Ecology of Games as a Framework for Analysing E–Government Project Implementation

Shefali Virkar
University of Oxford, UK

INTRODUCTION

Over the course of the last two decades, globalisation and Information and Communication Technologies (ICTs) have been rapidly dismantling traditional barriers to trade, travel, and communication; fuelling great promise for progress towards greater global equity and prosperity. However, in trying to analyse both the potential and real value of ICTs in the socio-political sphere, there has been a tendency for scholars to see e-government applications as isolated technical artefacts, analysed solely as a collection of hardware and software. Far less work is based on empirical field research, where models put forward by scholars and practitioners often neglect the actual attitudes, choices and behaviour of the wide array of actors involved in the implementation and use of new technology in real organisations and the way in which application shape and are shaped by existing social, organisational, and environmental contexts (Virkar, 2011).

In deciding to evaluate the outcome and impact of an e-government project, it falls to the researcher to first choose between adopting quantitative and qualitative methods of analysis. e-Government projects may be characterised as hybrid systems, containing a mix of 'hard' technical elements and 'soft' social elements (Gupta, Bhattacharya, & Agarwal, 2007). A range of methodologies and frameworks to study the impact and effectiveness of e-government projects exist in the literature, which may be classified in terms of the degree of 'hardness' or 'softness' depending on the clarity and nature of the influential variables of the problem.

However, with most studies of e-government tending to focus on the measurement and performance of hard elements such as financial and other easily quantifiable data, it is often forgotten that large parts of these projects are soft systems and that technical systems have to keep up with continuous changes in workplace culture and developments in the various interactions between government actors, citizens, and businesses. The significance of qualitative benefits derived from a system is often ignored when an evaluation is made from a purely economic point of view. To fill this lacuna, this article will explore the usefulness of Long's *Ecology of Games* as an analytical framework to assess the influences of actor interactions on project outcome.

BACKGROUND: UNDERSTANDING ACTOR BEHAVIOUR

The central issue that needs to be understood whilst studying project outcome through an analysis of actor interactions is thus: *Why do people do what they do?* (Virkar, 2011) One approach to understanding behaviour is to look at the rationality of individual actors, rather than the system as a whole. This is largely because political actors are driven by a combination of organisational and institutional roles and duties and calculated self-interest, with political interaction being organised around the construction and interpretation of meaning as well as the making of choices. It can therefore be extremely difficult to transplant new technologies and ways of working into organisations (March & Olsen, 1989).

Psychologists contend that human motivation must be understood as the product of the interaction between events and things in the social world and interpretations of those things in people's psyches (Strauss, 1992). One approach to the study of motivation begins by defining motives, not with reference to internal stimuli but with reference to external *goals*, stemming from a number of

different needs (D'Andrade, 1992). Political actors, in general, have a complex set of goals including power, income, prestige, security, convenience, loyalty (to an idea, an institution, or the nation), pride in work well done, and a desire to serve the public interest (as the individual actor conceives it). Actors range from being purely self-interested 'climbers' or 'conservers' motivated entirely by goals which benefit themselves and their *status quo* rather than their organizations or the society at large, to having mixed motives as 'zealots', 'advocates', and 'statesmen' motivated by goals which combine self interest and altruistic loyalty with larger values (Downs, 1964).

Traditionally, institutional change in political institutions has been the result of the intentional or voluntary insertion of innovation into a current system through a sufficiently assumed transformation of its rules and internal games (Prats, 2000); motivated both by the transformation of actor perceptions regarding those changes as well as the behaviour alterations which those perceptions give rise to; that is, by the construction of new mental models that result from the acquisition of learning and skills which help interpret the new context. Institutional change generally occurs whenever an alteration in circumstances is perceived by one or more group of actors to be a win-win situation for that group or for all participants involved. Such change thus depends chiefly on the actors' perceptions with respect to the gains (or payoffs) to be obtained (Gascó, 2003).

ASSESSING PROJECT OUTCOME: THE ECOLOGY OF GAMES FRAMEWORK

From the turn of the century to the present, there has been a progressive movement away from the view that governance is the outcome of a rational calculation to achieve specific goals by a unitary governmental actor (Firestone, 1989), and in that context metaphors based on games have been extremely useful in developing new ways to think about the policy process. The use of the concept of games is found most recently in the work of Michel Crozier and Erhard Friedberg (1980), who conceptualized the behaviour of individuals as organized around interactions, and organizations as collections of *games*, forms of social constructions that vary over time and across social contexts (Crozier

& Friedberg, 1980). Work done by Dutton (1992) has identified several key attributes that all games may share: a set of goals, purposes, and objectives, a set of prizes which vary widely from profit to authority to recognition, rules that govern the strategies or moves open to players depending on the organisational or institutional settings within which they are played, and a set of players defined by the fact that they interact with one another in pursuing the game's objectives. Based on the idea of games being relevant political interactions, game metaphors have been used to explain certain features of political behaviour. A number of political games have been identified by scholars such as Mintzberg (1985), all based within differing contexts ranging from electoral politics to administrative functioning; and metaphors to explain their consequences have been developed with varying degrees of success.

In order to further the analysis of how games and actor interaction affect the impact of ICTs on administrative reform, this article proposes a more intuitive four-fold taxonomy (Virkar, 2011). Games may be classified and analysed depending on the level of actor interactions or on the basis of the field of play, the key actors involved, the main objective(s) of the game under study, and the nature and/or spirit in which the game has been played. The four categories, which are derived from this author's research within differing contexts ranging from electoral politics to administrative functioning, are elaborated below:

1. **Arena or Field of Play:** Actor interactions may be classified according to the arena within which they are played out. In other words, this classification – which has its roots in initial work done by Vedel (1989) and Dutton (1992) – focuses on the reach and influence of actors within a given context, and the impact of their actions (both direct and indirect) on project outcomes.

   a. **Project-Specific Games:** Are generally played by individuals and groups of actors directly involved with a given case under study. Such interactions usually occur during the planning and execution of a project and tend to have a direct impact on its outcome.

   b. **Organisation-Specific Games:** Are played out within the department or organisation where the project is based, involving not only actors directly concerned with

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