



Jobs vs the Environment?

MAINSTREAM AND ALTERNATIVE MEDIA
COVERAGE OF PIPELINE CONTROVERSIES

By Robert A. Hackett and Philippa R. Adams

DECEMBER 2018



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December 2018

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Summary

MUCH OF THE ARGUMENT ADVANCED IN SUPPORT OF EXPANDING Canada's fossil fuel production centres on job creation and economic benefits. Politicians, pundits and corporate spokespeople who support fossil fuel infrastructure projects—such as new oil and gas pipelines—often evoke this rhetoric when they appear in the media. Positioning themselves as friends of working people, they frame climate action as antithetical to the more immediately pressing need to protect oil and gas workers' livelihoods. And as this study confirms, this framing has become dominant across the media landscape.

Focusing on pipeline projects that connect Alberta's oil sands to export markets, this study examines how the press treats the relationship between jobs and the environment. More broadly, it asks which voices are treated as authoritative and used as sources, whose views are sidelined, which arguments for and against pipelines are highlighted, and what similarities and differences exist between mainstream and alternative media coverage of pipeline controversies. These are important questions as, even in the internet era, research shows that traditional "legacy media" outlets continue to heavily influence voters and political actors, and fuel the opinion merchants who dominate the digital sphere. These outlets continue to have "agenda-setting," "framing" and "priming" effects—that is, they influence which issues people consider important, how those issues are understood, and what criteria are used to evaluate them.

This study uses a content analysis to examine two samples of online articles from corporate and alternative media outlets. The first sample comprises 129 articles about Canadian pipeline projects from January and February 2016; the second includes 170 articles about one particular proposal—the controversial Trans Mountain Pipeline Expansion—published between September and December 2014 when protests erupted in the Vancouver suburb of Burnaby, and in January 2016 when the BC government declared qualified opposition to the project. A third component of the research drills more deeply into the text of several selected articles from mainstream, alternative and labour-focused media to more critically examine the jobs/environment relationship.

From this exploratory analysis, several preliminary conclusions can be drawn, including that:

- There are substantial differences between mainstream and alternative media coverage. For instance, the mainstream media stories in the sample give more attention to fossil fuel industry organizations, while the alternative stories more often mention Indigenous people and environmental groups and protesters. In terms of themes, the mainstream stories more often focus on the economic and employment benefits of pipelines, while alternative media feature pipeline-critical themes.

Supporters of fossil fuel infrastructure projects position themselves as friends of working people, framing climate action as antithetical to the more immediately pressing need to protect oil and gas workers' livelihoods.

By failing to include energy sector workers' voices, the media allow fossil fuel industry proponents to lay claim to them.

- Although they tend to choose different sides, mainstream and alternative media both frequently reinforce the assumption that there is an inevitable trade-off between environmental protection and job creation.
- Themes that challenge this dominant narrative appear only infrequently. For example, the economic risks of pipeline development garner relatively little media attention, and the environmental concerns of energy sector workers and unions are rarely heard.
- While job creation is often touted as a rationale for pipeline projects, the actual workers and their unions—the presumed beneficiaries of fossil fuel expansion—appear to be largely missing from news reportage. Indeed, neither corporate nor alternative media gave much voice to the perspectives of workers and their unions.

The latter finding is particularly notable since by failing to include energy sector workers' voices, the media allow fossil fuel industry proponents to lay claim to them. Not only are workers excluded from the climate policy debate, but their interests have been coopted by fossil capital.

This makes it more difficult to meaningfully include workers in a broad and effective coalition to transition away from fossil fuels—as we must do in order to stave off catastrophic climate change—and to build a greener economy powered by suitable, sustainable jobs.

Introduction

IT IS GENERALLY ACCEPTED THAT EXPANDING PIPELINE CAPACITY will lead to an increase in the amount of oil being produced by Alberta’s oil sands, further increasing carbon emissions and worsening climate change. Nevertheless, pipeline expansion is being proposed in Canada, with proponents relying heavily on the rhetoric of job creation as a reason the public should accept the climate consequences of such projects. Job creation and economic benefits are repeatedly invoked by pro-pipeline politicians, media pundits, and corporate spokespeople, who position themselves and the fossil fuel sector as friends of working people. Yet it is rare to find the voices of actual workers and their unions—the presumed beneficiaries of pipeline construction—represented in the media. Unions and workers who challenge the rhetoric of fossil fuel expansion and advocate a lower-carbon economy seem to be especially silenced, leaving the oppositional case to be stated by groups that can be dismissed, however unfairly, as “NIMBYs” or special interest groups: “environmentalists,” directly affected residents and First Nations.

This matters because the way the media frame and interpret issues has been shown to influence how the public perceives and assesses politics and policies. We live in a world of second-hand experience—people’s understanding of political events and issues beyond their daily lives is derived largely from online, print and broadcast media. There is ample evidence that news media have “agenda-setting,” “framing” and “priming” effects—that is, media have an influence on which issues people consider important, people’s understanding of those issues, and the criteria they use to evaluate issues, candidates and other political matters. For instance, if media “frame” the approval of pipeline projects as primarily a question of economic consequences, audiences will be “primed” to evaluate them in economic terms—jobs, financial costs, material benefits, etc.—rather than in terms of Indigenous rights or environmental implications, for example.¹ Through their impact on political actors as well as voters, media can influence both policy agendas and public opinion.

The relationship between media and political actors, however, is a two-way street. While media can influence political actors, it also matters which voices are used as sources by the media—who gets to use the media to articulate their explanations and interpretations of public issues. In 1978, pioneering research in the UK showed that sources based in established institutions, such as government, police and the courts, enjoy privileged access in media accounts in terms of

It is rare to find the voices of actual workers and their unions — the presumed beneficiaries of pipeline construction — represented in the media.

¹ David Croteau and William Hoynes, *Media/Society: Industries, Images, and Audiences*, 5th ed. (Los Angeles: SAGE, 2014), 236–37. The many examples of agenda-setting research include Shanto Iyengar and Donald R. Kinder, *News That Matters: Television and American Opinion* (Chicago: University of Chicago Press, 1987).

both frequency and type of appearance—for example, seated in a television studio rather than standing on a picket line. Those institutions are thus able to act as “primary definers” of public issues. Their “frames” help establish the terms on which issues are debated, which is halfway to winning any policy battle; others must adjust their own messages accordingly, if they want to be taken seriously. The media act as “secondary definers,” translating the primary definitions of institutions and elites into language that is accessible to mass audiences.² Later Canadian research has added nuance to this hypothesis, recognizing that media can influence sources as much as vice versa; accordingly, journalists and sources jointly reproduce “the power/knowledge structures of bureaucratic life and...the authoritative apparatus of society.”³

Do print media and TV and radio broadcasters, so-called “legacy media,” still matter in the internet era? Activists sometimes dismiss Canada’s major media corporations as irrelevant because social movements have their own websites, social media and digital networks. There is some truth to this—digital media have facilitated mobilization in ways that wouldn’t have been possible a generation ago. But the existence of digital media has not necessarily shifted the balance of power between progressive movements and the “one percent.” Research shows the continued reach and concentrated ownership of major Canadian legacy media.⁴ While they now perform news dissemination alongside Facebook and other corporate-owned “social media” and are experiencing financial challenges and enacting newsroom cutbacks, corporate media⁵ continue to influence public discourse and agendas. Traditional media corporations have extended their presence onto the internet, and they supply much of the information that fuels the internet’s opinion merchants.⁶

This report examines how the press (newspapers, whether digital or print), as the medium with the strongest tradition of and most space for elaborating arguments, covers pipeline controversies. It focuses on who is positioned as an authoritative voice, whose views are sidelined, and which arguments for and against pipeline projects are highlighted. We were particularly interested in media treatment of the relationship between jobs and the economy, on the one hand, and environmental protection on the other, since the fear of job loss is likely a major source of public opposition to effective climate action and support for fossil fuel infrastructure expansion.

We focus on what is currently Canada’s most controversial pipeline, the Trans Mountain Expansion Project from Alberta to Vancouver, originally launched by the Texas-based Kinder Morgan, Inc.

We found substantial differences in sources and themes between corporate and alternative media, with the latter offering more robust critiques of pipeline projects and greater access to the perspectives of Indigenous people and environmentalists. We also found that neither corporate nor alternative media gave much voice to the perspectives of workers and their unions. That gap is likely to be politically consequential, not least because it excludes workers from the climate policy debate and makes it more difficult to build a broad and effective coalition to oppose pipeline expansion and build a greener economy.

This report focuses on who is positioned as an authoritative voice, whose views are sidelined, and which arguments for and against pipeline projects are highlighted.

2 Stuart Hall et al., *Policing the Crisis: Mugging, the State, and Law and Order* (London and Basingstoke, UK: Macmillan, 1978).

3 Richard V. Ericson, Patricia M. Baranek, and Janet B.L. Chan, *Negotiating Control: A Study of News Sources* (Toronto: University of Toronto Press, 1989), i.

4 Dwayne Winseck, “Modular Media: A Radical Communication and Cultural Policy for Canada,” *CCPA Monitor* 23, no. 2 (July/August 2015): 25–31.

5 For the purposes of this report, the terms “corporate media” and “mainstream media” are used interchangeably.

6 Robert Hackett, “Media Reform and Climate Action,” *CCPA Monitor* 23, no. 2 (July/August 2015): 43.

STARTING POINTS FOR OUR RESEARCH

A review of selected literature suggested the following theses, which provided the basis for the research questions addressed in this report.

1. Fossil fuel corporations as obstacles

The prospects for mitigating catastrophic climate change partly hinge on challenging the political dominance of participants, in particular fossil fuel corporations, in a carbon-intensive energy regime.⁷ These entities are structurally wedded to “extractivism”—an economic model based on the appropriation and removal, without renewal, of natural resources from the earth, usually for export to traditional colonial powers or other dominant players in world markets.⁸ Corporations have used their economic and political influence to block or delay approval of policies that would reduce the amount of fossil fuels extracted, or increase their retail price relative to less environmentally destructive forms of energy.⁹ No wonder 350.org and many other environmental organizations have identified fossil fuel corporations as their primary opponent.¹⁰ Despite widespread societal agreement that climate change is an existential threat to humanity, these corporations continue to operate with a “business as usual” mindset, engaging with climate change in ways that do not challenge the economic system’s commitment to never-ending growth.¹¹ That “business as usual” response is reinforced by governments’ commitment to neoliberalism—the ideology and policies of free-market capitalism. Neoliberals (and the fossil fuel industry) tend to downplay the climate crisis and favour “emissions trading schemes founded on the core tenets of neoliberalism,”¹² such as cap-and-trade or carbon pricing, over arguably more effective approaches that entail stronger state regulation and higher costs for industry. These include the localization and democratization of energy production, hard ceilings being placed on greenhouse gas emissions, and a freeze on exploration for new fossil fuel sources.

2. Public pressure is needed

Wealthy countries like Canada and the US have the resources—and arguably the ethical responsibility—to take the lead globally in combatting climate change and developing a green economy. But on its own, contemporary capitalism is not likely to respond with the speed and scale needed for transitioning to a sustainable economy. There are many reasons for this failure, including the enormous scale of public investment needed to set up a new, green infrastructure; the prioritization of trade and corporate profits over environmental protection embedded in global “free trade” agreements; the pursuit of short-term profit maximization in this era of global conglomerates; the parasitism of global capitalism vis-à-vis nature, in which the Earth’s atmosphere is treated as a dumping ground; and the entrenched power of extractivist corporations throughout the

Despite widespread societal agreement that climate change is an existential threat to humanity, corporations continue to operate with a “business as usual” mindset, engaging with climate change in ways that do not challenge the economic system’s commitment to never-ending growth.

7 Frank W. Geels, “Regime Resistance Against Low-Carbon Transitions: Introducing Politics and Power into the Multi-Level Perspective,” *Theory, Culture & Society* 31, no. 5 (2014): 21–40.

8 Naomi Klein, *This Changes Everything: Capitalism vs. the Climate* (Toronto: Alfred A. Knopf Canada, 2014), 169.

9 J. McBeath, *Big Oil in the United States: Industry Influence on Institutions, Policy, and Politics* (Santa Barbara: Praeger, 2016).

10 Bill McKibben, “Global Warming’s Terrifying New Math,” *Rolling Stone*, July 19, 2012, <http://www.rollingstone.com/politics/news/global-warmings-terrifying-new-math-20120719>.

11 Christopher Wright and Daniel Nyberg, *Climate Change, Capitalism, and Corporations: Processes of Creative Self-Destruction* (Cambridge: Cambridge University Press, 2015).

12 J. Andrew, M.A. Kaidonis, and B. Andrew, “Carbon Tax: Challenging Neoliberal Solutions to Climate Change,” *Critical Perspectives on Accounting* 21, no. 1 (2010): 611–18, <http://doi.org/10.1016/j.cpa.2010.03.009>.

economic and political system, as noted above.¹³ Nor can we expect politicians and governments to automatically respond to the urgent environmental needs of the time. Canada's political system and policy-making are still inadequately democratic, unduly influenced by short election cycles, campaign contributions, corporate lobbyists, political marketing, and political opportunism in the context of the state's commitment to private capital as the vehicle for economic growth.

No wonder Naomi Klein argues that "the profit motive is not going to be the midwife for that great transformation" to a greener economy.¹⁴ Mass public pressure, indeed vigorous social movements, are likely to be needed. And this, in turn, partly depends on how the media, which people use to understand the world, frame environmental issues.

3. Resource workers: Important but ambivalent

There is the potential for a politically powerful alliance between labour and environmental movements.

While the membership and influence of organized labour have declined in recent decades, partly due to neoliberalism, workers in resource and energy sectors are still an important constituency in relation to economic, climate and energy policy. Their political influence in Canada's first-past-the-post electoral system is arguably enhanced by their geographical concentration in resource industry-intensive ridings and provinces. Without a widely disseminated progressive alternative, states like West Virginia helped elect Donald Trump partly due to his dubious promise to create jobs through expanding fossil fuel extraction. Yet workers are in a conflicted position with regards to carbon capital. Resource and energy workers are not only the employees of fossil fuel corporations; they are also victims of exploitation, workplace safety violations and pollution by carbon industries. These industries use the threat of job loss to bolster their own economic and political power. And in turn, such power is often used against social programs and public infrastructure that benefit working people.¹⁵

Given this conflicted situation, it is not surprising that Canada's labour movement is somewhat divided. In the construction and resource sectors, some labour organizations, such as Canada's Building Trades Unions, which has over half a million members, support hydrocarbon projects (e.g., <http://buildingtrades.ca/where-we-stand/our-campaigns/energy-development/>). But on a larger scale, others, including the umbrella organization the Canadian Labour Congress with 3.3 million members, call for climate action and a "just transition" to a low-carbon economy (<http://canadianlabour.ca/issues-research/issues/climate-change>). Independently of the CLC, that standpoint is echoed by the country's largest private sector union, Unifor. Many of its 310,000 members work in extractivist industries or other high greenhouse-gas-emitting sectors, like automobile manufacturing. Nevertheless, Unifor and its predecessor unions have publicly opposed the construction of bitumen pipelines on the grounds that they export value-added jobs and contribute to the oil sands' unsustainable pace of development. Unifor participates in the Climate Action Network, the Green Economy Network, and the BlueGreen Alliance of blue-collar workers and environmentalists (<https://www.unifor.org/en/take-action/canadas-42nd-parliament-unifor-action/environment>).

4. A just transition: A key concept

There is the potential for a politically powerful alliance between labour and environmental movements. But if labour support for a green transition is to become robust, it would be ethically

13 Fred Magdoff and John Bellamy Foster, *What Every Environmentalist Needs to Know About Capitalism* (New York: Monthly Review Press, 2011); Klein, 2014.

14 Klein, 2014, 252.

15 Erik D. Kojola, "(Re)constructing the Pipeline: Workers, Environmentalists and Ideology in Media Coverage of the Keystone XL Pipeline," *Critical Sociology* (2015), <http://doi.org/10.1177/0896920515598564>.

and politically wise to ensure that energy and resource workers and communities aren't stranded along with the assets of fossil fuel corporations. Thus, a "just transition" that protects workers' incomes and opportunities seems essential. This approach to environmental policy-making has come from the labour movement itself. It aims to minimize the impact of environmental protection policies on workers in affected industries and communities, involve workers in decisions about their livelihoods, and maximize job opportunities in a greener economy for resource sector workers.¹⁶

A just transition would be far from simple. It would require taking into account other justice-oriented concepts—"energy justice" for those (particularly in the global South) who currently lack access to reliable energy sources, and "climate justice." Climate justice is based on the premise that those who have benefited the most from (or contributed the most to) greenhouse gas emissions have a particular responsibility to mitigate the climate crisis—especially since those most vulnerable to the negative impacts of climate change bear the least responsibility for creating them.¹⁷

5. Corporate media are generally unhelpful

News coverage by corporate media, however, makes it more difficult to comprehend such justice-oriented concepts or to build labour/environmentalist alliances, especially in communities whose economies have been dependent on resource extraction.

While good work is being done in some corners of the corporate media world, coverage by commercial news outlets generally contains bias against pro-climate or pro-environment concepts. Corporate media owners, whether they are hedge funds, conglomerates or wealthy families, tend to be socially, economically and ideologically tied to the corporate elite.¹⁸ Their primary concern has traditionally been advertisers rather than media consumers. This generates pressure for content to be compatible with consumerism and to appeal to particular demographics, privileging the affluent over the less well-heeled, the latter being disproportionately affected by ecological degradation. Indeed, a study of 15 mainstream Canadian newspapers found they consistently underrepresented disadvantaged communities that have experienced negative environmental impacts.¹⁹ Online commercial journalism does not seem to do much better, despite the internet's technical potential for explanatory and solutions-oriented journalism. Editorial decision-makers can now instantly identify stories that attract the most clicks from readers, frequently celebrity gossip and sensational items rather than news that's more substantively relevant to, say, workers' rights or environmental sustainability.²⁰

Corporate media owners' concern for advertisers generates pressure for content to be compatible with consumerism, privileging the affluent over the less well-heeled, the latter being disproportionately affected by ecological degradation.

16 K. Cooling et al., "Just Transition: Creating a Green Social Contract for BC's Resource Workers," the Canadian Centre for Policy Alternatives, January 28, 2015, retrieved January 24, 2016, from <https://www.policyalternatives.ca/publications/reports/just-transition>; Jeremy Brecher, "A Superfund for Workers: How to Promote a Just Transition and Break Out of the Jobs vs. Environment Trap," *Dollars & Sense* 321 (November/December 2015): 20–24.

17 P. Newell & D. Mulvaney, "The Political Economy of the 'Just Transition,'" *The Geographical Journal* 179, no. 2 (2013): 132–40, <http://doi.org/10.1111/geoj.12008>.

18 The classic study on this theme is Wallace Clement's *The Canadian Corporate Elite: An Analysis of Economic Power* (Toronto: McClelland & Stewart, 1975); for more recent ownership data, see Dwayne Winseck's Canadian Media Concentration Research Project at www.cmcrp.org; Leslie Regan Shade and Michael Lithgow's "The Cultures of Democracy: How Ownership and Public Participation Shape Canada's Media Systems," in L.R. Shade, ed., *Mediascapes: New Patterns in Canadian Communication*, 3rd ed. (Toronto: Nelson Education, 2010): 200–20; Marc Edge, "The Never-ending Story: Postmedia, the Competition Bureau, and Press Ownership Concentration in Canada," *Canadian Journal of Media Studies* (Spring/Summer 2016): 53–81, <http://cjms.fims.uwo.ca/issues/14-01/edge.pdf>.

19 L. Deacon, J. Baxter, & M. Buzzelli, "Environmental Justice: An Exploratory Snapshot through the Lens of Canada's Mainstream News Media," *The Canadian Geographer/Le Géographe canadien* 59, no. 4 (2015): 419–32.

20 Hackett, 2015.

Not surprisingly, then, corporate news media often seem indifferent to the issues of social justice, the weakened economic and political influence of trade unions in recent decades, and connections between the climate crisis and the economic and social system.²¹ More directly relevant to this report, several Canadian and US studies confirm that mainstream media tend to present economic growth and environmental protection as mutually exclusive options.²² A study of five Canadian newspapers' coverage of fracking (hydraulic fracturing) over five years indicates that economic frames of the issue were more likely to appear with other economic frames, and were less likely to appear with environmental or health frames; the reverse was also true.²³

Given this presumed trade-off, corporate media in the study tended to highlight jobs and economic stability while minimizing the social and environmental impacts of fossil fuel development,²⁴ which were largely cast as local concerns; little attention was paid to global warming.²⁵ Such framing makes it easier for proponents like Prime Minister Justin Trudeau to present pipelines as being in the "national interest" and opposition as parochial. An important exception was coverage of the proposed Northern Gateway pipeline: presumably reflecting substantial opposition from Indigenous people and other BC residents, the coverage emphasized environmental risks. Ultimately the project was rejected.²⁶

6. Alternative media as an opening?

Several Canadian and US studies confirm that mainstream media tend to present economic growth and environmental protection as mutually exclusive options.

As the Northern Gateway example suggests, the media are not monolithic: even within corporate-owned media, there are openings for worker and progressive viewpoints. And there is good reason to believe that environmental problems, questions of justice, workers' rights, and alternatives to corporate-dominated models of economic growth may find more and better attention in alternative media.

There is no single accepted definition of alternative media. Most researchers and practitioners contrast them with conventional or "mainstream" broadcasting and print corporations such as Postmedia, which owns the *Vancouver Sun* and the *Province*. These are historically the two largest dailies in Metro Vancouver, a city that is a major focus of pipeline controversy in Canada, and of our study. Alternative media are distinct in terms of structure, motivation, content, production processes and orientation to constituencies. In general, they are independent from state and corporate ownership; are not driven by commercial or revenue imperatives; may explicitly advocate for social change, oppositional politics or marginalized cultures; are typically under-capitalized and often rely heavily on volunteer labour; and engage with communities and social movements, rather than treating audiences as markets.²⁷

Given such characteristics, it's no surprise that alternative media typically lack the audience reach, financial resources, and agenda-setting clout of corporate media. But Vancouver has a relatively vibrant alternative media scene that reflects the strength of progressive movements in the region.

21 T. Boyce and J. Lewis, eds., *Climate Change and the Media* (New York: Peter Lang, 2009).

22 Kojola, 2015; Deacon et al., 2015; N. Dusyk, J. Axsen, & K. Dullemond, "Who Cares about Climate Change? The Mass Media and Socio-political Acceptance of Canada's Oil Sands and Northern Gateway Pipeline," *Energy Research & Social Science* 37 (2018): 12–21; A. Olive, "What Is the Fracking Story in Canada?" *The Canadian Geographer/Le Géographe canadien* 60, no. 1 (2016): 32–45.

23 Olive, 2016.

24 Deacon et al., 2015.

25 Dusyk et al., 2018.

26 Dusyk et al., 2018.

27 S. Forde, *Challenging the News: The Journalism of Alternative and Community Media* (Basingstoke, UK: Palgrave Macmillan, 2011); C. Atton, ed., *Routledge Companion to Alternative and Community Media* (Milton Park, UK: Routledge, 2015).

Locally based online outlets including the *National Observer* and *The Tyee* (the latter having 47,000 Twitter followers and 32,000 email subscribers, according to its website) have challenged the lackadaisical corporate dailies and won awards for their investigative and community-oriented journalism.

Initial research on alternative media's approach to climate politics indicates a difference from corporate media: alternative journalism is more likely to offer accounts of climate crisis that are optimistic and engaged, less cynical and spectatorial, and that portray political action as a viable and meaningful form of agency.²⁸ Alternative media appear to be more clearly committed to addressing climate change, critiquing complicit and complacent governments and industries, encouraging grassroots political protest and action, and speaking to climate change's victims rather than its deniers.²⁹ Do alternative media include the voices of workers, the concept of a just transition, or challenge the jobs/environment dichotomy?

28 S. Gunster, "Covering Copenhagen: Climate Politics in B.C. Media," *Canadian Journal of Communication* 36, no. 3 (Fall 2011): 477–502.

29 R. Hackett et al., *Journalism and Climate Crisis: Public Engagement, Media Alternatives* (London: Routledge, 2017).

Methodology

THIS PAPER ANALYZES COVERAGE OF CANADIAN PIPELINE construction projects in corporate and alternative media, as well as labour-focused media. The research examined two samples of online articles from corporate and alternative outlets; each sample was examined by a team of student researchers using overlapping but distinct methods. They used a technique called content analysis, which entails categorizing and counting the characteristics of a news article, which was the basic unit of analysis. The two samples were modest in size and limited by the practical considerations noted in Appendix A, but we believe they reflect broader patterns in Canadian news media.

The first sample, titled CANP (“Canadian Pipeline”) for purposes of this report, comprised 129 articles published in January and February 2016 that dealt with the major Canadian pipeline projects associated with expansion of the Alberta bitumen sands—Kinder Morgan’s Trans Mountain Expansion Project (TMX), Energy East, Keystone XL, and Northern Gateway. Ninety of the articles came from three corporate-owned dailies: the *Vancouver Sun* and the *Edmonton Journal* (two of the leading dailies in Canada’s largest newspaper corporation, Postmedia, based in cities where pipeline projects are a major issue), and the *Globe and Mail*, Canada’s closest equivalent to a national newspaper. Thirteen items were selected from each of three online alternative outlets (for a total of 39)—*Ricochet*, *The Tyee*, and the *National Observer*. The original intention was to include a sample of articles from media produced by and for workers and their unions, in order to assess whether these publications offer a distinct perspective on labour, jobs and the environment. Unfortunately, even with an expanded time frame of January to October 2016, too few relevant articles could be found in union-oriented publications to enable meaningful statistical comparisons. However, *Rank and File*, a progressive grassroots website based in Kingston, Ontario, that focuses on labour issues published several pieces that provided fruitful material for critical discourse analysis, as discussed below.

The second sample of news articles (called KMP, for Kinder Morgan Protests) focused on local coverage of a particular project—the proposed twinning of Kinder Morgan’s Trans Mountain pipeline from the oil sands to Vancouver. The proposed expansion has triggered opposition from First Nations, community groups and environmental groups because it would result in increased oil tank storage and tanker traffic in Burrard Inlet. The KMP sample used two monitoring periods: September to December 2014, when protests erupted in the Vancouver suburb of Burnaby; and January 2016, when protests had died down but the BC government declared qualified opposition to the pipeline, sparking renewed media attention. The student research team used each news website’s search feature and selected 120 articles from the first period and 50 from the second.

The “mainstream” category comprised 40 articles from the city’s main broadsheet, the *Vancouver Sun*, owned by right-leaning Postmedia; and articles from two free commuter tabloids: the now-defunct *24 Hours*, also owned by Postmedia (7 articles), and *Metro Vancouver*, a somewhat more liberal paper owned by Toronto-based Torstar and Swedish company Metro International (31 articles). Alternative media were the same three outlets as for the CANP sample—*The Tyee* (33 articles), *Ricochet* (9 articles) and the *National Observer* (34 articles), as well as *rabble.ca*, a national progressive online outlet (16 articles). No adequate sample of articles from labour media could be accessed for the monitoring period.

While both the CANP and KMP samples included different kinds of articles, including opinion pieces, they mostly contained news reports of timely events. Both samples were coded using a nearly identical set of variables: article identification (date, news outlet, byline, type of item); the types of sources or claims-makers who were accessed; and positive and negative themes (claims and arguments) covered by reporters or their sources, concerning the rationale, costs and benefits of fossil fuel development, mainly pipelines. Sources and themes were categorized in advance through a preliminary “soak” of the news sample, rather than afterward. (They are summarized below and are defined more fully in Appendix A.) For both samples, inter-coder reliability tests were carried out, and variables that failed to achieve an acceptable level of consistency between coders were discarded from the analysis (see Appendix A).

Twenty types of sources for claims and opinions in the pipeline expansion debate were initially identified: provincial governments or the federal government and politicians; regulatory bodies, notably the National Energy Board; senior government officials; opposition party politicians; city mayors and governments; environmental groups; unaffiliated protesters; pipeline companies; fossil fuel industry organizations; trade unions; rank-and-file workers; green businesses; courts and judges; Indigenous people; policy institutes; police and law-enforcement agencies; other Canadian institutions; experts, scientists and academics; community groups and the public; other groups.

For each article, *each* of these types of sources was coded according to its “highest” degree of access, as follows (if there was more than one speaker of the same type, only the “highest” one was recorded):

- It was the first one quoted or paraphrased in the article, whether in the headline or the body of the article;
- It was quoted later in the article, a secondary status (the CANP sample also placed those who were paraphrased in this category);
- It was mentioned in the story, as a description of a person or group’s actions or participation, but not as a source of opinions, positions, conclusions or information; or
- It was absent altogether.

These four criteria, with corresponding scores of 4, 3, 1 and 0, respectively (giving greater weight to actors who get to speak, compared with those who are merely mentioned), enabled us to identify a “hierarchy of access” indicating which types of voices are systematically amplified in the news media, and which voices are generally ignored or marginalized. This hierarchy of access has implications for how issues come to be publicly defined and whose interests resonate with the general public.

Using the research questions and an initial scanning of the news samples, we identified an exhaustive list of themes or claims that were either critical or supportive of pipeline projects or fossil fuel development. The critical themes identified were climate change, other environmental risks, inadequate job creation, other economic downsides, Indigenous rights and opposition, general

Using the research questions and an initial scanning of the news samples, we identified an exhaustive list of themes or claims that were either critical or supportive of pipeline projects or fossil fuel development.

threat to the public interest, threat to democracy, flawed approval process, labour's environmental concerns and commitments, the need for a just transition, and the better opportunities offered by a greener economy.

By contrast, the positive or neutral claims comprised job creation; other economic benefits, including public revenues; safety of pipelines; environmental benefits; legitimacy of the approval process; labour's support; public or national interest; Indigenous support; the inevitability of producing and consuming fossil fuels for the foreseeable future; illegitimacy of opposition; other arguments.

In addition to analyzing sources and claims from the two samples, a third component of the research drilled more deeply into the text of several selected articles from mainstream, alternative and labour media to examine the jobs/environment relationship. For that purpose, we used some tools of critical discourse analysis, as explained later in this report.

Findings from content analysis

CRITICAL THEMES ARE PROMINENT IN COVERAGE OF PIPELINE DEBATES

IN BOTH SAMPLES, CRITICAL THEMES TENDED TO BE REPORTED at least as frequently as supportive ones. In the CANP sample, each critical theme appeared in an average of 17.6 per cent of articles, compared to a similar average of 18.1 per cent for each positive theme (Appendix B, Table 1).

It is hardly surprising that critical themes predominated in the KMP sample, which focused on periods of protest and can therefore be expected to include reports, however brief, of protesters' criticisms of pipeline expansion. In that sample, each of the 11 critical themes appeared in an average of 27.5 per cent of articles, compared to an average of 6.6 per cent for the 10 positive or neutral themes (see Appendix B, Table 2).

These results may speak to the newsworthiness of protest and opposition, as well as the presence of alternative media in the samples, with consequences noted below. Of particular interest here is the relative frequency of particular claims made for or against pipelines. In the CANP sample, the most mentioned critical themes were Climate Change, Other Environmental Risks, First Nations Rights, Public Interest Threat, Other Economic Risks (i.e., other than risk to jobs), and Flawed Process (Table 1). In the KMP sample, they were Environmental Risks, Public Interest Threat, Flawed Process, Threat to Democracy, First Nations Rights, and Climate Change (Table 2). Conversely, Jobs Risk, Just Transition, Labour Environmentalism, and Green Opportunity were four of the five *least* mentioned oppositional themes, especially in the corporate press, in both samples (Tables 1 and 2). Importantly, these are the themes with the most potential for forging labour-environmentalist alliances.

As for supportive themes? In both samples, Other Economic Benefits (other than jobs) was the most frequently used rationale for pipeline expansion, followed by Jobs, Legitimate Process, Public Interest, and Pipeline Safety—the latter being a theme that pipeline companies themselves seemed reluctant to raise, except in response to critics' assertions.³⁰ While Jobs and Other Economic Benefits are prominent arguments in favour of pipelines, neither labour support for pipelines nor labour's environmental concerns and alliances feature in many reports—a pattern that speaks to the relative absence of labour's voice.

While the themes of jobs and other economic benefits are prominent arguments in favour of pipelines, neither labour support for pipelines nor labour's environmental concerns and alliances feature in many reports—a pattern that speaks to the relative absence of labour's voice.

30 As Big Oil's public relations advisers are doubtless aware, to repeat a theme, even if you're denying it, reinforces it. See George Lakoff, *Don't Think of an Elephant! Know Your Values and Frame the Debate* (White River Junction, Vermont: Chelsea Green, 2004), 3. A classic blunder in this regard was Richard Nixon's claim, "I am not a crook," which reinforced perceptions of his criminality.

WHO ARE THE CLAIMS-MAKERS IN MEDIA COVERAGE OF PIPELINE DEBATES?

The “hierarchy of access” of sources quoted in the news articles in our samples approximates the “primary definers” pattern found in the British research, but it’s modified by the presence of usually marginalized groups—protesters and Indigenous people. In the KMP sample, which focused on the two peak protest periods, the most frequent groups mentioned or quoted were pipeline companies (which is unsurprising, given the search terms defining the sample), followed by government regulatory bodies (notably the National Energy Board), protesters, federal and provincial politicians, the public, city officials, the courts and Indigenous people (Table 3). Ordinary workers were mentioned in 24.7 per cent of 170 articles (a relatively high proportion, partly due to the newsworthiness of confrontations between protesters and pipeline workers doing exploratory work), but trade unions as their representative organizations were mentioned in just 7.1 per cent of articles.

The near absence of unions as a source in articles about Canadian pipelines is notable in light of their public positions for or against fossil fuel expansion and the large number of workers they represent.

Out of 129 articles in the CANP sample (Table 4), the most frequently mentioned or quoted types of sources, when corporate and alternative media were combined, were pipeline companies (in 82.2 per cent of the sampled articles), government politicians (74.4 per cent), government regulators (55 per cent), First Nations (37.2 per cent), the public (34.9 per cent), environmental groups (32.6 per cent), city governments/officials (29.5 per cent), and fossil fuel industry organizations other than pipeline companies (29.5 per cent). Given that the sample focused on pipeline projects that were proposed rather than actually constructed, it isn’t surprising that workers were sourced in just 7.8 per cent of articles; however, the near absence of unions (2.3 per cent) is notable in light of their public positions for or against fossil fuel expansion and the large number of workers they represent.

An alternative way to assess the amount of access for each type of source is its average score, based on the simple four-point scale described in the Methodology section above. That calculation, not shown in the tables, does not substantially alter the hierarchy of access. For example, in the CANP sample, in descending order of average access score, the most frequently accessed sources are Government Politicians, Pipeline Companies (they drop from first to second place, being often mentioned but less frequently quoted), Regulatory Body, City Government/officials, Environmental Groups, Fossil Fuel Industry Organizations, Experts, First Nations Spokespeople, Opposition Politicians, Other Canadian Institutions, the Public, Federal or Provincial Government Officials, Protesters, Policy Institutions, Trade Unions, Ordinary Workers, Courts, Green Businesses, and Police. Once again, labour voices are near the bottom of the hierarchy, while the prominence of political sources is consistent with research on other public issues’ portrayal in the media.³¹

WORKERS’ AND UNIONS’ VOICES ARE MUTED IN NEWS COVERAGE

Our study examined how much weight the voices of workers and their unions have in coverage of pipeline controversies. Considering the prominence of job creation claims as a leading rationale for pipeline construction, one might expect that workers would be an important stakeholder group in these projects. However, we found that workers’ voices are largely missing in media coverage. In the CANP sample, as can be gleaned from Table 4, 7.8 per cent of the articles (10 of 129) mentioned ordinary workers, and just 2.3 per cent (3 of 129) mentioned trade unions, as a

31 See Stuart Hall et al., 1978.

source or actor. In the KMP sample, 30.6 per cent of the articles included workers and/or unions as sources or actors (a relatively high proportion related to the newsworthiness of confrontations between protesters and pipeline workers).

To explore whether or not workers and their unions offer a distinct perspective in the pipeline debate, we considered the extent to which the presence of labour voices in news articles is associated with claims or themes that depart from the norm.

In the CANP sample, articles with a labour presence are thematically similar to other articles. Such “labour” articles are only somewhat more likely to mention the pipeline-critical themes of Green Opportunity, Just Transition, Labour Environmentalism, and Other Economic Risks as well as the pipeline-supportive themes of Jobs and Labour Support. “Labour” items are somewhat less likely to include pipeline criticisms related to Climate Change, First Nations Rights or Process concerns, or pipeline support based on claims of Public Interest, Pipeline Safety and Legitimate Process.

In the KMP sample (Table 5), articles that included workers and/or unions as information sources or actors were somewhat more likely than average to include mentions of pipeline-critical themes based on Threat to Democracy, Public Interest Threat, Jobs Risk and Labour Environmentalism; however, only Threat to Democracy was statistically significant, as Table 5 shows. Articles mentioning workers were surprisingly less likely to refer to Green Opportunity or Just Transition, or conversely, the pipeline-supportive themes of Jobs or Other Economic Benefits. None of these differences was statistically significant, however, and to the extent that they are “real,” they may reflect the near absence of workers as *sources* in many articles about anti-pipeline actions. Workers were more likely to appear as “silent” Kinder Morgan employees affected by protest disruptions.

We dug further into aspects of the data to try and uncover correlations between the presence of labour actors and particular themes, and to see whether labour enjoyed more apparent influence within alternative media compared with corporate media. These efforts, however, revealed few significant relationships. Within alternative media, unions (as distinct from ordinary workers) were disproportionately cited in articles with the critical themes of Other Economic Risks and Labour Environmentalism in the KMP sample.

In the CANP sample, trade unions and ordinary workers (along with environmentalists and green businesses) were more likely to appear in articles mentioning Labour Environmentalism, Just Transition or Green Opportunity, compared to articles mentioning other themes. Thus, there is some slim evidence of consistency between claims and claims-makers with respect to labour support for a transition to a greener economy—but in the context of themes that (as Table 1 shows) are infrequently raised.

On the whole, the small number of “labour” articles, and the discrepancies in this area between the two samples, make it impossible to discern any substantial labour influence on claims in the news. More robust differences are found in the contrast between mainstream and alternative media.

BIG DIFFERENCES IN COVERAGE BETWEEN MAINSTREAM AND ALTERNATIVE MEDIA

Both samples included several corporate/commercial and alternative/independent media outlets. Substantial thematic and source differences were found in both samples. In the KMP sample, as per Table 3, the alternative outlets (*rabble.ca*, *Ricochet*, *National Observer* and *The Tyee*) accessed

Considering the prominence of job creation claims as a leading rationale for pipeline construction, one might expect that workers would be an important stakeholder group in these projects. However, we found that workers’ voices are largely missing in media coverage.

Indigenous people and experts about twice as often as corporate media (*Vancouver Sun, Metro, 24 Hours*) did. Alternative media mentioned ordinary workers much less than corporate media did, a counterintuitive finding that appears to result from corporate media's focus on confrontations between protesters and pipeline workers. Alternative media were more likely to mention unions and (perhaps surprisingly) senior government officials—but not enough to be statistically significant (Table 3).

The CANP sample similarly found that Indigenous people and especially Environmental Groups and Protesters received much more attention in alternative media than in corporate media. Workers and unions were near the bottom of the access hierarchy in both types of media, receiving somewhat more (but not a statistically significant amount of) access in alternative media. Conversely, corporate media paid more attention than alternative media to Fossil Fuel Industry Organizations and Opposition Politicians, though only the former was statistically significant (Table 4).

Most of the pipeline-supportive themes received significantly more mentions in corporate media.

What about thematic differences? The CANP sample found a number of statistically significant contrasts (Table 1). Alternative media were more likely to mention the pipeline-critical themes of Threat to Democracy and Green Opportunity, as well as First Nations Rights, Flawed Process and Labour Environmentalism (though the latter three were not statistically significant). Most of the pipeline-supportive themes received significantly more mentions in corporate media, indeed dramatically so. Nearly half of all corporate news articles mentioned the Public Interest and Other Economic Benefits of pipelines, compared to only about 5 per cent and 10 per cent of alternative news articles, respectively. Mainstream news articles in the CANP sample were also more likely to mention Illegitimate Opposition, Pipeline Safety, Jobs, Fossil Future, and Legitimate Process (though the last was not statistically significant).

In the KMP sample, we found similarly large and statistically significant differences between alternative and corporate media: in order of proportional difference, alternative media gave more attention to the critical themes of First Nations Rights, Climate Change, Threat to Democracy, Other Environmental Risks, Other Economic Risks, Jobs Risk, and Flawed Process (Table 2). Corporate media gave more coverage to seven of the 10 pro-pipeline themes, though only one (Public Interest) was statistically significant.

DOES NEWS CONTEXT AFFECT THE DISTRIBUTION OF THEMES AND SOURCES?

The KMP sample allowed us to compare coverage of pipeline debates during Fall 2014, when confrontations on Burnaby Mountain attracted national media attention, with coverage in January 2016, when BC's Liberal government announced its conditional opposition to the pipeline. Although these data are not presented in the tables, we can report that seven themes had significant increases in frequency following the provincial government's announcement: the critical themes of Flawed Process and First Nations Rights, and the pipeline-friendly themes of Other Economic Benefits, Pipeline Safety, First Nations Support, Fossil Future and Environmental Benefits. No theme significantly decreased in frequency. We speculate that this pattern can be accounted for by fluctuations in the flow of newsworthy events. In Fall 2014, pipeline news was dominated by the reality of protests and arrests. Media coverage in January 2016 instead focused on substantive political positions and arguments. This interpretation is borne out by parallel and statistically significant shifts in sources between the two periods: the January 2016 coverage had

fewer protesters, courts, police and workers; and more government politicians, government officials/agencies, regulatory bodies and Indigenous people.

These findings remind us that unpredictable external events affect news topics and source access. This point may seem obvious, yet media sociologists have claimed for decades that news is a routinized and manufactured product, one that systematically generates particular kinds of representation about the world.³² To be clear: we are not talking about “fake news,” a much-abused contemporary concept implying that journalists deliberately produce false information. Rather, news is unavoidably filtered through a variety of factors at various levels, including the professional judgement of individual journalists, production routines within newsrooms, the ownership and institutional imperatives of news organizations, stakeholders outside the news media (including sources, advertisers, audiences, governments and media markets), and at the broadest level, cultural and ideological assumptions and power imbalances.³³ As a result, news systematically exhibits certain “information biases,” notably the personalization and dramatization of events, the fragmentation and separation of these events, and a preoccupation with violations to and the restoration of order and authority.³⁴ All told, even when journalists professionally and sincerely pursue the goal of objectivity, news is not neutral; it is inescapably ideological, in the sense of privileging some voices and understandings of the world over others.³⁵ In considering media treatment of pipeline issues, it is therefore worth exploring the often-unstated assumptions that underlie news narratives.

Even when journalists professionally and sincerely pursue the goal of objectivity, news is not neutral; it is inescapably ideological, in the sense of privileging some voices and understandings of the world over others.

32 Landmark studies in this vein include Gaye Tuchman, *Making News: A Study in the Construction of Reality* (New York: The Free Press, 1978); Mark Fishman, *Manufacturing the News* (Austin and London: University of Texas Press, 1980); Todd Gitlin, *The Whole World Is Watching: Mass Media in the Making and Unmaking of the New Left* (Berkeley and Los Angeles: University of California Press, 1980); Pamela J. Shoemaker and Stephen D. Reese, *Mediating the Message: Theories of Influences on Mass Media Content*, 2nd ed. (White Plains, NY: Longman, 1996).

33 Shoemaker and Reese, 1996.

34 W. Lance Bennett, *News: The Politics of Illusion*, 8th ed. (New York: Pearson/Longman, 2009).

35 Robert A. Hackett and Yuezhi Zhao, *Sustaining Democracy? Journalism and the Politics of Objectivity* (Toronto: Garamond, 1998).

Critical discourse analysis

Critical discourse analysis (CDA) is an approach that identifies the ideological character of news articles (or other cultural texts) by closely examining their grammar and rhetoric.

TO TEASE OUT THESE ASSUMPTIONS AND STRENGTHEN the comparisons between the types of media, this report's lead author supplemented the quantitative content analysis with some of the tools of critical discourse analysis (CDA) in order to explore the textual characteristics of a handful of articles from corporate and alternative outlets. CDA is an approach that identifies the ideological character of news articles (or other cultural texts) by closely examining their grammar and rhetoric. From the 299 articles used for the quantitative analysis, the lead author selected four, supplemented by two articles from *Rank and File*, the worker-oriented website mentioned above. Its independent ownership and progressive perspectives make it akin to alternative media for these purposes. *Rank and File* offered especially good examples of journalism that challenges the jobs/environment dichotomy.

The articles were chosen on the basis of the presence of the following themes, thought to be relevant to the research questions and likely to highlight distinctions between corporate and alternative media coverage:

- assumptions about “the economy”/environment relationship—are they separate and antagonistic constructs?
- the potential for existing and emergent alliances between labour and environmentalists (do conventional media reinforce a stereotype that workers and Greens are “naturally” in opposing camps?)
- the desirability and inevitability of using fossil fuels/infrastructure (“the world needs energy” as a rhetorical starting point)
- characterizations of actors (demonization, validation, etc.)—protesters, governments, oil companies
- concepts of politics and agency

In deciding what aspects of the articles to analyze, we used the practices of CDA specialist John Richardson, who has identified the following dimensions as central to how news texts work ideologically:³⁶

- key lexical choices (choice of words: how particular normative, economic and environmental objects are categorized or labelled);

³⁶ John E. Richardson, *Analysing Newspapers: An Approach from Critical Discourse Analysis* (Basingstoke and New York: Palgrave Macmillan, 2007). See also Norman Fairclough, *Media Discourse* (London: Arnold, 1995), 27, with respect to modality.

- modality, a concept used in a broad way to assess the degree of a writer’s commitment to the claim they are making, and their attitude toward the situation being described (modality can be expressed through a range of textual features);
- agency (who is portrayed as an active party, or conversely, as an object of actions by others); and
- assumptions about social and economic realities, and blind spots or relevant omissions.

The six articles selected comprised three from corporate media, expressing “extractivist” viewpoints; and three from alternative outlets that were critical of fossil fuel capitalism:

Corporate media:

- Keith Phillips, “Blocking projects only hurts B.C.; Resources: Discussion, not protests, are the solution,” *Vancouver Sun*, Dec. 26, 2014.
- Barbara Yaffe, “Mayors have to face crude reality; Necessary evil: It’s time to stop blocking pipeline projects and work instead to ensure they are built as safe as possible,” *Vancouver Sun*, Jan. 29, 2016.
- Barrie McKenna, “Trudeau will eventually have to admit pipelines are needed,” *Globe & Mail*, Feb. 1, 2016.

Alternative media:

- Geoff Dembicki, “The ‘jobs or environment’ choice is ‘false’ says mega-union,” *The Tyee*, Nov. 24, 2014.
- Trish Kahle, “Austerity vs. the planet: The future of labour environmentalism,” *Rank and File*, April 28, 2016.
- James Hutt, “How a national climate strategy can strengthen the labour movement,” *Rank and File*, June 15, 2016.

The pro-extractivist articles we examined render oil corporations and state agencies invisible or credible, those opposed to extractivism as a special interest group with little legitimacy, and a fossil fuel future as inevitable.

CORPORATE MEDIA, EXTRACTIVIST ASSUMPTIONS

Lexical choices

Overall, the pro-extractivist articles we examined render oil corporations and state agencies invisible or credible, those opposed to extractivism as a special interest group with little legitimacy, and a fossil fuel future as inevitable.

Thus, the anti-pipeline mayors of Vancouver and Montreal are a “stumbling block,” “slinging mud,” practising “canny politics” and speaking “parochially.” Moreover, Yaffe implies that they are hypocritical because Quebec receives equalization payments and Vancouverites enjoy SUVs and air travel. Phillips identifies “the comfort of our wood-frame houses, tech gadgets, motor vehicles, and a sea of cheap plastic products made abroad” as the benefits of the “natural resource sector.” Protesters are “well meaning” but “ignorant” (Phillips) and consist of a “vast coalition of environmental groups” that make demands (McKenna)—as if they are a powerful but parochial and self-interested advocacy group that does not reflect the views of most Canadians.

McKenna lumps together lumber, nickel, wheat and oil as “commodities” representing 20 per cent of Canada’s economy, simultaneously obscuring oil’s distinctive environmental impacts and exaggerating its economic importance. The inevitability of an oil-fuelled future is taken for

granted as a “crude reality” (a pun by Yaffe’s headline writer), pipelines are a “necessary evil” (Yaffe), and the National Energy Board’s findings on the economic costs of blocking pipelines are “inconvenient” (McKenna)—doubtless an ironic inversion of Al Gore’s award-winning film *An Inconvenient Truth*, which presented climate change as a reality embarrassing for climate science deniers, and called for action on global warming.

Modality and agency

While jobs and economic necessity are bedrock assumptions of these articles, workers and their unions are not mentioned. Extractivist corporations are rendered invisible as political actors—they are dissolved into general categories (“resource development”), depicted as merely reactive, or erased (not mentioned or named). “Resource development” is “undertaken to serve a market” writes Yaffe, and pipelines are “filling a market need.” By contrast, “taxpayers” exert agency because they demand services. Anti-pipeline mayors are indeed political actors, but their legitimacy as elected representatives is undermined by the qualifiers noted above. A strong sense of both political and economic necessity is indicated by the headline of McKenna’s article: “Trudeau will eventually have to admit pipelines are needed.” Normally, a prime minister is presented as an actor with a good deal of authority and agency, but in this case, Trudeau is implicitly positioned as a target for lobbying and persuasion. The use of the emphatic phrase “will...have to admit” is an indication of the author’s commitment to his argument—the dimension of modality. Here, the modal verb “will” is much stronger than “may” or “could,” and the verb “admit” implies a reluctant recognition of a pre-existing reality.

While jobs and economic necessity are bedrock assumptions of these articles, workers and their unions are not mentioned.

Binary oppositions

The commitment to extractivism is underwritten by the use of an ideological dualism or binary between environmental protection, on the one hand, and the “public interest,” “communities,” “prosperity,” the “greater economic good” and the “national interest” on the other (Yaffe). This type of rhetorical framing normalizes the dichotomy between the environment and the economy, and privileges the economy by connecting it with a more universal interest. This framing also creates goalposts between which “balance” is located and promoted—“our needs for economic growth and environmental protection” (Phillips). Sometimes, though, the terms of the dichotomy are ill-defined: Yaffe calls for a “balanced approach”—but between what? She refers to Alberta’s “significant efforts to clean up its environmental act, and a new federal government announcing...a more rigorous system of environmental review of pipeline projects.” Both are arguably very limited measures, and it’s unclear whether Yaffe regards them as “balanced” or as the environmentalist goalpost requiring counterbalancing with resource development.

Reality assumptions

In the mainstream journalists’ view, the desirability of fossil fuels may be ambiguous (pipelines as a “necessary evil”), but their inevitability is not. Their self-assurance is evident: “According to [unspecified] projections, the world will be using more, not less, oil in coming decades” (Yaffe). The job-creation impact of “resource development” is also taken for granted, but Yaffe goes further: it is “undertaken *because* it is profitable, *generates* jobs, and money that finances...services” (emphasis added). While job creation may be a factor in *political* support for extractivist projects, it is clearly not a motivation for *corporate* investment, which is driven by considerations of profit. Indeed, corporations are introducing technology such as driverless trucks that reduces their costs and eliminates oil industry jobs.

A key characteristic of the mainstream discourse is the erasure of extractivist corporations' potentially conflicting interests in relation to resource workers and the broader Canadian public, which makes them appear more neutral. Consider the article by Phillips, whose occupational position—as a coastal ecotourist entrepreneur—gives him more credibility as a supporter of resource development than an extractivist industry spokesperson would have. Phillips asserts that “We all need energy to sustain our operations, and with no new [energy] projects the costs will go up and force entrepreneurs out of business.” Consensus on energy policy is quite possible—“We have similar concerns”—and Phillips commends “Community Breakfast Conversations,” saying “the value of such inclusive conversation is very high.”

ALTERNATIVE MEDIA, CRITICAL VIEWS

Lexical choices

In labelling the social and political world, critical articles in alternative media are more likely to use critical and analytical terms—“neoliberalism” and “austerity” (Kahle) and to draw connections between the current social order and environmental degradation. They also introduce and invoke concepts such as “just transition” (Kahle, Dembicki) and “climate justice,” both as normative benchmarks for evaluating the current world order and as possible strategic frames for bringing about social change. The assumptions and claims of the supporters of extractivism are often problematized through the placement of distancing quotation marks, for example, the Kyoto Protocol is “suicidal” and a carbon tax would “undermine the economy,” “destroy jobs and growth” or “kill and hurt Canadian families” (Dembicki). These articles are less likely to describe the environment in economic terms (such as “natural resources”) and are more likely to evoke ecological values, such as “Mother Nature” (Dembicki).

In the corporate media articles, petro-entities are barely mentioned except as authorities, and they are conflated with more neutral (and arguably benign) terms like “resource development.”

Modality and agency

The critical articles are committed to the truth of climate *science* and its warnings regarding human-related global warming. It is “crystal clear” (Hutt), scientists have “confirmed” (Kahle) and environmental activists have “pointed out” certain realities, such as the link between climate change and the continued production of fossil fuels (Kahle). By contrast, climate and labour *politics* are unpredictable. A downward trend in union membership “will continue unless” unions organize new workers; Canada “could eliminate” subsidies to oil sands; Canada “can create good jobs” through investment in low-carbon sectors (Hutt). In contrast with the validity of climate science, corporate claims are suspect: corporations “prophesied,” “leverage fears” and advance “claims” and “propaganda” (Kahle).

In the corporate media articles, petro-entities are barely mentioned except as authorities, and they are conflated with more neutral (and arguably benign) terms like “resource development.” By contrast, the critical articles highlight petro-corporations as self-interested political actors. The “corporations demanding zero limits to [fossil fuel] expansion” are named; such corporations comprise “certain vested interests” and have “launched a media offensive” (Dembicki). Unions are also treated as political actors, but more beneficial ones; indeed, they are urged to act, for example by organizing new workers, and to adopt a “climate strategy” to end precarious work and “lead the transition away from fossil fuels and towards good green jobs that will reduce inequality and...increase the power of the labour movement” (Hutt). At the same time, the movement is not portrayed as monolithic; internal shifts and divisions are discussed (Dembicki and Kahle).

Binary oppositions

If corporate media often represent environmental protection as a parochial interest obstructing economic growth, alternative media not only reject that assumption, but also the assumed contradiction between economic and environmental well-being. Alternative media describe that contrast as an “industry-propagated myth” (Kahle), an “environmental cliché” or a “false conflict” (Dembicki). Critical media construct their own binaries, however, which at first sight can be taken as inverting rather than rejecting the environment/economy dichotomy. They juxtapose “corporate greed,” fossil fuels and pipelines, on the one hand, with greater equality, “good green jobs,” climate, communities, Indigenous people, and waterways (Hutt) on the other; Keystone XL is antithetical to the climate, and strip-mining jeopardizes the environment, hillsides, soil and water (Kahle). These binaries, however, do not necessarily reject “the economy” as such, but a particular *type* of economy—carbon capitalism. Such critical articles implicitly open the door (without explicitly advocating for) alternative economic systems, such as eco-socialism or green capitalism. The counterpoising of “austerity” (as a distinctly neoliberal economic policy) with “sustainability” (Kahle), as well as “all new pipelines” with “science” (Hutt), reinforces this interpretation.

Binary oppositions are important components in how social movements use “frames” to persuade and mobilize support.

Such frames help identify grievances and solutions, friends and enemies.

In addition, as a progressive writer for a worker-oriented website, Kahle sees fundamentally conflicting class interests within the resource sector—companies versus workers, the coal industry versus coal workers. This poses a conceptual problem for Kahle when, as she notes, some American unions have joined employers and politicians in opposing environmental regulation. She thus works to disarticulate “workers” from this binary, arguing in effect that they have fallen prey to false consciousness—which she regards as understandable because “there are no large-scale jobs programs on the table to replace their current dirty jobs.”

Binary oppositions are important components in how social movements use “frames” to persuade and mobilize support. Such frames help identify grievances and solutions, friends and enemies. They also help establish the “goalposts” between which an assumed “reasonable middle ground” can be found. Thus, Dembicki cites the position of trade union Unifor as a middle ground between “activists fighting to shutter Canada’s oil and gas sector” and “corporations demanding zero limits to its expansion.”

Given this understanding of extractivist political economy—workers are trapped in an economic system that doesn’t serve their own or the broader society’s long-term interests—it’s easy to see why the concept of a “just transition,” supported by practical policies, is necessary politically as well as ethically to breaking the current impasse.

Reality assumptions

The critical articles display skepticism about fossil fuel projects serving as a foundation for jobs and the economy, pointing to job losses in the sector due to reasons other than environmental protection—mechanization as the real cause of job loss in the coal industry (Kahle) and the oil industry’s downturn causing the loss of 100,000 jobs in Canada since 2014: “Oil prices are stuck at their lowest point in almost 30 years and show no signs of recovery in the near future” (Hutt). Alternative visions of the future are at stake. The alternative media articles point to opportunities for jobs and the economy in a low-carbon society, which they see developing with a sense of inevitability and momentum: “Renewable energy continues to grow. Wind and solar are the fastest-growing sources of energy in the world” (Hutt).

These articles position workers quite differently than the pro-extractivist corporate media generally do. Kahle sees neoliberalism and its austerity policies as interlinked attacks on both workers and the environment. In that view, common interests form the basis for alliances between workers

and environmentalists. Indeed, the alternative media writers are at pains to find evidence of such alliances: “Environmental groups and the Canadian Labour Congress have called for an end to fossil fuels by 2050” (Hutt).

One interesting contrast emerges. The critical articles fuse the desirability of a transition to renewable energy with its inevitability. The corporate media represent fossil fuels as inevitable but seem reluctant to portray them as desirable; rather, they are a “necessary evil.”

SUMMARY OF CRITICAL DISCOURSE ANALYSIS

Considering the critical discourse analysis in light of the quantitative analysis, the conventional extractivist view is predominant in corporate media, with a few pockets of dissenting views—the occasional guest or in-house columnist. The conventional view of pipelines can be expressed more assertively (modality) and with less need to identify and justify its presuppositions (e.g., fossil fuels = jobs = economic security) precisely because they are accepted—rendered as taken-for-granted common sense. Critical views, which find greater expression in progressive/alternative media, address a wider range of themes (economic diversification, sustainable development, workers’ welfare, climate security). Moreover, they are forced to explicitly challenge and argue against the conventional view, and to repeatedly explain their own presuppositions.

Blind spots?

Each of the two positions has characteristic blind spots. For instance, the extractivist orthodoxy overlooks Canada’s disproportionate complicity in the climate crisis through fossil fuel exports and the political power of energy corporations. The conventional view also downplays the elimination of jobs by technology; the instability of megaproject employment in a shifting global economy; the enormous economic cost of cleaning up abandoned oil and gas wells, particularly in Alberta; the missed opportunities for economic diversification, given very low fossil fuel royalty rates; and Canada’s failure to develop its own strategic oil reserves in the rush for export-oriented development. These are all problems that have nothing to do with environmentalist opposition to pipelines, and they receive little attention from corporate media. They sometimes surface in alternative media and book-length treatments.³⁷

Conversely, the anti-extractivist articles tiptoe around the monumental political and economic challenges of extricating contemporary economies from fossil fuels, as well as themes such as the paradoxical dependence on revenues from a fossil fuel-oriented economy to finance the technological infrastructure of a low-carbon economy, the technological limitations of renewable energy sources and their partial dependence on oil platforms,³⁸ and the extent of Indigenous support for certain fossil fuel developments, such as the Eagle Spirit Energy pipeline across northern BC, which would have double the capacity of the expanded Kinder Morgan pipeline were it to obtain sufficient investment.³⁹

The extractivist orthodoxy overlooks Canada’s disproportionate complicity in the climate crisis through fossil fuel exports and the political power of energy corporations.

37 For example, Kevin Taft, *Oil’s Deep State: How the Petroleum Industry Undermines Democracy and Stops Action on Global Warming—in Alberta, and in Ottawa* (Toronto: James Lorimer, 2017); Gordon Laxer, *After the Sands: Energy and Ecological Security for Canadians* (Madeira Park, BC: Douglas & McIntyre, 2015).

38 James Howard Kunstler, *The Long Emergency: Surviving the Converging Catastrophes of the Twenty-First Century* (New York: Atlantic/Grove, 2005).

39 Mike Laanela, “The B.C. pipeline project you’ve never heard of—and why it may succeed,” *CBC News*, May 5, 2018, <https://www.cbc.ca/news/canada/british-columbia/the-b-c-pipeline-project-you-ve-never-heard-of-and-why-it-may-succeed-1.4646892>.

Discussion and conclusion

Corporate and alternative media both frequently reinforce the dominant assumption that there is an inevitable trade-off between environmental protection and job creation.

FROM THIS EXPLORATORY STUDY, we can draw several preliminary conclusions.

The pipeline debate pits environmental protection against economic benefit, with alternative and corporate media as the proponents of each of these competing positions. However, while they choose different sides, corporate and alternative media both frequently reinforce the dominant assumption that there is an inevitable trade-off between environmental protection and job creation.

Beyond environmental risks, themes related to social justice and democracy (Indigenous rights, the public interest, threats to democracy, illegitimate approval process) comprise a secondary layer of anti-pipeline critiques. Parallel pro-pipeline arguments (public interest, pipeline safety, legitimate process) are present but less prominent; it is as if they are introduced only reactively. Indeed, our analysis of the KMP sample revealed that pipeline defenders addressed the issue of pipeline safety mainly in response to criticism.

Themes that challenge the entrenched narrative portraying the environment and economic prosperity as being in opposition appeared mainly in alternative media, but even there they were quite infrequent. Relatively little media attention was devoted to the economic risks of pipeline development, labour's environmental concerns and commitments, and the opportunities of a low-carbon economy and a just transition to it.

As we've seen, the KMP sample suggests that the ebb and flow of newsworthy events can affect the flow of themes and sources somewhat, but the basic pattern remains. While beyond the time frame of our samples, Prime Minister Justin Trudeau's approval of the Kinder Morgan Trans Mountain Expansion pipeline in November 2016 led to an apparent temporary drop-off in corporate media attention paid to the issue. This pattern is consistent with our finding of the high degree of access granted by the corporate media to politicians and governments, and it suggests that the pipeline projects we examine in this report acquired news resonance as political controversy more than a scientific, economic or environmental question.

As discussed, corporate and alternative media each privilege a contrasting theme about pipelines—economic benefits and social justice-related criticisms, respectively. To be sure, it would be inaccurate to treat either corporate or alternative media coverage as homogeneous. Our alternative media samples are too small to permit reliable comparisons between individual outlets, but impressionistically, the *National Observer* is oriented toward environmental politics with human interest angles; *The Tyee* offers analysis of the political economy of energy; and *rabble.ca* is the most receptive to union and social democratic perspectives.

But overall, alternative media have not, in this sample, substantially addressed the concerns of resource and energy sector workers in the rural hinterlands of BC about income security and community survival. The umbrella of social justice still needs to be adequately extended to their role in transitioning to a low-carbon economy. Impressionistically, Labour Environmentalism and Just Transition appear to find proportionately greater play in publications by and for workers, such as *Rank and File*; but our difficulty in locating relevant, publicly available articles in union-produced outlets suggests they have only a marginal presence in Canada's media ecology. This is not to deny the importance of the continued development of the Just Transition concept within the labour movement and, more broadly, of media by and for workers, who have relatively little voice in corporate and alternative media on the question of expanding fossil fuel infrastructure.

Thus, while job creation is often touted as a rationale for high-carbon energy projects, the actual job-holders—energy sector workers—appear to be largely missing from news reportage. We suggest several reasons for this relative absence.

First, the prospects for jobs that may or may not eventually exist due to pipeline projects are much less newsworthy than mass layoffs occurring in an existing industry, with the associated disruption of families and communities.

Second, labour-oriented journalism in corporate media in North America shrivelled during the second half of the 20th century. As newspapers shifted their target market from a working- and middle-class readership to “upscale” middle-class readers, labour beat reporters disappeared, labour news became subsumed into business reporting, and worker struggles were increasingly framed in terms of consumer inconvenience rather than labour rights.⁴⁰ Faced with declining membership relative to the size of the workforce and with a fragmenting media ecology, trade unions' in-house media seem unable to fill the gap in the broader public sphere. For their part, urban alternative media tend to be oriented toward millennial readers, many of whom have little connection to trade unions or the industrial workforce. While worker-oriented journalism could contribute much to media pluralism and democracy in Canada, there doesn't seem to be a commercially viable market for it.

Third, as previously noted, the concept of climate action and transition to a low-carbon economy has been divisive within the labour movement. Canada's largest private sector union, Unifor, and its predecessor unions have made a bold commitment to a just transition.⁴¹ Public-sector unions have endorsed clear pro-climate policies. But construction and energy workers continue to be drawn to the promise of employment through fossil fuel infrastructure projects. Public-sector unions may not want to antagonize other parts of the labour movement, and other issues (such as public service cutbacks) could be more immediately pressing than climate or environmental policies.

Further research would be necessary to establish whether the content patterns found in this study are generalizable. If they are, Canada's media system arguably reflects and contributes to the above-mentioned rift in progressive politics. The interests of energy sector workers are vulnerable to rhetorical appropriation and self-serving definition by extractivist capital. Alliances between middle-class environmental and labour movements are rendered more difficult through the entrenchment of a jobs-versus-environment narrative. That class-related cleavage overlaps with

While job creation is often touted as a rationale for high-carbon energy projects, the actual job-holders—energy sector workers—appear to be largely missing from news reportage.

40 R.C. Martin, *Framed!: Labor and the Corporate Media* (Ithaca, NY: ILR Press, 2004).

41 Shannon J. Daub, “Negotiating Sustainability: Climate Change Framing in the Communications, Energy and Paperworkers Union,” *Symbolic Interaction* 33, no. 1 (2010): 115–40, <http://doi.org/10.1525/si.2010.33.1.115>.

an urban/rural divide that has become prominent in recent crucial elections—such as the US and French presidential elections and the Brexit referendum. In BC, the rural electorate in resource industry communities can be pivotal in determining whether this politically polarized province is governed by the business-oriented Liberal Party or the social-democratic New Democratic Party, currently in office with support from a resurgent Green Party that holds the balance of power in the legislature. While extractivist capital will attempt to exert political influence regardless of who is in office, the partisan difference does matter. The current NDP government’s stance on certain energy megaprojects (notably the Kinder Morgan pipeline, but not the Site C hydroelectric dam) has been notably more oppositional to the fossil fuel industry than the previous Liberal government was.

Environmental health may well be incompatible with the current economic system, and not job creation as such.

Environmental health may well be incompatible with the current economic system, and not job creation as such. Eco-socialists see ecological destruction as hard-wired into the governing logic of global capitalism; from this viewpoint, the solution is not prioritizing the environment over the existing economy, but restructuring the economy itself through political struggle.⁴² Such a perspective is barely evident even in alternative media, but Bernie Sanders’ 2016 US presidential campaign, as well as surveys showing that American millennials prefer socialism to capitalism,⁴³ suggest that system change may not be as outlandish as it seemed during the heyday of neoliberal triumphalism. But there is a new challenge emerging from the breakdown of neoliberalism’s ideological dominance—right-wing populism and ethno-nationalism, bordering on fascism. It is an ideology sympathetic to unrestricted extractivism and contemptuous of international cooperation on climate policy. The rise of right-wing populism illustrates the danger of urban-based political, professional and media elites ignoring people’s discontent. Effective climate action isn’t likely to happen without a strong base among labour, and workers’ rights aren’t likely to flourish without people challenging the power of extractivist capital.

We conclude this report with two brief comments on implications for policy and strategy.

First, alternative media provide analyses and sources that help counterbalance the apparent extractivist orientation of the corporate press. They make a valuable contribution to well-rounded public discussion and offer perspectives on energy, climate and economic policies that are evidently under-represented in the corporate press. Yet even though corporate media are facing declining paid circulation, newspaper closures and mergers, and falling revenues in the internet era, the playing field is far from level. The relative success of outlets like *The Tyee* and the *National Observer* is encouraging, but they don’t have the investment capital, newsgathering resources, audience reach, corporate alliances or access to distribution networks to compete with the agenda-setting power of corporate media. There is a democratic case to be made for public funding of independent non-profit journalism within a pluralist media system. Media reform is a neglected but important part of the struggle for a more just and sustainable economy.⁴⁴ The federal government has ample experience supporting public broadcasting, magazines, the arts, and TV and film production through public institutions and programs. Why not journalism?⁴⁵

42 Fred Magdoff and John Bellamy Foster, *What Every Environmentalist Needs to Know About Capitalism* (New York: Monthly Review Press, 2011).

43 Max Ehrenfreund, “A Majority of Millennials Now Reject Capitalism, Poll Shows,” *Washington Post*, April 26, 2016, <https://www.washingtonpost.com/news/wonk/wp/2016/04/26/a-majority-of-millennials-now-reject-capitalism-poll-shows/>.

44 Benedetta Brevini and Graham Murdock, eds., *Carbon Capitalism and Communication: Confronting Climate Crisis* (Switzerland: Palgrave Macmillan, 2017).

45 Hackett, 2015.

Second, labour's voice in the media system is muted. There are many reasons why a movement for a just transition has not gained greater traction. Governments have not sufficiently committed to retraining and other supportive measures, and thus there are few working examples for just transition advocates to highlight. But part of the problem lies in the lack of public arenas for exploring the common ground between workers and environmentalists regarding a low-carbon economy. Engaging the public imagination about such a necessary transition would be a valuable goal for corporate and alternative media, as well as media produced by the labour movement itself.

DIVISION OF LABOUR

The bulk of the content analysis presented in this report was conducted by the NewsWatch Canada undergraduate seminar at Simon Fraser University in fall 2016. The students' work was closely supervised and checked by the report's two co-authors. Robert Hackett specified the key theme and source variables used to perform content analysis on both samples; the two groups of students analyzing the samples kept logs of coding decisions and jointly elaborated the variable definitions when necessary. Students took the lead in selecting the articles that made up the samples, with input from Hackett and Philippa Adams. Adams helped design and review the tests of the reliability (consistency) of coding within the two teams of student researchers.

SAMPLING PROCEDURE

The selection of the samples was limited by practical considerations—predetermined ceilings on the number of articles the students had time to code, and the nature of the databases we used, which were not easily searched chronologically and sometimes differed from each other in how useful particular search terms were for obtaining an appropriate and comparable sample. In the case of some of the news outlets, all the relevant items published during the monitoring period were coded; with others, a predetermined number of the “most relevant” articles (as determined by keywords and search engine algorithms) were coded.

The CANP sample of 129 articles was obtained as follows. Thirty articles were selected from each of the “mainstream” news outlets the *Vancouver Sun*, the *Edmonton Journal* and the *Globe & Mail*, for a total of 90. They were located in the Canadian Newsstream database using the keywords “pipeline” and “oil” or “tar,” and the top 30 “most relevant” articles (according to the database's undisclosed algorithmic formula) from each outlet were coded.

The process of searching alternative media for the CANP sample varied with the nature of each outlet's archive—in one case, the search was performed through the outlet's website; in the other two, an external search engine. All 13 of the *Ricochet* articles identified through the keywords “oil pipeline” using the website's search bar were included. The team then selected the 13 “most relevant” articles (as determined by the PageRank algorithm, which evaluates links to other webpages) from each of *The Tyee* and the *National Observer*, using a Google search query for the news outlet's name, date range, and the keywords “oil pipeline.”

Most articles in the KMP sample were located through each news website's respective search feature, using the search terms “Kinder Morgan” or “Kinder Morgan Pipeline,” prioritizing according to relevance, and deleting articles that merely mentioned Kinder Morgan and non-pipeline topics. *Vancouver Sun* articles, however, were located through the LexisNexis database; given their large volume, only every third article was coded. For the other outlets, all relevant articles were included.

VARIABLES: SOURCES

Twenty categories of sources were identified prior to the final coding process (although several categories were ultimately removed from the data analysis, due to insufficient agreement between coders, which rendered those categories unreliable):

- Provincial or Federal Governments and Politicians (e.g., Prime Minister, Premier, MP, MLA, spokesperson for them)—includes references to former Federal Government, Stephen Harper as previous Prime Minister.
- Regulatory Bodies—Canadian regulatory bodies, e.g., National Energy Board, government environmental assessment panel, marine transport safety regulator, etc.
- Senior Government Officials—other official/bureaucrat from senior government (federal or provincial); these are appointed civil servants, not elected politicians, e.g., deputy ministers, officials in provincial or federal offices; spokespeople for a government. They may be fairly rare in news, as they normally don't deal directly with the media.
- Opposition Party Politicians—federal or provincial opposition party or politician.
- City Mayors and Governments—mayor, councillor, fire chief, city officials, etc., from municipal-level governments (but not Police—given their importance vis-à-vis protests, they have their own category below).
- Environmental Groups—organized environmental advocacy group, environmentalist spokesperson or advocate, e.g., David Suzuki Foundation, Wilderness Committee, BROKE, Greenpeace, etc. Also includes other groups, e.g., social justice organizations supporting environmental causes on this occasion—except code Unions separately. It could also include people who are accessed as distinguished environmental advocates (as distinct from more “neutral” experts or scientists). For example, normally David Suzuki would be treated as an advocate. (Don't include events, e.g., the March for Climate, as a source/group.)
- Protesters—non-institutional protesters, activists other than environmental advocates; this would usually be someone who was in the news due to their actions. Includes lawyers for protesters. These are distinct from Environmental Groups (above) in not acting as employees or spokespeople for organized groups.
- Pipeline Companies—specific pipeline company or project (given that this is the focus of the research): e.g., Kinder Morgan, Trans Mountain Expansion Project, Northern Gateway, Energy East, Enbridge, TransCanada Pipeline Co., Keystone XL.
- Fossil Fuel Industry Organizations—other companies, advocacy groups or organizations that are part of, or directly connected to, the fossil fuel industry—oil companies, coal companies, pro-oil lobby groups, industrial associations like the Canadian Association of Petroleum Producers.
- Trade Unions—includes labour federations, officials, leaders or spokespeople for organized labour, e.g., Unifor, construction unions, Canadian Labour Congress.
- Rank-and-file Workers—ordinary workers, usually in resource or energy sectors, or sectors affected by them, not speaking on behalf of a labour organization.
- Green Business—renewable energy sector, companies and entrepreneurs, green technology sector, recyclers; includes general references to green technology, renewables, solar power, wind power, etc., as well as specific organizations or people.

- Courts and Judges—Canadian judiciary or courts, e.g., Federal Court of Appeal, Supreme Court.
- First Nations—Canadian First Nations, Indigenous leaders and spokespeople, Indigenous treaties and land rights.
- Policy Institutes—“think tanks,” e.g., Canadian Centre for Policy Alternatives, Fraser Institute, C.D. Howe Institute, Canada West Foundation.
- Police and Law Enforcement Agencies—not CSIS or spy agencies; RCMP, city police, security personnel at public hearings, etc. (often present at protests).
- Other Canadian Institutions—institutions in Canada other than those coded above, e.g., banks, businesses outside the fossil fuel or renewable energy sectors, universities, hospitals, fire departments, Coast Guard, military, media organizations, etc. Use this code for other organizations with structure, spokespeople, etc.
- Experts, Scientists, Academics—when used in the story for their presumed expertise, rather than related to their advocacy work. E.g., David Suzuki, while an accredited scientist, is frequently regarded by journalists as an environmentalist; presented as such, he would not be coded in this category.
- Community Groups and Publics—ordinary people (other than workers), consumers, spectators, bystanders, community groups (other than environmental or labour), publics, public opinion polls, social groups (other than unions or workers) affected by pipelines.
- Other Groups—any sources who are quoted or major parts of the story that are not included in the above categories, such as celebrities or representatives of foreign governments.

VARIABLES: THEMES CRITICAL OF PIPELINE PROJECTS

The initial scanning of the two samples, along with the preliminary research questions, yielded 11 themes that were critical of pipeline projects and/or fossil fuel development:

- Climate Change: pipeline contributes to climate change/global warming; makes transition to low-carbon economy more difficult; contradicts COP 21 Paris commitments. (Does *not* encompass the mere mention of climate change, unless linked to a criticism of pipeline/policy.)
- Other Environmental Risks: apart from climate change, other environmental, public health and social risks and costs (pipeline or tank farm explosions or fires; harbour collisions; marine oil spills; safety concerns; human health risk, e.g., cancer from spills, fumes; threat to animal species or habitat, e.g., orcas; destruction of trees, wilderness; air pollution; water contamination.)
- Jobs Risk: not the best way to create jobs; lack of permanent or high-quality jobs; export of jobs to overseas refineries; use of temporary foreign workers, displacing Canadian workers; industry practices, technology and capitalism are greater risks to jobs than environmental protection or shift to low-carbon economy; denial that pipelines/fossil fuel exports create sufficient numbers of jobs; few jobs relative to amount invested, etc.
- Other Economic Risks: other economic downsides and risks, apart from jobs (threat to other economic sectors, e.g., tourism; monetary cost to taxpayers, communities; low oil

prices make project untenable); assertion that economic benefits of pipelines are minimal or exaggerated; insufficient royalties or revenues; lack of economic diversification.

- First Nations Rights and Opposition: threat to or infringement of Indigenous people's rights; First Nations declare opposition to pipelines.
- Threat to Public Interest: a general claim that fossil fuel expansion is not in the interest of local communities, the province or nation; is against the public interest; undermines Canada's international reputation; threatens Canada's energy security or future needs; gives too much control over Canadian resources or policies to foreign governments or corporations.
- Threat to Democracy: the process or construction of pipelines, or the power of carbon capital, poses a threat to democratic decision-making, representative government, or citizens' rights. E.g., energy corporations have too much power, threaten local or Canadian democracy; corporations as bullies; threat to civil liberties (e.g., SLAPP suits); politicians as controlled by special interests or pursuing vested interests of fossil fuel corporations.
- Flawed Approval Process: this variable concerns the consultation and decision-making process for approval/disapproval of pipelines by regulators and governments. Includes process-related claims in arguments that oppose or are critical of pipeline construction. E.g., flawed, rigged or illegitimate process by National Energy Board, federal or other governments; regulatory scandal; conflict of interest of regulators; political betrayal by politicians. (Does not include criticisms of decision-making process for delaying pipelines, over-regulation as too costly, etc.)
- Labour Environmentalism: alliances between trade unions or workers and environmental groups; labour opposition to pipelines on environmental grounds; union concern for environment.
- Need for a Just Transition: opposition to pipelines on the basis of support for transitioning to a low-carbon economy, coupled with concern for the well-being, jobs and income of workers who could be adversely affected by such a transition (this is a fairly specific variable, given its importance to pro-environmental labour groups).
- Green Opportunities: opposition to pipelines on the basis of equivalent or superior energy and economic options associated with renewable energy and/or a lower-carbon economy.

VARIABLES: THEMES SUPPORTIVE OF PIPELINE PROJECTS

Eleven positive or neutral claims about pipelines and fossil fuels were identified:

- Jobs: Pipeline projects will create employment in Canada, whether short-term or long-term; failure to build pipelines destroys jobs.
- Other Economic Benefits: other than employment—e.g., exports; economic development, especially for rural regions; tax and royalty revenues, balance-of-trade considerations.
- Pipeline Safety: claims of efficient spill response on land or sea; track record of sound safety management; denial of significant health or environmental risks; responsible resource development; pipeline corporations described as responsible; pipelines safer than rail transport; care is taken to protect the environment and prevent accidents.

- Environmental Benefits: pipelines provide revenues to help combat climate change or other environmental problems, or finance transition to a greener economy; materials transported by pipelines replace dirtier fuels. (This is a narrower set of claims than Pipeline Safety, which alleges lack of harm; this one asserts environmental benefits. But arguments about the “ethical benefits” of fossil fuel development, e.g., reduced dependence on imports from foreign dictatorships, are coded under Public Interest.)
- Legitimate Process: claims about the decision-making process for approval/disapproval of pipelines by regulators and governments said to favour pipeline completion. E.g., review process by NEB, ministerial review panel, etc., is valid, effective, legitimate; consultations were broad and/or responsive to community concerns, public opinion; relevant evidence was evaluated; the public had its say, etc. Includes claims that the approval process for pipelines, fossil fuel exports, etc., is too restrictive.
- Labour Support: workers support the project, unions have endorsed it, etc.; worker hostility to environmentalists, anti-pipeline protesters.
- Public Interest: general claims that pipelines benefit Canada, are in the public/national/provincial/community interest; enhance energy security; reduce dependence on foreign oil; other ethically based arguments.
- First Nations Support: First Nations have been adequately consulted; their rights have been respected; First Nations have endorsed it; their communities and social development will benefit.
- Fossil Future: fossil fuels are likely to remain the dominant source of energy for the foreseeable future; pipelines are necessary to meet current and future demand.
- Illegitimate Opposition: opponents of pipelines are uninformed, ill-intentioned, extremist, self-serving, hypocritical, law-breaking, disruptive, etc.
- Other Arguments: a residual category covering claims not mentioned above. In practice, the list above included almost all the pipeline-supportive claims, and this category was not used in the statistical analysis.

INTER-CODER RELIABILITY TESTS

Inter-coder reliability tests were carried out for both samples. Variables that lacked an acceptable level of consistency between coders were discarded from the analysis.

The CANP group began with pilot coding. Following the first inter-coder reliability test, the team made clarifications to its coding protocol for three variables that applied to sources mentioned in an article (Canadian Regulatory Bodies, Other Canadian Institutions, Other Sources) and two Critical Theme variables (Other Economic Risks, Public Interest Threat); the team then ran a second inter-coder reliability test. Both rounds of tests were done with Cohen’s kappa, using percentage agreement where the sample was too small to support Cohen’s kappa. For Cohen’s kappa, values above .41 are generally seen as acceptable agreement among coders. However, this measure varies across researchers and research communities.⁴⁶ In both rounds of inter-coder reliability tests,

⁴⁶ Several SPSS (Statistical Package for the Social Sciences, a standard data-analysis program) online forums use .41 as a marker, per Steve Stemler, “An Overview of Content Analysis,” *Practical Assessment, Research & Evaluation* 7, no. 17 (2001). At the top of page 7 is a table of kappa values, with .41 considered “moderate.” Stemler’s table is taken from benchmarks that appear in J.R. Landis and G.G. Koch, “The Measurement of Observer Agreement for Categorical Data,” *Biometrics* 33 (1977): 159–74.

the CANP coding group was fairly reliable, with the exception of relatively lower values given to three source variables in the second round of tests: Canadian Regulatory Bodies (.771;.771; 1.00); City Governments (1.00;.543;.543); Other Sources (.600;.385;.619). For percentage agreement tests, acceptable probability of agreement levels is somewhat disputed in the literature, but where CANP used percentage agreement it was quite high (87.5 per cent or above).

The KMP team began with an inter-coder reliability test on its initial pilot coding of 16 articles, which illuminated agreement problems within this group. The group discussed ways of remedying this, addressed inconsistencies and ran a second, marginally improved inter-coder reliability test. Finally, the team completed a third such test in which they compared reliability among all four group members. This test showed improvement in most areas, and the most problematic variables were excluded from the analysis.

Appendix B: Tables

Table 1: Canadian pipelines (CANP) sample: Coverage of critical and positive themes: comparison between mainstream and alternative media.				
	Coverage overall in % (N = 129)	Coverage in mainstream in % (N = 90)	Coverage in alternative in % (N = 39)	Chi-square significance (N = 129)
Critical themes				
Climate Change	39.5	38.9	41.0	.968
Environmental Risks	47.3	44.4	53.8	.271
Jobs Risk	4.7	3.3	7.7	.280
Other Economic Risks	20.2	21.1	17.9	.681
First Nations Rights	25.6	22.2	33.3	.367
Public Interest Threat	22.5	22.2	23.1	.990
Threat to Democracy	5.4	2.2	12.8	.015
Flawed Process	16.3	13.3	23.1	.383
Labor Environmentalism	0.8	0.0	2.6	.127
Just Transition	5.4	5.6	5.1	.579
Green Opportunity	6.2	3.3	12.8	.040
Average	17.6	16.1	21.2	
Positive themes				
Jobs	20.9	27.8	5.1	.015
Economic Benefit	36.4	47.8	10.3	.000
Pipeline Safety	20.9	28.9	2.6	.003
Environmental Benefits	10.1	12.2	5.1	.442
Legitimate Process	20.2	24.4	10.3	.172
Labour Support	0	0	0	n/a
Public Interest	34.9	47.8	5.1	.000
First Nations Support	6.2	6.7	5.1	.739
Fossil Future	11.6	16.7	0	.007
Illegitimate Opposition	19.4	26.7	2.6	.006
Average	18.1	23.9	4.6	

Table 2: Kinder Morgan protests (KMP) sample: Coverage of critical and positive themes: comparison between mainstream and alternative media.

	Coverage Overall: % of articles mentioning each theme (N = 170)	Coverage in Mainstream: % of articles mentioning each theme (N = 78)	Coverage in Alternative: % of articles mentioning each theme (N = 92)	Chi-Square Significance (N = 170)
Critical themes				
Climate Change	37.1	21.8	50.0	.000
Environmental Risks	51.2	39.7	60.9	.021
Jobs Risk	10.6	2.6	17.4	.007
Other Economic Risks	22.9	11.5	32.6	.005
First Nations Rights	37.6	20.5	52.2	.000
Public Interest Threat	45.9	39.7	51.1	.279
Threat to Democracy	40.6	28.2	51.1	.010
Flawed Process	44.1	37.2	50.0	.010
Labour Environmentalism	3.6	2.6	4.4	.623
Just Transition	3.5	1.3	5.4	.144
Green Opportunity	5.9	3.8	7.6	.299
Average	27.5	20.8	34.8	
Positive themes				
Jobs	10.0	11.5	8.7	.538
Economic Benefit	12.9	12.8	13.0	.646
Pipeline Safety	8.8	10.3	7.6	.544
Environmental Benefits	2.4	3.8	1.1	.237
Legitimate Process	11.2	11.5	10.9	.890
Labour Support	0.6	0.0	1.1	.356
Public Interest	7.1	12.8	2.2	.023
First Nations Support	2.9	2.6	3.3	.789
Fossil Future	3.5	6.4	1.1	.061
Illegitimate Opposition	6.5	10.3	3.3	.065
Average	6.6	8.2	5.2	

Table 3: Kinder Morgan protests (KMP) sample: Presence of source types in alternative and mainstream media.

Sources	Mainstream media: % of articles with each source type (N = 78)	Alternative media: % of articles with each source type (N = 92)	Chi-square significance (N = 170)
Pipeline Companies	94.9	98.9	.037
Canadian Regulatory Body	62.8	63.0	.329
Protesters	59.0	57.6	.946
Courts	50.0	41.3	.657
City Government	48.7	43.5	.071
Community Groups and "The Public"	38.5	53.3	.144
Ordinary Workers	37.2	14.1	.002
Provincial or Federal Government Politicians	34.6	64.1	.000
Police and Law Enforcement Agencies	29.5	29.3	.637
First Nations Spokespeople	26.9	60.9	.000
Organized Environmental Groups	24.4	32.6	.199
Fossil Fuel Industry Organizations	20.5	37.0	.054
Experts, Scientists, Academics	16.7	31.5	.029
Provincial or Federal Government Civil Servants/Officials	10.3	19.6	.087
Policy Institutes	6.4	7.6	.651
Trade Unions	1.3	12.0	.056
Green Businesses	0.0	2.2	.190

Table 4: Canadian pipelines (CANP) sample: Mentions⁴⁷ of source types in mainstream and alternative media.

Sources	Mainstream media: % of articles that include each source type (N = 90)	Alternative media: % of articles that include each source type (N = 39)	Chi-square significance (N = 129)
Pipeline Companies	78.8	89.7	.355
Provincial or Federal Government Politicians	75.5	71.8	.049
Canadian Regulatory Body	55.5	53.9	.894
Fossil Fuel Industry Organizations	36.6	12.8	.028
Community Groups and "The Public"	34.4	35.9	.615
First Nations Spokespeople	33.3	46.2	.000
City Government	31.1	25.6	.835
Opposition Politicians	28.8	10.3	.087
Other Canadian Institutions	23.3	20.5	
Organized Environmental Groups	22.2	56.4	.000
Experts, Scientists, Academics	20.0	35.9	.274
Senior Government Officials	13.3	20.5	.252
Ordinary Workers	6.6	10.3	.303
Policy Institutes	6.6	12.8	.294
Protesters	3.3	30.8	.000
Courts	2.2	10.3	.191
Trade Unions	1.1	5.1	.256
Police and Law Enforcement Agencies	1.1	5.1	.078
Green Businesses	0.0	5.1	.030

⁴⁷ "Mentioned" combines three values, including primary quoted or paraphrased, secondary quoted or paraphrased, and mentioned but not quoted.

Table 5: Kinder Morgan protests (KMP) sample: Correlation of labour's presence in articles, with the presence or absence of critical or positive themes.

	Themes present as % of all articles (N = 170)	Themes present as % of articles where labour is present (N = 52)	Themes present as % of articles where labour is absent (N = 118)	Chi-square significance
Critical themes				
Environmental Risks	51.2	51.9	50.8	.306
Public Interest Threat	45.9	57.7	40.7	.102
Flawed Process	44.1	38.5	46.6	.404
Threat to Democracy	40.6	55.8	33.9	.025
First Nations Rights	37.6	32.7	39.8	.671
Climate Change	37.1	36.5	37.3	.399
Other Economic Risks	22.9	23.1	22.9	.128
Jobs Risk	10.6	17.3	7.6	.132
Green Opportunity	5.9	3.8	6.8	.454
Labour Environmentalism	3.6	7.7	1.7	.111
Just Transition	3.5	1.9	4.2	.451
Positive themes				
Economic Benefit	12.9	7.7	15.3	.369
Legitimate Process	11.2	13.5	10.2	.530
Jobs	10.0	9.6	10.2	.912
Pipeline Safety	8.8	5.8	10.2	.351
Public Interest	7.1	3.8	8.5	.296
Illegitimate Opposition	6.5	5.8	6.8	.805
Fossil Future	3.5	3.8	3.4	.882
First Nations Support	2.9	1.9	3.4	.602
Environmental Benefits	2.4	0.0	3.4	.179
Labour Support	0.6	1.9	0.0	.131



The Corporate Mapping Project shines a bright light on the fossil fuel industry by investigating the ways corporate power is organized and exercised. The initiative is a partnership of academic and community-based researchers and advisors who share a commitment to advancing reliable knowledge that supports citizen action and transparent public policy making.

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