



University
of Victoria

Graduate Studies

Notice of the Final Oral Examination
for the Degree of Doctor of Philosophy

of

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**“Assessing Foresight to Advance Management of Complex Global
Problems”**

School of Public Administration

Monday, March 11, 2019

3:00 P.M.

Clearihue Building

Room B017

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Abstract

Many people do not like to think about the future and if they do over 50% of Canadians think “our way of life” (p. 7) will end within 100 years and over 80% of Canadians think that “we need to change our worldview and way of life if we are to create a better future for the world” (Randle & Eckersley, 2015, p. 9). There is a good reason for this. Humanity is in an emergency that it has never experienced to this extent. Alarms have sounded over the development of artificial intelligence, climate change, mass extinction, nuclear war and pandemics to name only a few areas which are also considered global urgent complex problems (Marien & Halal, 2011). Each of these areas alone could mean the end of humanity within the century and this risk is dramatically increasing as time goes on. Furthermore, this struggle for humanity’s survival is complicated by the turbulent or complex global environment in which institutions continue to follow path-dependent trajectories set forth in a different time and context. Thus, governments at various levels face a problem of “fit” between current structures and processes, that have not progressed sufficiently and the changing needs of the catastrophically bound global society. Health care, poverty and aging populations are some additional complex problems that seem to be increasing in severity and number and represent the symptoms of humanity’s struggle. In addition, society is becoming increasingly fragmented as imminent crises build on a lack of understanding, the sense of incapacity to act, fear, distrust, blame and a lack of hope.

However, there is hope. Incremental progress is occurring on many fronts and a massive amount of efforts and resources are being engaged all over the world. Important hallmarks of contemporary society include: complexity, globalization, increasing volumes of information and data, rapidly evolving technologies, governance challenges involving multiple global and local actors, and broad engagement of stakeholders. These hallmarks also define the dynamic context of the growing number and risk of complex societal problems. Yet, these areas can be opportunities in addition to contributing factors to humanity’s predicament. Furthermore, even though the crisis is worsening, obstacles to progress are prominent, and time is of the essence, there are emerging fields and tools that can potentially alleviate complex problems globally and address this global emergency. The purpose of this dissertation is to understand and assess dialogue-based foresight practices being applied towards these complex problems in Canada to provide insights into how these practices can assist society to alleviate global urgent complex problems and their impacts, within this backdrop of looming crises.

Foresight, alternatively known as future studies or scenario-building, is a forward-looking practice recognized and used globally. Since the 1990s, academic, and practice interest in foresight has grown significantly with now over 100 research organizations focused on foresight, widespread usage by firms and over 18 countries involved in foresight activities (Berze, 2014b). The overall findings of the literature

on measuring foresight effectiveness are that foresight is widely and at least incrementally effective with a number of impacts in a number of different areas (Calof, Miller, & Jackson, 2012; Calof & Smith, 2010; March, Therond, & Leenhardt, 2012; Masum, Ranck, & Singer, 2010; Meissner, Gokhberg, & Sokolov, 2013) but the extent of this effectiveness, the mechanisms involved, and the specific benefits of foresight per type of project or exercise needs further research and evidence. For instance, limited literature exists on whether foresight can transform complex situations and if so, under what conditions. Also, several scholars and practitioners believe the potential exists for increasing the impact of foresight through improved measurement and research (Giaoutzi & Sapio, 2013; R. Johnston, 2012; nik, 2014; Riedy, 2009; Rohrbeck & Bade, 2012; M. van der Steen & van Twist, 2012; Varum & Melo, 2010; Veliquette et al., 2012; Wilkinson, Kupers, & Mangalagiu, 2013).

This dissertation is a unique comprehensive and systematic empirical study that taps into trans-disciplinary literature and practice, case studies of how foresight has been used to address specific types of complex problems in Canada, as well as surveys and interviews with experts and participants in foresight processes. Building on a conceptual framework this dissertation includes a foresight community scan and uses a comparative case study approach to provide practical and theoretical benefits to both foresight and complex problem area stakeholders. The focus of the framework is on identifying the impacts of dialogue-based foresight projects on people and the outcomes of the complex problem.

The thesis argues that the unique contributions of foresight, especially dialogue-based foresight, can be very valuable in addressing global urgent complex problems. Thus, it asks how foresight practices are used to address complex problems and how dialogue-based foresight can assist society to alleviate complex problems and their effects in the Canadian context. Based on the results from this research, dialogue-based foresight is a valuable and unique practice for ameliorating complex problems and their consequences. Insights are offered towards dialogue-based foresight's potential contributions within the context of other efforts directed at humanity's struggle for survival and global complex problems. The resulting insights can then foster the further development and application of dialogue-based foresight on a global scale to alleviate complex problems and their effects. Further, recommendations on key next steps to realize these potential contributions are offered.

This dissertation is relatively unique in its comparative case study approach, its comprehensiveness, and in striving to better understand foresight as it addresses complex societal problems in Canada. Further, through a contextualized multi-perspective analysis the value of dialogue-based foresight, a specific type of foresight largely taken for granted as a part of foresight but rarely delineated and studied as a type of foresight, is examined in different ways in aggregate; also a distinct feature of this research.