Design Thinking, Governance and Public Policy: A Green Position Paper

El Pensamiento De Diseño, De Gobierno Y Políticas Públicas: Un Verde Documento De Posición

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Resumen

El desarrollo de la política del gobierno podría hacer un buen uso del diseño pensando sobre todo cuando se trata de lidiar con los problemas de uso de energía. La humanidad se enfrenta a una vida y la muerte desafío ecológico vis-à-vis el calentamiento y el cambio climático global. Hay algunos que niegan esto, pero la preponderancia de la opinión científica es que la actividad humana es o bien la causa del calentamiento global o, al menos, está contribuyendo a ella. El peligro al que nos enfrentamos es un efecto invernadero desbocado. A medida que los casquetes polares se derriten menos luz solar es reflejada de vuelta al espacio y que los océanos se calientan liberan gases CO2 y son incapaces de absorber CO2 que estamos generando. Estos dos efectos se alimentan el uno del otro y es posible que puedan dar lugar a un efecto invernadero huir como la que tuvo lugar en Venus hace eones. Esto tendría efectos desastrosos y podría significar el fin de la vida humana en el planeta. Otro peligro, menos grave, pero aún grave, al que nos enfrentamos es el agotamiento del petróleo, una fuente de valor de ambos combustibles y productos químicos para la fabricación. Y por supuesto no es el problema actual de la contaminación del aire y el agua, la lluvia ácida y similares.

Palabras Clave: Desarrollo de la política del gobierno podría hacer un buen uso del diseño pensando sobre todo cuando se trata de lidiar con los problemas de consumo de energía. La humanidad se enfrenta a una vida y la muerte desafío ecológico vis-à-vis el calentamiento y el cambio climático global.

Abstract

To which can be added governance, policy development and politics —RKL

Government policy development could make good use of design thinking especially when it comes to dealing with energy use issues. Humanity faces a life and death ecological challenge vis-à-vis global warming and climate change. There are some who would deny this but the preponderance of scientific opinion is that human activity is either the cause of global warming or at least is contributing to it. The danger we face is a runaway greenhouse effect. As the polar caps melt less sunlight is reflected back into space and as the oceans warm they release CO2 gas and are unable to absorb as much CO2 as we are generating. These two effects feed on each other and it is possible that they could result in a run away green house effect like the one that took place on Venus aeons ago. This would have disastrous effects and could spell the end of human life on the planet. Another danger, less severe but still dire, that we face is the depletion of petroleum, a value source of both fuel and chemicals for manufacturing. And of course there is the ongoing problem of air and water pollution, acid rain and the like.

Keyworks: Government policy development could make good use of design thinking especially when it comes to dealing with energy use issues. Humanity faces a life and death ecological challenge vis-à-vis global warming and climate change.

Introduction

If we look at government policies they encourage the consumption of oil in that they allow the price of this fuel used for transportation to be well below the actual cost of replacing it. The current price of oil reflects the cost of extracting it today plus a profit margin for those that extract and distribute it plus a certain amount of taxes levied by various levels of government. These marginal taxes still keep the price of oil well below the cost of replacing it in the future and as a result discourage the development of alternatives. As the infrastructure for the use of oil for transportation already exists the barrier for entry of renewable alternatives is still too high to stimulate their development. The revenue generated by taxing fuel so that it reflects the cost of replacing it rather than extracting it should go to supporting those that are trying to develop alternatives, i.e. renewable energy sources and into creating the infrastructure for alternative energy use. For example creating a network of recharging stations for electric cars just as government created the infrastructure of roads for our gas guzzling automobiles and trucks. Other projects should include

building European style public transport systems, redesigning our urban thoroughfares for European style bicycle lanes, creating geothermal infrastructure so we can tap into an almost infinite supply of subterranean energy to heat and cool our homes, giving tax breaks and even subsidies for the installation of solar panels, supporting research to develop more efficient and environmentally friendly batteries for electric cars, etc. etc. This list is not exhaustive but is intended to suggest the kinds of projects that government should be supporting for the wellbeing of the citizens it governs. The bottom line is that we are eventually going to need a massive development for renewable energy and the funds for building that infrastructure can come from increasing taxes on fossil fuels.

Governments tax activities that do not place a burden on the environment such as culture. If one of the factors that leads to environmental degradation is the consumption of material things then the government should through it tax policies encourage activities that do not involve consumption of material things. So for example there should be no taxes on the purchase of bicycles or on cultural activities such as theatre, film, music and the arts in general.

I subscribe to the Toronto Symphony Orchestra series of concerts and by mistake I was sent duplicate tickets to one of the concerts. I subscribed before Ontario initiated it HST (Harmonized Sales Tax) on July 1, 2010. I was told that I had to pay the difference in the former GST (Goods and Service Tax) and the HST on the exchange. It was then that I realized that both the Canadian federal and Ontarian provincial governments were taxing the purchase of tickets for cultural events something I had never paid attention to. I was furious when the realization of this policy sank in. Government, I reasoned, should be subsidizing not taxing cultural affairs both for the cultural well being of society in general but also for the good of the environment by encouraging activities that involve less consumption of energy.

It was at this juncture that I realized that the people who create government policy, both the politicians and the civil servants that work for us the people do not really understand the implications of their decisions. These are not evil folks; they in fact, realize the implications of global warming and environmental degradation. After all these very same people created in Ontario the Green Energy Act in response to the environmental crisis facing us. So what is the problem? The problem is that the set of policies that governments pursue are not systemic and they do not follow an overall design. One set of taxation policies offsets the environmental policies of the Green Energy Act. Given this reality what is the solution?

I pondered this question just after I had exchanged my tickets and had discovered that the Governments of Canada and Ontario were taxing culture. I was on my way to OCAD (Ontario College of Art and Design) University where I teach a course entitled Think Tank designed for second year design students to acquaint them with the social implications of their profession. One of the elements that I introduce in my course is the notion of design thinking. As I was introducing this concept to my students in class and describing how outraged I was to discover the tax on culture it suddenly hit me that the application of design thinking to government policy making was a potential solution to my government's muddled thinking about taxation and the environment. Why not apply design thinking to the development of government policies?

Roger Martin (2009), Dean of the Rotman School of Management at the University of Toronto, has been very successful in introducing the notion of design thinking for business with his book, The Design of Business: Why Design Thinking is the Next Competitive Advantage. A number of companies have embraced design thinking including GE, P&G and Phillips, the latter of which created the position of Chief Design Officer. A number of academic institutions teach design thinking including the Institute of Design at Stanford University and the MDes in Strategic Foresight programme at my own institution OCAD University. For other examples and a number of pithy quotes visit a Website created by Victor Lombardi (2005): http://www.noisebetweenstations.com/personal/essays/DesignThinking-Business/

After googling "+business +design thinking" to obtain the above references I then googled "+government +design thinking" and lo and behold there were about 62,700 results. Although this was at first very encouraging, what I discovered on closer examination was that indeed a number of government agencies were using design thinking in their traditional design activities such as urban planning and building hospitals. The problem is that I had difficulty finding any examples where design thinking had been employed in the policy area. The conclusion I quickly reached was that we need to apply design thinking to government policy development vis-à-vis energy just as others referenced above are using design thinking for the strategic planning of business. Two courses of action quickly came to mind, namely, research is required to determine how design thinking can be applied to government policy development and secondly there is a need to raise awareness for the need of design thinking for government policy development.

Let me explain why design thinking for government policy development is needed. It is naïve to think that the problem of global warming can be remedied by just quadrupling the price of gasoline and then using that revenue to build green energy infrastructure.

First of all that development could never take place in only one or two countries without an international agreement. If a single nation unilaterally increased the taxes on fossil fuels that nation's economy would suffer with respect to those countries that keep their fossil fuel costs low. Getting an international agreement will not be easy as the Copenhagen meeting demonstrated. For such a transformation to take place a great deal of research has to take place – some of it scientific research, some of it economic research, some of it social research and some of it design research – design research so that we can design a set of government taxation and incentive policies, as well as design businesses and social systems that can operate in a green energy environment. We have to backcast from a sustainable future that we have the power to envision and subsequently design to today's conditions and today's infrastructure. No scientist, no economist, no politician can accurately assess how much time we have to make this transition before it is too late. We better start now!!

I am confident that we can design a sustainable future for human habitation on Earth. We have the smarts and the analytic skills to achieve such a design. What worries me is do we have the ability and the will to design a set of government policies that would create the conditions for us to transition from today's unsustainable future based on the wholesale consumption of fossil fuels to a sustainable future. What is required is a future based on a mixed energy strategy of traditional fossil fuels, renewable forms of energy, conservation and a down sizing of our material appetites. Do we really want cars when all we really want is transportation?

Let me explain why the use of design thinking for government policy is so critical to achieving this transition. Let us consider what would happen if all governments stopped taxing and began subsidizing activities that are good for the environment or at least do not harm it such as sports, culture, cycling, public transport, and generation of renewable energy to give a few examples and started taxing the use of fossil fuels so that gasoline would quadruple in price. Well if that transition was sudden and not thought out properly we would have an immediate disaster as the cost of growing and transporting food would skyrocket. Life in rural areas and the outer suburbs of cities would virtually collapse. The free market system

as it is know governed by current government policies right across the globe is not capable of managing such a transition but we have to make that transition if we are to survive. This is why we must without a prolonged delay begin designing the policies that will allow us to make this transition from the dark future that our dependence on fossil fuels is propelling us towards to a brighter and sustainable future fueled by green energy. This is not a technical challenge it is a social and moral one.

Design thinking has three stages: problem finding, problem framing and problem solving. The problem finding stage has been completed. It is universally recognized in almost all scientific, academic and political quarters that we must deal with the problem of global warming and climate change. It is even recognized in many business quarters that we have a problem with the exception of most of the fossil fuel energy sector. Now that awareness of the problem has been raised and the problem that needs to be addressed found the next step of problem framing must take place. We are very far from problem solving which cannot begin until the problem framing exercise has been completed and that will entail how to design and create a new economy that does not entail the wholesale creation of greenhouse gases and that will require a new set of public policy directives that encourages that development so that the infrastructure for the exploitation of fossil fuel is replaced with the infrastructure for the exploitation of renewable energies.

Only design thinking coupled with natural science, sociology, political science and economics can see us through this transition. So if you are a designer looking to be innovative consider the application of design thinking to public policy developments. We have enough physical gadgets what we need are some new fresh innovative public policy gadgets. And if not now when?

References

Lombardi V (2005) Noise Between Stations. Available at http://www.noisebetweenstations.com/personal/essays/DesignThinking-Business/.

Martin R (2009) The Design of Business: Why Design Thinking is the Next Competitive Advantage. Cambridge MA: Harvard Business School Press.

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