

# School Stakeholders' Experience with Navigating ICT Policy Reforms in Singapore

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## ABSTRACT

*Using qualitative research inquiry methods, this inquiry attempts to explore how school stakeholders cope with incessant and seemingly endless transformations in schools. The central phenomenon to be studied focuses on how school stakeholders “make sense” of educational reform. In order to do this, an exploratory case study of two target schools taking part in policy reform initiatives directed at ubiquitous use of Information Communication and Technology (ICT) in a Singapore context would be the locus of this inquiry. Using Focus Group Discussions (FGDs), interviews, and observations this inquiry investigates and builds emerging explanations to sense-making experiences of stakeholders. Policy learning narratives of actors involved in the ICT-education reforms would be analysed using the lens of Actor-Network Theory (ANT). Findings from this exploratory inquiry provide insights to ongoing debates on policy learning experiences of school stakeholders in periods of uncertainty.*

**Keywords:** *Information Communication and Technology (ICT), Policy, Reform, Sense-Making, Singapore, Teachers*

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## INTRODUCTION

This qualitative research inquiry explores how school stakeholders situated within the island city-state of Singapore cope with incessant and seemingly endless transformations occurring in schools. This article asks one general question: How do Singapore school stakeholders make sense of the introduction of pervasive Information Communication Technology (ICT) usage in schools? The central phenomenon to be studied focuses on how school stakeholders “make sense” of educational reform. Using findings from Focus Group Discussions (FGDs), interviews and observations, this inquiry investigates and builds emerging explanations as to how school stakeholders’ “navigate through and make sense” (Reyes, 2010, p. 397) of the introduction of

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ICT reforms. Results of this exploratory inquiry provide an impetus for emerging debates on leadership and policy learning in ICT-enriched contexts.

This exploratory inquiry is divided into four sections. Aside from providing the theoretical lens, the first part includes a description of the Singapore context emphasising how ICT has become a pervasive policy initiative. The second elaborates on the methodological approach. An explanation of the scope and limitations is also included in this section. The third explores sense-making by focusing on how school stakeholders perceive changes and continuities in their experiences. The final section provides a critical reflection on school stakeholders experiences whilst implementing ICT-intensive reforms.

## LITERATURE REVIEW: STAKEHOLDERS SENSE-MAKING IN SINGAPORE SCHOOLS

### School Stakeholders' Sense-Making Experiences

This article assumes that schools, as loosely-coupled systems, (Weick 1976) experience great complexity during reforms. Within a context that is driven by hyper-reforms, the introduction of ICT forces teachers to undergo fundamental disjunctures (Appadurai 1990), where skills and knowledge that they have acquired clash with new technologies. This inquiry recognizes that in a context where ICT becomes a fundamental piece of the reform agenda, it becomes an important non-human actor in the way that social relationships in schools emerge. This article contributes to ongoing debates surrounding the role that developed nations -- like Singapore -- play in deliberately connecting education systems with ICT (Selwyn and Brown 2000) focusing on emerging issues confronting education stakeholders. The interactions of human and non-human actors become networks where disjunctures occur and where various actors engaged in the reform undergo sense-making experiences. Sense-making, which is an identity creation as well as a contested, reflected and shared activity among various members of the school system, would be explored under the analytical lens of Actor Network Theory (ANT). Using specific aspects of ANT captures the sense-making experiences of school stakeholders by mapping their narratives as they were “weaving through things they have added to social skills” in order to “render more durable the constantly shifting interactions” that these actors experience in the midst of reform (Latour 2005, p. 68). A specific aspect of ANT posits that causal relationships may not be the most appropriate manner of making inferences in interrogating social relationships. In other words, this inquiry about school change will not pretend to establish how ICT policy *causes* school leaders to behave in a particular manner which then *causes* the school to change in a specific way. Instead, viewing actors as *mediators* who “transform, translate, distort and modify the meaning or the elements they are supposed to carry” which in this particular case would be ICT reform policies, as opposed to *intermediaries* who transports “without transformation” (Latour 2005, p. 39) would be more meaningful. This article explores the *Actor-Networks* or what Latour describes as the various “traces of interactions” that have occurred consisting of “human-to-human connections” or “object-object connections” and links that have been established as a “zigzag from one to the other” in the midst of carrying out ICT reforms (Latour 2005, p.75).

### Singapore Context

Singapore is a South East Asian country located at the southern tip of Malaysia. The total land area is about 716 square kilometers, and the current population is about 5.3 million comprising of predominantly Chinese, Malays and Indians, as well as other races (Singapore Statistics, 2013).

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