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Communication

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Creating a New “Normal”

Using air pollution labels on gas pumps as a step in addressing climate challenges

In early 2013, I launched a not-for-profit organization that's asking municipalities to require gasoline retailers to place climate change and air pollution information labels on gas pump nozzles. The idea is similar to the risk disclosures we see on many common products. In a short period, the concept has received media attention across North America and the world and is now beginning to get traction in local government. Recently, municipal councils in West Vancouver, Berkeley, and San Francisco have all directed staff to pursue the concept.

Over a hundred academics from disciplines including the natural sciences, social sciences, public policy, health, and business at universities across North America have all endorsed the concept.¹ Canadian non-governmental organizations such as the David Suzuki Foundation, the Canadian Association of Physicians for the Environment, and the Clean Air Partnership have similarly endorsed the idea.² The gas pump label idea even made it to the United Nations Climate Change Conference in Warsaw, Poland (COP19) where a delegate said, “I’ve been to all 19 COP meetings and I’ve never seen an idea so simple yet so powerful.”



Climate change and air pollution information on gas label.

Despite this progress, the idea is still fairly new, and decision makers may wonder what impact a seemingly simple proposal will have on complex challenges like climate change and air pollution. Research from psychology, sociology, economics, and communications theory provides insight.



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1 Our Horizon, Endorsements from Academics and Experts, <<http://ourhorizon.org/academic-endorsements>>.

2 Our Horizon, Endorsements from NGOs, <<http://ourhorizon.org/endorsements>>.

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Psychology: The Labels Create Immediate Feedback

Climate change can be understood as a feedback problem: there is a delay between cause and effect. We get little to no feedback from our actions today, so there is no indication that we need to change our behaviour.

Psychologists observe that we tend to prefer interests that are small and near in time relative to those that are significant but experienced farther in the future. This effect is known as “hyperbolic discounting” or the “current moment bias.”

The warning labels counteract this effect by bringing future consequences – extreme weather, property damage, and ocean acidification – into the here and now. In doing so, they create immediate feedback to provide greater impetus to address climate change.

Sociology: The Labels Address a Problem of Diffusion of Responsibility

Climate change can also be understood as a problem of diffusion of responsibility. As individuals, our contributions to the problem are small; but, collectively, our actions alter the chemistry of our planet. Social psychologists observe that when responsibility is shared among many, we’re actually less likely to act. It’s the paradox of “everyone is responsible, so no one is responsible.”

The labels address this problem by locating responsibility. The placement of the image on the nozzle takes a problem

of diffuse origins and locates responsibility right in the palm of your hand. As simple as the concept is, there is actually nothing else that currently connects us to the problems of climate change in such a direct way.

Economics: The Labels Communicate Externalities in a Qualitative Way

Climate change is also a problem of negative externalities. Externalities are costs or benefits that result from the use of a product, but are not reflected anywhere in its price. In the context of fossil fuels, we often hear negative externalities expressed as “hidden costs.” Carbon taxes and cap-and-trade regimes seek to internalize these harms to convey the “true cost” of fossil fuels to the market.

Gas pump warning labels are simply a qualitative way of capturing and communicating externalities to the marketplace: what price seeks to convey in quantitative terms (using dollars and cents), the label communicates in qualitative terms (using image and text). In the abstract, both approaches achieve the same thing. On the ground, the warning label nurtures a focus that engages our sense of humanity in a way that a price signal never could. This qualitative approach is particularly important, as behavioural economists observe that pricing externalities can sometimes switch off moral cues that otherwise regulate human behaviour.³

Communication: The Medium Is the Message

As renowned communications theorist Marshall McLuhan observed, “The medium is the message.” The way in which people typically consume information on climate change is through media such as newspapers, internet, television, and film. While these media are important vehicles for communication, they unavoidably

present the problem as distant or separate and are consumed in a passive manner by virtue of their form. By contrast, the labelling proposal directly links the consumption of fossil fuels to the impacts of climate change: the medium – the gas pump nozzle – is the message. It engages the reader in a manner that transitions them from *passive observer* to *active participant*.

How These Labels Change the Conversation

Discourse on climate change in Canada tends to focus on points of extraction (e.g., oil sands and offshore drilling) or means of transportation (e.g., pipelines and shipping). But, these areas of focus appear to be misplaced if our true concern is greenhouse gas emissions. A well-to-wheel lifecycle analysis reveals that the vast majority of greenhouse gas emissions come from end use; emissions from extraction and processing pale in comparison to emissions from vehicle combustion.⁴ When it comes to oil, the problem is in cities and towns where the end product is actually being used.

Unfortunately, we rarely question the simple act of pumping gas. There is a complete disconnect – one that is perhaps compounded by the distancing effect of our upstream focus. The act of going to a gas station and filling up a car has been normalized for several generations. The warning labels take this unexamined act and de-normalize it. By creating a sense of dissatisfaction with the prevailing mobility solution, they stimulate demand for alternatives and shape a social environment that favours reform. The labels disrupt the status quo, shake us out of our sense of complacency, and provide impetus for us to do better.

While the labels will likely cause some individuals to reduce their emissions through carpooling or modal shifts,

3 Diana Zlomislac, “Daycare late fees no deterrent, study finds,” *Toronto Star*, 4 July, 2008, <www.thestar.com/life/health_wellness/2008/07/04/daycare_late_fees_no_deterrent_study_finds.html>.

4 Natural Resources Defense Council, “Setting the Record Straight: Lifecycle Emissions of Tar Sands,” (November 2010), <http://docs.nrdc.org/energy/files/ene_10110501a.pdf>.

they will more importantly result in a shift in our collective demand to facilitate meaningful action on climate change and air pollution. Politicians will have more support to pass climate legislation, invest in public transit, build bike lanes, and develop complete communities. Businesses will also innovate to meet the needs of a shifting market. The idea is a catalyst for a community-wide conversation about how to transition to a more sustainable future.

Do Municipalities Have Legal Authority to Pursue It?

Environmental lawyer Dianne Saxe wrote about the idea in the September 2013 issue of *Municipal World* and concluded that the combined effects of local air pollution and climate change on communities “could be enough of a municipal nexus to support a labelling by-law.” She added that there’s no way of knowing until a community tries it and concludes by asking, “Where is the next Hudson?”

Since the article was published, Our Horizon has produced a 40-page research

document that provides the legal foundations for municipal jurisdiction.⁵ While this research is Ontario-focused, the general arguments would still be relevant for municipalities in other provinces. Our Horizon is currently working with law students and lawyers in other provinces to help adapt this report.

If a council wishes to pursue the concept but is unsure about its authority to do so, it can simply request that the province amend its municipal legislation to specifically empower municipalities to pass the by-law, instead of relying on its existing powers.

A Final Question: Why Wouldn't We Have These Labels?

I’ve spent close to two years answering the question, “Why should we have these labels?” but lately I’ve been asking others to consider the question, “Why wouldn’t we have these labels?” All we’re asking is for the producers of a product to disclose the risks of its consumption to consumers. While this may ruffle a few

feathers, the proposal really shouldn’t be controversial. Scientists have identified that the burning of fossil fuels is altering the basic chemistry of our planet. When I was born, the world was at 337 parts per million (ppm) of carbon dioxide in our atmosphere; we’re now at 400 ppm. Take a moment to think about that: *we are altering the fundamentals of our biosphere.*

If there is any product that merits a warning label, this is it. Climate change is the greatest challenge of our time; if we don’t even have the courage to put a simple sticker on a gas pump, what hope do we have in actually addressing the problem?

Citizens from all over the world have contacted us to replicate this campaign in their own communities. The idea is primed to go global, but it will take leadership from Canadian municipalities to make it happen. *MW*

⁵ Our Horizon, “#FaceTheChange Changing Communities in a Changing Climate: Climate Change & Air Pollution Warning Labels on Gas Pumps,” <<http://ourhorizon.org>>.

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