken in the context of renewable resources or renewable energy ensures a degree of sustainability in the means to achieve these objectives.

Popular Press Sources and Mainstream Issues

Turning to more mainstream issues surrounding sustainable development and renewable energy it becomes evident that "Canada needs to get with the program" (Castaldo, 2008:32). Joe Castaldo in his piece "Out of Juice" identifies the gap between Canada and Europe, primarily Germany, in conversation with Ian MacLellan, founder and chief technology officer of ARISE Technologies (2008:32). ARISE manufactures 35 megawatts of solar cells each year in Bischofswerda, a town in eastern Germany, far from MacLellan's home in Waterloo, Ontario. Building a renewable energy industry in Canada is far from the horizon as Canada continues to fall farther and farther behind, losing out on not only international success and the environmental benefits, but "also on job creation and the chance to become an exporter of renewable-energy technology" (Castaldo, 2008:32). The author identifies a key myth central to debates around sustainable development, in that by doing what's right for the environment, you hurt the economy, moreover the theory of limited growth under the context of sustainable development (Castaldo, 2008:32).

Canada's plight to adopt a sustainable development policy framework and renewable energy industry becomes evident as the old policy problems of the 1970s to 1990s surface in the form of more fundamental things to change. Echoed by co-founder of solar module manufacturer Day4 Energy in Burnaby B.C., John MacDonald comments that "[renewable] energy will be the future of energy [and that ...] there is always money to be made when fundamental things change" (Mac-Donald cited by Castaldo, 2008:34). Canada has yet to make major policy changes in this respect. As world leader in renewable energy development the German government has made a serious push for alternative energy (Castaldo, 2008:34). Beginning in 2000 the Renewable Energy Resources Act began to implement feed-in tariffs, offering a "guarantee that any company producing renewable electricity can distribute it on the grid, and utilities will buy the power at a premium," (Castaldo, 2008:34) something Canada has only begun to experiment with through the Standard Offer Program and Renewable Energy Standard Offer Program as of 2006. As a result solar and wind energy developers have flocked to Germany, with the photovoltaics sector generating £5.7 billion in revenue in 2007, employing 250,000 people in alternative energy (Castaldo, 2008:34). What are the incentives for alternative power producers to stay in Canada? Well, they are slim. Even states south of the border are giving incentives through tax credits and subsidies. Case in point, Portland, Oregon offers a tax credit of 33%, allowing producers to recoup some of the costs of deploying a prototype attracting both companies and intellectual capital, something Canadian governments have been pushing for yet lack motivation (Castaldo, 2008:36). Although Ontario implemented a feed-in tariff program in 2006 through the Standard Offer Program or Renewable Energy Standard Offer Program, limitations come in the form of an inadequate and technically redundant Ontario power grid. Additionally, the amount of power that can be generated from renewable energy under the program is capped at 1,200 megawatts stalling both future development and interest on part of other provinces to implement a similar measure (Castaldo, 2008:38).

Other concerns surrounding sustainable development and renewable energy are proposed by Rachel Pulfer in her article "Mr. Clean" (2008). She identifies Canadian Nicholas Parker as being "at the forefront of a low-carbon, high-profit technology movement" (Pulfer, 2008:74). His philosophy that "the most powerful lever of change is actually through business" is expanded on the basis that venture capital is the key to generating research and development to bring down the costs of renewable technology and foster innovation through design (Parker cited by Pulfer, 2008:77). Mr. Parker highlights the fact that "it's technologies that deliver more bang for the buck – at less cost to the planet," striking a chord between business, renewable energy, and profits (Parker cited in Pulfer, 2008:77). The need to get private equity involved comes with the \$800 billion dollar price tag attached to converting the US electricity grid into a smart grid, (Parker cited in Pulfer, 2008:80) a task even more daunting for Canada in light of investors flocking south of the border to cash in on tax credits and subsidies. The challenges are endless, and Canada has yet to identify a clear policy framework for sustainable development and an alternative energy industry.

Donald J. Johnston in his piece titled "This is Not Going to Go Away" identifies the need for "concrete solutions aligning political imperatives such as growth and jobs with environmental protection" (2008:74). He debunks the myth that economic growth and sustainable development are not compatible, advocating just the opposite in his statement that "environmental health and economic growth [are] not only compatible, but more growth and jobs could flow from the right set of policies to protect and enhance the environment" (Johnston, 2008:74). Looking at all three articles discussed it is evident that three distinct yet integrated policy ideas are presented. Joe Castaldo identifies feed-in tariffs as the key mechanism to generating an alternative energy industry and crucial to luring producers to set-up shop in Canada. Additionally, Pulfer expands on this in conversation with Nicholas Parker and his philosophy that business is the most powerful lever of change and through venture capital and private equity the foundations can be laid to bring down the costs of renewable technology and foster innovation through design. Johnston concludes the final phase in this framework by aligning political imperatives with environmental protection. Creating an economy that is both innovative and environmentally sustainable is all the more reason for political leaders to start tuning up their engines.

Theoretical and Environmental Policy Perspectives

Spaargaren in his article "Sustainable Consumption: A Theoretical and Environmental Policy Perspective" outlines the importance of the role of citizens in shaping and reproducing "some of the core institutions of production and consumption," arguing that social practices are the proper unit of analysis for researchers and policy makers (2003:687-8). He puts forth the sociological model, highlighting the "possibilities for designated groups of actors to reduce the overall environmental impacts [...] through green lifestyles" (Spaargaren, 2003:688-9). Taken more broadly, the sociological model adds a social dimension to the technical criteria of sustainable development and renewable

energy and creates a sense of "individual responsibility for environmental social change" (Ibid., 690). The article outlines the social relations that "accompany the application of sustainable technologies at the [local] level," concluding that "the greening of [local] consumption cannot be properly understood by looking into the technology in an isolated way [... but the] development, diffusion and application of sustainable technology devices [...] against the background of the broader societal dynamics in utility provision and consumption" (Spaargaren, 2003:694). This takes into account broader, more participatory forms of policy making as well as the social dynamics involved with utility provision and consumption.

Conversely, Liming et al. in "Public policy discourse, planning and measures toward sustainable energy strategies in Canada" situates Canada within the international matrix of sustainable development (2008). Environmental policy initiatives have been limited in the context of sustainable development and renewable energy as Canada has become increasingly reliant on greenhouse intensive fuels, with the most dominant fuel source being brown coal used for electricity generation (Liming et al., 2008:93). Following suit is oil which comprises 30% of the fuels used in Canada, primarily for transportation, with natural gas comprising 19%, both for electricity generation and direct use in homes and businesses (Ibid.). The authors highlight the "urgent need for analyzing current strategies of sustainable energy in Canada and examining the issues of these strategies" (2008:92). They tie sustainable development to sustainable energy strategies with the aim of "improving energy efficiency and promoting renewable energy" (Liming et al., 2008:92).

In relation to other industrialized countries, Canada has made little use of wind and solar power. Looking back to 2004, Canada's installed wind capacity was 341 megawatts (MW), compared to 13,407 MW installed by late 2003 in Germany (Liming et at., 2008:91). Solar panels and photo-voltaic technology are only beginning to find niche applications in Canada; as well the country's current small-scale hydroelectric capacity is only about 2000MW (Ibid.). Being a signatory to the Kyoto Protocol, Canada has committed to reducing greenhouse gas (GHG) emissions to 6% below 1990 levels by 2008-2012, however developing a clear policy framework to meet Kyoto targets has challenged both the Canadian government and energy industry. The country is in need of more effective strategies for speeding the development of sustainable energy to limit greenhouse gas emissions, as "nearly 90% of all anthropogenic GHG emissions [...] result from the production and consumption of fossil fuels," being one of this country's major energy sources (Liming et al., 2008:92). The limitations to development are obvious.

Looking back to the strategic objectives of sustainable development in the 1970s and early 1990s the focus was on improving energy efficiency which was undertaken by the Government of Canada as a policy to "advocate and promote changes to behaviour and lifestyle to reduce the consumption of energy through encouraging people to turn down their thermostats and to turn off unnecessary lighting" (Liming et at., 2008:95). Similarly in the 1990s as growing concerns worldwide about the burning of fossil fuels and the associated greenhouse gas emissions began to surface the federal gov-ernment re-emphasized improving energy efficiency. Promoted was a wiser use of energy, rather than major changes to lifestyle and consumption patterns. The challenges facing today's government rest on shifting away from the discourse of energy efficiency to an alternative energy industry. This boom has been evident throughout most of Europe and several American states, however Canada's renewable power surge has been flickering. Returning to Spaargaren's hypothesis highlighting the sociological model and the "possibilities for designated groups of actors to reduce the overall environmental impacts [...] through green lifestyles" (2003:688-9) it becomes evident that there are competing strategic objectives of sustainable development, both focused on consumption and lifestyle patterns and the development of an alternative energy industry.

Renewable Energy Overview

Ontario is currently at a crossroads: "the province can either continue to rely on polluting sources to generate electricity and meet the province's demands for heating and cooling, or it can invest in the development of a reliable and sustainable system based on renewable energy and efficiency" (Etcheverry et al., 2004:8). In developing an array of renewable energy sources across the province power loss can be reduced, and an increased sense of reliability and flexibility of Ontario's electricity system maintained (Etcheverry et al., 2004:8). As this paper focuses primarily on wind and solar power the following sections will provide a brief overview of how each technology works.

How wind power works

In recent years wind has become the fastest growing source of renewable energy launching Denmark and Germany into the international spotlight as world leaders in the wind industry, supplying 20% and 4% of the country's electricity demand respectively (OSEA, "Why Community Power"). Wind power works on the principle that "[air] is a fluid comprised of gaseous particles, and since particles have mass, they exert kinetic energy when in motion" ("How Wind Power Works"). With the application of wind turbines this energy is converted into a more useful form. Turbines are connected to a generator, so when the wind comes in contact with a turbine it forces it to turn, and the rotational energy is converted into stored energy (Ibd.). To collect large amounts of energy, wind farms have to be established, utilizing a mass of turbines. Within Ontario there is great potential for large-scale wind power generation (Etcheverry et al., 2008:13). Estimates place the "technically achievable wind resource in Southern Ontario [at] 86 terawatts-hour (TWh) annually, or about 58% of current provincial consumption" (Ibid.). Additionally, based on European experience, Ontario could install "as much as 8,000 MW of wind-generating capacity by 2012 [...] about 10% of current consumption" (Etcheverry et al., 2004:13).

How solar power works

Solar power has proven to be one of the most promising forms of renewable energy as the sun continuously outputs immense amounts of energy. Looking to surveys of the world's solar photovoltaic (PV) market, growth rates of upwards of 30% have become an established trend leading to the downward momentum in grid-connected photovoltaic prices (Etcheverry et al., 2004:14). Solar power works through solar cells, converting sunlight into energy, also known as photovoltaic cells ("How Solar Power Works"). Based on the principle that "matter emits electrons after absorbing electromagnetic radiation, [including] light from the sun," the electrons can then be released and harnessed as usable energy; this being the property that makes solar power possible (Ibid.). For larger applications photovoltaic modules are required, comprising of several solar PV cells linked together. Supportive policies for solar in Ontario could, in theory, "install 1,263 MW of PV systems; 800,000 solar domestic hot water systems; 120,000 solar pool heaters; solar passive design in 420,000 new homes; 2,000,000 m² of commercial and institutional solar hot water systems; and 825,000 m² solar air ventilation systems" (Etcheverry et al., 2004:14). The technically feasible potential of the combined energy output of these systems by 2025 could supply the equivalent power provided by coal in 1999, or "about half the electricity generated by all of Ontario's nuclear power plants" (Ibid.).

Research Questions

The question remains as to why environmental issues haven't had a greater influence on policy decisions and what types of increases in sustainable energy resources are viable? What is the appropriate role for government within this matrix? Business? And even the community? Does the answer lie in motivating lifestyle and consumption patterns or through a rejuvenation of venture capital and business investment in research and development? Have these issues been afforded a place on the public agenda and what, if any, alternatives are put forth?

Methodology Study design

This study employed a content analysis of newspaper articles to address the representation of sustainable development and renewable energy and the extent to which changes have been made to public policy in light of these concerns. Neuendorf briefly defines content analysis as the "systematic, objective, quantitative analysis of message characteristics," primarily centred on messages and relying on the scientific model of objectivity and intersubjectivity (2001:1, 10-11). Three independent coders were trained, however inter-coder reliability was not calculated.

Sample

Two national newspapers, Canada's largest daily newspaper and five additional local dailies were selected from the sampling universe of all Ontario papers. The top two national newspapers were *The Globe and Mail* and *National Post*, followed by *The Toronto Star*, and five local dailies including *The Financial Post, Hamilton Spectator, London Free Press, the Ottawa Sun* and *Toronto Sun*. The *Globe* and *Mail* is generally perceived to be centralist in political perspective, contributing the second highest number of articles to the study, and the *National Post* conservative, contributing the least tied with the *Ottawa Sun*. The *Toronto Star* contributed the highest number of articles and is generally considered to be left-liberal. Using a selection of national newspapers, the most widely-circulated local daily newspaper in Canada and an assortment of local dailies means that the information reaches the maximum number of audience members. Additionally, these newspapers give different perspectives on issues pertaining to sustainable development and renewable energy.

All articles selected mentioned a combination of the words 'sustainable energy' and 'wind or solar power' at least once within the article, from the period beginning 1 January 2003 to 31 December 2007, and were collected using the Lexus/Nexus database. The unit of analysis for this study is the article, and the unit of measurement is the article text and key words.

Data Analysis and Discussion

A sample of 82 articles were surveyed with the *Toronto Star* (n=47) contributing the highest number of articles, followed by the *Globe and Mail* (n=12), *Hamilton Spectator* (n=9), *London Free Press* (n=5), and *Financial Post* (n=3). *The Toronto Sun* (n=2), *Ottawa Sun* (n=2) and *National Post* (n=2) tied for least number of articles surveyed.



Looking at the number of articles by paper and year you can see that there have been a consistent number of articles published by all papers from 2003 to 2007 dealing with issues of sustainable development and wind or solar power, excluding the Toronto Star, which peaked at 13 articles during 2006 and 2007, rising from an average of 7 articles per year over the previous three years. For some papers there were no articles published during a given year on issues of sustainable development and wind or solar power. It should again be noted that the majority of articles surveyed in this study were published by the Toronto Star.



Number of Articles by Paper and Year

The following sections are divided according to the coding categories used in the code book, the first of which being "issues prevalent in the media concerning sustainable development and renewable energy".

Issues Prevalent in the Media Concerning Sustainable Development and Renewable Energy

The word "sustainable" was referenced in each article surveyed, and linked to a number of issues ranging from sustainable living and development to energy, resources and power generation. Looking at the chart below you can see that the number of references by year fluctuated very little from

paper to paper, again with the exception of the *Toronto Star*. *The Star s*tarted high at 13 references in 2003,



dropping to 10 in 2005 and shooting up to 21 in 2006, the same year that the Renewable Energy Standard Offer Program or Standard Offer Program was implemented (to be discussed in subsequent sections). It is interesting to note that during this same year the number of "sustainable" references declined in all other newspapers relative to the previous year's numbers.

Table 1 highlights the focus of newspaper coverage on issues linked to "sustainability", drawing attention to the issues most emphasized in bold. Most newspaper articles emphasized the same issues linked to sustainable living, energy, resources, power generation, development, technology, building, business, the opportunities presented in favour of sustainable development, and growth of the economy. Looking at each newspaper from 2003 to 2007 there are a number of issues that stand out. The *Globe and Mail* highlights sustainable energy in 2004, again touching on this issue in almost every other year surveyed with the exception of 2006, having published the lowest number of related articles that year. Energy and sustainable development were highlighted in the *Financial Post* over the course of 2003, however this was the only year that any articles were published in relation to sustainable energy and wind or solar power. The Spectator highlighted a variety of issues related to sustainability but only emphasized development in 2006.

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Year	Globe & Mail	Financial Post	Hamilton Spec- tator	London Free Press	National Post	Ottawa Sun	Toronto Star	Toronto Sun
2003	Energy, De- velopment, SEA	Energy, Devel- opment					Living, Energy, Resources, Power Gen- eration, Development	
2004	Energy		Living, De- velopment, Communities, Opportunities	Energy			Living, Energy, Power Gen- eration, De- velopment, Technology, SEA	

Table 1 Focus of Newspaper Coverage on Issues Linked to "Sustainability"

2005	Living, Energy, Development, Infrastructure	Living, Re- sources	Energy	Programs	Development	Living, Energy, Development, Building, Economy	
2006	Development	Development	Energy			Living, Energy, Growth, Busi- ness, Tech- nology, De- velopment, Environment	Energy
2007	Building, En- ergy Projects/ Sustainable Energy	Power Gen- eration, En- ergy Future	Power Genera- tion, Energy	Products	Products	Living, Devel- opment, Products, SEA, Economy	Energy

Note: Issues listed in **bold** were highlighted across a range of articles from that paper during the given year. Blank rows indicate that there were no articles surveyed from that paper during the given year.

The London Free Press was overall consistent in the issues related to sustainability, highlighting sustainable energy across the board alongside power generation in 2007. The National Post only having published two related articles was not consistent in the issues related to sustainability, highlighting programs and products in 2005 and 2007 respectively. This trend was mirrored by the Ottawa Sun, however development and products were highlighted during those same years. The issues presented in the Toronto Star are of greatest interest, representing 57% of the articles surveyed. In 2003 sustainable energy, resources, power generation and development were emphasized; again development was emphasized in 2004 alongside sustainable living. Sustainable energy appeared fairly consistently across the board, and was emphasized throughout 2004 and 2005. Living made an appearance twice both in 2004 and 2007, while sustainable products were only emphasized in 2007. The Toronto Sun was consistent in both 2006 and 2007 in highlighting sustainable energy.

The chart below indicates the number of "wind" references by paper and year, and it is interesting to note that the pattern displayed here is quite the opposite when compared to the number of issues related to sustainability. The greatest fluctuations are seen in the *Globe and Mail, Hamilton Spectator* and *Toronto Star*. Again it is important to note that the greatest number of articles surveyed came from the *Star* followed by the *Globe*.



Number of "Wind" References by Paper and Year

Table 2 highlights the focus of newspaper coverage on issues linked to "wind power". Looking at the results, wind turbines are emphasized across the board with the benefits of wind power and power/power projects following suit. The data emphasizes the factual nature of renewable energy in that the greatest emphasis is on the technology itself, the turbine. Looking to 2006 the Standard Offer Contract is only briefly mentioned, surprisingly considering Ontario was the first province to adopt the policy framework in Canada, although lagging far behind Germany and Denmark. Additionally, it is interesting in that research and development was only highlighted once in 2005 by the Ottawa Sun considering the attention received by more mainstream literature.

	Table 2 Focus of Newspaper Coverage on Issues Linked to "Wind Power"							
Year	Globe & Mail	Financial Post	Hamilton Spectator	London Free Press	National Post	Ottawa Sun	Toronto Star	Toronto Sun
2003	Turbines, Benefits, Farms	Turbines, Negative Effects, Power					Turbines , Energy alter- natives, Farms, price	
2004	Turbines, Sustainability		Turbines , Benefits	Turbines			Turbines, Sustainabil- ity, Benefits	
2005	Turbines, Benefits		Turbines, Benefits	Turbines, Benefits	Turbines	Turbines, Re- search and Development	Turbines, Benefits	
2006	Turbines		Turbines	Turbines			Turbines	Energy
2007	Farms, Power		Power	Turbines	Power	Turbines	Turbines, Power sec- tor/Projects, Benefits, patterns, natural winds, Stan-	Energy

^{2003 2004 2005 2006 2007}

Offer dard Contract. receiving increased attention

Note: Issues listed in **bold** were highlighted across a range of articles from that paper during the given year. Blank rows indicate that there were no articles surveyed from that paper during the given year.

The number of "solar" references is graphed below, and widely differs from sustainability and wind power. The Toronto Star seems to be the most relevant newspaper, steadily increasing the number of solar references from 2003 to 2007. In both the Globe and Mail and Toronto Star solar power is mentioned over the course of each year surveyed, and has received little attention from the other publications.



Number of "Solar" References by Paper and Year

Table 3 highlights the focus of newspaper coverage on issues linked to "solar power", and again the data emphasizes the factual nature of renewable energy in that the greatest emphasis is on the technology itself, solar panels or photovoltaic cells. The Toronto Star is the only paper to emphasize solar farms and power projects; this is in reference to the Community Power Fund established in 2007 (to be discussed in subsequent sections).

	Table 3 Focus of Newspaper Coverage on Issues Linked to "Solar Power"							
Year	Globe & Mail	Financial Post	Hamilton Spectator	London Free Press	National Post	Ottawa Sun	Toronto Star	Toronto Sun
2003	Panels or Photovoltaic cells, tech- nology not relevant	Panels or Photovoltaic cells, Nega- tive Effects, Industry					Panels or Photovoltaic cells, En- ergy alter- natives, Price	
2004	Panels or Photovoltaic cells, Sus- tainability, Jobs		Panels or Photovoltaic cells, Bene- fits	Panels or Photovoltaic cells			Panels or Photovoltaic cells, Sus- tainability, Lack of	

						Interest, Solar Heat- ing	
2005	Panels or Photovoltaic cells, Bene- fits	Panels or Photovoltaic cells, Bene- fits	Panels or Photovoltaic cells, Bene- fits	Panels or Photovoltaic cells	Panels or Photovoltaic cells, Re- search and Development	Panels or Photovoltaic cells, Bene- fits	
2006	Panels or Photovoltaic cells	Panels or Photovoltaic cells	Panels or Photovoltaic cells			Panels or Photovoltaic cells, Bene- fits, Energy	Panels or Photovoltaic cells
2007	Panels or Photovoltaic cells	Panels or Photovoltaic cells, Power	Panels or Photovoltaic cells, Power	Power	Panels or Photovoltaic cells	Panels or Photovoltaic cells, Bene- fits, Farms, Energy, Technology, Pow- er/Power Projects, Systems	

Note: Issues listed in **bold** were highlighted across a range of articles from that paper during the given year. Blank rows indicate that there were no articles surveyed from that paper during the given year.

Importance of Issues, Context of Mention, Language Used and Connotative Value

The second coding category is "importance of issues, context of mention, language used and connotative value". The context of mention refers to the general context in which each article is written. Lifestyle and sustainable living represented the tone of 41% of newspaper articles surveyed, with business and corporate interests and research and development coming in second. Economic advantages and technology not being available to citizens came in a close third, reiterating the literature on aligning political imperatives with environmental protection to foster the creation of jobs, intellectual capital and investment. The context of mention has not been displayed according to year, as the number of articles coming from each paper fluctuates and the dominant tone of each paper presents a bias in favour of one context.



The connotative value of issues discussed was overtly positive and rose steadily from 2003 to 2007. This indicates that the issues that have made their way to the public agenda had been well received.



Table 4 outlines the positive and negative values of issues discussed by paper and year. Overall sustainable energy and wind and solar power were given a positive spin, being praised as beneficial for citizens and homeowners and providing increases in energy efficiency. However, there is still the lingering discourse of energy efficiency as discussed in the literature, and not a shift towards developing an alternative energy industry.

	Table 4 Positive and Negative values of issues Discussed							
Yea	Globe & Mail	Financial	Hamilton Specta-	London Free	National Post	Ottawa Sun	Toronto Star	Toronto Sun
r		Post	tor	Press				
2003	Beneficial for citizens/ homeown- ers, Profit- able for business interests, Increases in	Beneficial for citizens/ homeown- ers, Unfa- vourable, Scepticism or uncertainty					Beneficial for citizens/ homeown- ers, In- creases in Energy Effi- ciency, Po-	

Table 4 Positive and Negative Values of Issues Discussed

Harper. Sustainable and Renewable Energy Development ...

	energy efficiency					tential job market	
2004	Beneficial for citizens/ homeown- ers, Poten- tial job market, Increases in energy	Beneficial for citizens/ home- owners, Poten- tial job market, Growth of the economy				Beneficial for citizens/ homeown- ers, In- creases in energy efficiency	
2005	Beneficial for citizens/ homeown- ers, Growth of the economy, Increases in energy efficiency	Beneficial for citizens/ homeowners, Growth of the economy, Prof- itable for busi- ness interests, Increases in energy effi- ciency	Beneficial for citizens/ homeown- ers, Growth of the economy, Potential job market, Profitable for business interests, Increases in energy efficiency	Growth of the Econ- omy, Po- tential job market, Profitable for business interests, Increases in Energy efficiency	Unfavourable Skepticism/ uncertainty	Beneficial for citizens/ homeown- ers, Growth of the Economy, Potential job market, Profitable for business interests, Increases in energy efficiency	
2006	Beneficial for citizens/ homeown- ers, In- creases in energy efficiency	Beneficial for citizens/ homeowners, Increases in energy effi- ciency, Growth of the econ- omy, Potential job market, Profitable for business inter- ests	Beneficial for citizens/ homeown- ers, In- creases in energy efficiency			Beneficial for citizens/ homeown- ers, In- creases in energy efficiency, Profitable for business interests, Unsuitable for general popula- tion/ aver- age home- owner	Beneficial for citizens/ homeown- ers, In- creases in energy efficiency
2007	Beneficial for citizens/ homeown- ers, In- creases in energy	Increases in energy effi- ciency, Pre- carious/ risky investment, Skepticism of	Beneficial for citizens/ homeown- ers	Beneficial for citizens/ homeown- ers, Profit- able for business		Beneficial for citizens/ homeown- ers, Growth of the economy,	Unfavour- able, Higher taxes, Skep- ticism/ un- certainty

efficiency,	uncertainty	interests	Increases
Growth of			in energy
the econ-			efficiency,
omy			Profitable
			for business
			interests,
			Higher
			taxes, Pre-
			carious/
			risky in-
			vestment,
			Skepticism/
			uncertainty

Note: Issues listed in **bold** were highlighted across a range of articles from that paper during the given year. Blank rows indicate that there were no articles surveyed from that paper during the given year.

Metaphor was only used in 1% of the articles surveyed, and compared renewable energy to sushi in that Canada is reluctant to make substantial efforts to incorporate such technologies and has traditionally shied away from the opportunity. The information presented in the articles surveyed was very factual, which is also reflected by the issues linked to both wind and solar power. This can also be related to the lack of policy initiatives and sustainable energy strategies in that there can be a large amount of rhetoric surrounding public policy; however, in this case the information is displayed in an empirical and straight-forward manner.



Political References and Actors

The third and final coding category is "political references and actors". This category included the mention of public policy, political parties, the Minister of Environment and Minister of Energy, as well as the Sustainable Energy Association, vested business or corporate interests and citizen ac-



tivist groups and other non-governmental bodies.

Mention of public policy was rather limited from 2003 to 2007 across the articles surveyed from each paper, however there was a general incline over the 5 year span. From 2003 to 2005 the context was generally in relation to the Kyoto Protocol and the ability or *inability* of Canada to meet its targets. From 2006 to 2007 there was a shift towards the Renewable Energy Standard Offer Program (RESOP) or Standard Offer Program (SOP), the Feed-in Tariff (FIT) Program and the Community Power Fund (CPF) spearheaded by the Ontario Sustainable Energy Association. The following section outlines the CPF and RESOP or SOP and FIT Program.

The Community Power Fund Aims and Scope

The Community Power Fund (CPF) supports community-owned renewable energy in Ontario through the provision of both technical and financial support to communities working to develop, build and own renewable energy projects across the province. The CPF is set to operate for 3.5 years from August 2007 until the end of 2010 using a number of financing instruments to support community power from grants and loans to investment equity. The government of Ontario has provided \$3 million in seed money to operate the program during this initial phase. The Fund's emphasis lies in supporting projects that represent a diversity of communities, goals, organizational models and technologies. The CPF strives to provide funding to projects that can identify and show proof of a fairly clear path to success, giving priority to geothermal, small hydro, solar thermal, photovoltaic and wind power over and above biogas. The Fund helps to ensure that community power groups have access to the needed funding to carry out the key activities required to secure a Standard Offer Contract from the Ontario Power Authority, guaranteeing them a fixed long-term price for the renewable energy they generate (OSEA, "Advocacy: Community Power Fund").

Ontario's (Renewable Energy) Standard Offer Program

The Community Power Fund works alongside Ontario's Standard Offer Program (SOP) which "helps Ontario meet its renewable energy supply targets by providing small electricity generators a standard pricing regime and a streamlined process" (Ontario Power Authority, "Ontario's Standard Offer Program/Renewable Energy Standard Offer Program"). The Renewable Energy Standard Offer Program (RESOP) was introduced on 22 November 2006 with intentions to removing obstacles for smaller renewable projects, offering 11.08 cent/kWh for water power, wind and biomass, and 42 cent/kWh for solar power over a 20 year term. With the introduction of the Green Energy Act on 23 February 2009 all renewable energy projects now fall under the umbrella of the new Feed-in Tariff (FIT) Program, also referred to as Advanced Renewable Tariffs (Gipe, 2007 and Ontario Power Authority, "Program Update: RESOP Program Update") . FIT carries the same working principles as the previous RESOP, however places a greater emphasis on First Nations, Métis and community-based projects moving in line with the established inclusiveness of the Community Power Fund (Ontario Power Authority, "Feed-in Tariff Program"). While the Community Power Fund works in along with the Renewable Energy Standard Offer Program and new Feed-in Tariff Program, providing financial support for the development of renewable energy projects from project design and implementation to the more advanced stages of development, RESOP and the newer FIT Program secure the success of each project through fixed long-term Standard Offer Contracts.

The mention of policy was grouped as neutral, positive or critical. Looking at the graph below it is clear that in 2003 and 2004 mentions were overtly critical, this primarily being a result of criticisms directed toward the federal and provincial governments and their inability to meet Kyoto targets. In 2006 the mentions were strictly neutral; again this could be due to the factual representation of the issues discussed. In 2007 there is a stark jump in the positive representation of the policies mentioned. This year the Community Power Fund was introduced which likely had a bearing on the positive context under which the issues were relayed to the public. The Fund was praised on the grounds that it was a more inclusive and participatory policy framework and sustainable energy strategy, again the first of its kind in Canada. It is surprising to note that the Liberal Green Shift Platform was not once referenced over the course of 2007 in the articles surveyed.



Looking at the chart below, it is extremely surprising to note that political parties were only referenced in 11% of the articles surveyed. This can indicate that there has not been a push to put issues surrounding sustainable energy and wind and solar power on the political agenda. It can also be



tied to the lack of discourse surrounding sustainable development and the development of an alternative energy industry in Canada in favour of energy efficiency and consumption patterns. Conversely, the policies that have been mentioned in the literature are not very political by nature, relying on non-governmental organizations and partnerships to build the footings for a sustainable and renewable energy future in this country; this can also be factored in when referring to political parties.

Political parties were only referenced across 11% of the articles surveyed, with the Green Party only referenced in 7% of related articles. This is surprising since no party attempted to attach themselves to issues surrounding sustainable development and wind and solar power, and what is even more surprising is that the Green Party has not jumped on the 'sustainable and renewable energy development' bandwagon politically.



Another indicator demonstrating the lack of political initiative surfaces as the Minister of Environment and Minister of Energy were only referenced in 9% of articles surveyed, again indicating that issues surrounding sustainable and renewable energy development have not fully made it to the political agenda or have not been regarded as issues to be dealt with by the federal or provincial government. In addition to a lack of political representation there is little representation of the Sustainable Energy Association, the organization behind the Community Power Fund. Although when referenced the organization is clearly linked to wind and solar power, with over half of the references making mention of one or the other, and an additional 17% referencing both.



Looking at the representation of other alternative energy sources biomass/bio-energy, geothermal and hydropower are highlighted. The 'other' category in the chart below can be broken down into hydrogen, nuclear, ethanol, biogas and biodiesel, with the greatest emphasis on hydrogen. It is interesting to note and a range of alternative energy sources are represented alongside sustainable energy and renewable energy development. When considering the context of the mention of the other sustainable sources it was never in comparison to solar and wind power, but alongside the two technologies, each alternative source offering a distinct contribution to the proposed renewable energy strategies.



Business or corporate interests included unions, think tanks and a slew of gas and oil companies, venture capital and industry leaders in wind and solar power. These interests were referenced in only 44% of the articles surveyed, with no player standing out from the rest, or proposing a renewable energy strategy or alternative policy framework. In very few instances did the business or corporate interest advocate for any form of renewable energy, and in almost all relevant cases they were in favour of wind and/or solar power. Table 4 lists all of the referenced business and corporate interest, as well as citizen activist groups and other non-governmental organizations.





The following chart indicates the number of references to citizen activist groups or other nongovernmental bodies, being referenced in a mere 35% of the articles surveyed from 2003 to 2007. It is surprising that these groups were referenced in less than half of the articles surveyed as sustainable energy development also did not register as a political issue. Again, looking at Table 4 there is no player standing out from the rest, with citizen activist groups and other non-governmental organizations including public interest groups, the David Suzuki Foundation, municipal, provincial and federal levels of government, coalitions, community groups and farmers movements.





 Table 4 Business and Corporate Interests, Activist groups and other NGOs

Business and Corporate	Citizen Activist Groups, and Other Non-Governmental
Interests	Organizations

Algorithmics	Pembina Institute	Canadian Wind Energy Association
Bed ZED	PLC	Canadian Government (municipal, provincial and federal)
British Petroleum (Canada) Canada Mortgage and Housing	Project Green	City of Hamilton
Corp.	Royal Bank	Clean Air Renewable Energy Coalition
Canadian Auto Workers Canadian Homebuilders Associa-	Seaton	Community Groups
tion	Shell Canada	David Suzuki Foundation
Canadian Nuclear Association	Sky Power Corp.	Farmers Movements
Canadian Wind Association	Solarwind Electric	Federation of Canadian Municipalities
Cleanfield Energy Corp.	Solera Sustainable Energies	Green Peace Canada
Cleantech Venture Network	Sprott Securities Inc.	Intergovernmental Panel on Climate Change
Conematic Heating Systems	Stantec	Karma Food Cooperative
Gas and Oil Companies	Suncor Canada	Municipal Property Assessment Corp.
Green Building Council	Sustainable Edge Ltd. The Alternative Engineer-	Pollution Probe (Toronto)
Home Depot	ing Technology Program	Sustainable Development Technology Canada
Hydro One	The Bay of Fires	United Nations
Ontario Energy Board	Venture Capital	World Wildlife Fund
Ontario Farmers	Walmart	
Opti Solar Farms Canada		

Note: Entries listed in **bold** were highlighted across a range of articles.

Further Discussion, Findings and Conclusion

Some of the findings indicate that sustainable energy development is not a political issue, nor has it been placed on the political agenda. Additionally, the information presented in the current study is based on empirical and factual data. The policy frameworks that are highlighted in the literature are indeed benchmarks for Ontario and the future of renewable energy in Ontario, however are limited in scope. These findings serve to answer the question as to why environmental issues haven't had a greater influence on policy decisions. In regards to what types of increases in sustainable energy resources are viable it is somewhat unclear. The literature indicates that the possibilities are endless, however these issues need to be placed on the political agenda to gain momentum and formulate a clear policy framework towards an alternative energy industry across Ontario.

There is an undeniable role for government, business and the community although the potentialities have not been realized. These issues were more so addressed in the literature, rather than the data presented. The discourse surrounding energy efficiency through lifestyle and consumption patterns is clearly still present and the province has not shifted to more forward-thinking initiatives. There is little evidence presented in the findings that business has carved a place for itself within the framework of sustainable energy development but perhaps there are underlying causes for this lack of interest. As stated previously an alternative energy industry is not on the horizon for Canada, actively drawing producers outside of the country. While these issues have been afforded a place on the public agenda there is room for manoeuvre and growth to expand the alternatives that have been put forth in the form of the Community Power Fund, Standard Offer Program and Feed-in Tariff Program.

The consistent overall emphasis on sustainable living, energy, development and the economy across a range of newspapers and years highlights some of the key concepts linked to sustainability in the literature. Drawing on the work of Sharachchandra and Daly (1991 and 1990) as previously mentioned, the operational principles of sustainable development entail the adoption of people-centred initiatives in order to improve and expand to realize potentialities; and taken in the context of renewable resources or renewable energy ensures a degree of sustainability in the means to achieve these objectives. Taken broadly, sustainable living draws on consumption patterns and life-style choices, comprising the people-centred initiative in relation to sustainability. Energy and development offer the means to improve and expand, and context to ensure a degree of sustainability, and the emphasis on the economy again emphasizes development rather than growth and the idea that the former hinges on improvement and realizing potential.

What has been overlooked in this study has been the framing of issues linked to sustainable energy and wind and solar power. There were several issues discussed pertaining to community development and rural organization presented in the data, however these issues were not coded. Additionally, the place for business and government could have been better evaluated had issue framing been addressed. Further research looks to interest groups, political and non-political movements, government organizations, provincial and federal ministries, as well as business and corporate enterprises to address the appropriate role of government, business and the community, as well as the ideas that have not made it to the public agenda.

Works Cited

- Borah, Porismita. "Examining media content: a case study of newspaper coverage of dowry in India, 1999-2006." <u>Asian Journal of Communication</u> 18. 4 (December 2008): 379-395.
- Canada. Environment Canada. What is Sustainable Development? Sustainable Development information System, Last updated 2006-12-07. Available: http://www.sdinfo.gc.ca/s1_e.cfm [accessed 09 April 2009].
- Castaldo, Joe. "Out of Juice?" Canadian Business. 81. 18 (27 October 2008): 32-39.
- Daly, Herman E. "Toward Some Operational Principles of Sustainable Development." <u>Ecological</u> <u>Economics</u> 2 (1990): 1-6.
- Etcheverry, Jose et al. "Smart Generation: Powering Ontario With Renewable Energy". <u>David Su-</u> <u>zuki Foundation</u>. 2004. URL accessed 10 April 2009 < http://www.davidsuzuki.org/files/Climate/Ontario/Smart_Generation_full_report.pdf>.
- Gipe, Paul. "Renewables Without Limits: Moving Ontario to Advanced Renewable Tariffs, Updating Ontario's Groundbreaking Standard Offer Program". <u>Community Power Fund: Invest-</u> <u>ing in Sustainable Communities</u>. ARTS Revision Report 04 August 29, 2007. Ontario Sustainable Energy Association. URL accessed 10 April 2009 < http://www.cpfund.ca/pdf/updating-ontarios-standard-offer-program.pdf>.
- "How Solar Power Works". Green Experience. 2008. URL accessed 9 April 2009 < http://greenexperience.net/how-solar-power-works/>.
- "How Wind Power Works". Green Experience. 2008. URL accessed 9 April 2009 < http://greenexperience.net/how-wind-power-works/>.
- Johnston, Donald J. "This is Not Going to Go Away". <u>Canadian Business</u>. 81. 4 (17 March 2008): 70-80.
- Krippendorff, Klaus. <u>Content Analysis: An Introduction to Its Methodology</u>. United States: Sage Publications, 1980.
- Liming, Huang, Emdad Haque and Stephan Barg. "Public policy discourse, planning and measures toward sustainable energy strategies in Canada." <u>Renewable and Sustainable Energy Reviews</u> 12 (2008): 91-115.

Neuendorf, Kimberly A. <u>The Content Analysis Guidebook</u>. United States: Sage Publications, 2002. Ontario Power Authority. "Feed-in Tariff Program". 2009. URL accessed 10 April 2009 < http://www.powerauthority.on.ca/FIT/>.

Ontario Power Authority. "Ontario's Standard Offer Program/Renewable Energy Standard Offer Program". 2009. URL accessed 10 April 2009 < http://www.powerauthority.on.ca/sop/>.

- Ontario Power Authority. "Program Update: RESOP Program Update". 12 March 2009. URL accessed 10 April 2009 <http://www.powerauthority.on.ca/sop/Page.asp?PageID=122&ContentID=6856&SiteN odeID=412&BL_ExpandID=190>.
- OSEA. "Advocacy: Community Power Fund". <u>OSEA: Community Power Fund</u>. 2008. URL accessed 10 April 2009 ">http://www.ontario-sea.org/Page.asp?PageID=122&ContentID=910&SiteNodeID=203>">http://www.ontario-sea.org/Page.asp?PageID=122&ContentID=910&SiteNodeID=203>">http://www.ontario-sea.org/Page.asp?PageID=122&ContentID=910&SiteNodeID=203>">http://www.ontario-sea.org/Page.asp?PageID=122&ContentID=910&SiteNodeID=203>">http://www.ontario-sea.org/Page.asp?PageID=122&ContentID=910&SiteNodeID=203>">http://www.ontario-sea.org/Page.asp?PageID=122&ContentID=910&SiteNodeID=203>">http://www.ontario-sea.org/Page.asp?PageID=122&ContentID=910&SiteNodeID=203>">http://www.ontario-sea.org/Page.asp?PageID=122&ContentID=910&SiteNodeID=203>">http://www.ontario-sea.org/Page.asp?PageID=122&ContentID=910&SiteNodeID=203>">http://www.ontario-sea.org/Page.asp?PageID=122&ContentID=910&SiteNodeID=203>">http://www.ontario-sea.org/Page.asp?PageID=122&ContentID=910&SiteNodeID=203>">http://www.ontario-sea.org/PageID=122&ContentID=910&SiteNodeID=203>">http://www.ontario-sea.org/PageID=122&ContentID=910&SiteNodeID=203>">http://www.ontario-sea.org/PageID=122&ContentID=910&SiteNodeID=203>">http://www.ontario-sea.org/PageID=122&ContentID=910&SiteNodeID=203>">http://www.ontario-sea.org/PageID=122&ContentID=910&SiteNodeID=203>">http://www.ontario-sea.org/PageID=122&ContentID=910&SiteNodeID=203>">http://www.ontario-sea.org/PageID=122&ContentID=910&SiteNodeID=203>">http://www.ontario-sea.org/PageID=122&ContentID=910&SiteNodeID=91
- OSEA. "Why Community Power?" <u>Community Power Fund: Investing in Sustainable Communities</u>. 2009. URL accessed 10 April 2009 < http://www.cpfund.ca/pdf/osea-why-communitypower.pdf>.
- Pulfer, Rachel. "Mr. Clean". Canadian Business. 81. 18 (27 October 2008): 74-80.
- Sharachchandra, Lélé M. "Sustainable Development: A Critical Review." <u>World Development</u> 19.6 (1991):607-621.
- Spaargaren, Gert. "Susatinable Consumption: A Theoretical and Environmental Policy Perspective." <u>Society and Natural Resources</u> 16 (2003): 687-701.
- Uzelman, Scott, Robert Hacket and Jackie Stewart. "Covering Democracy's Forum: Canadian Press Treatment of Public and Private Broadcasting." <u>Critical Studies in Media Communication</u> 22. 2 (June 2005): 156-169.