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Serious Gaming for developing Open Government Data Policies by Local Governments

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ABSTRACT[1]

Developing open government by local government is cumbersome. Many local governments have no policies or are struggling to develop policies enabling to create value from open data. Policy-making is challenging due to the wicked nature of many policy problems, unclear objectives, and the involvement of diverse stakeholders. At the same time governments are opening their policy-making processes for participation by citizens and private companies. The goal of this paper is to present the structure of a game to increase the understanding of open-data policies by local governments. Open Data Policies are aimed at making public data available to be accessed and used by civil society. The game participants can experience the implications of various policies. This should help them to developed better policies.

CCS CONCEPTS

• **Social and professional topics** → **Computing / technology policy** → **Government technology policy**; *Governmental regulations*; → **Surveillance**; *Governmental surveillance*; Corporate surveillance

KEYWORDS

Decision-Making; Policy Gaming; Open Data Policy

1 INTRODUCTION

Open Data Policy (ODP) should stimulate the opening of open data and enable the creation of value of open data [1]. Making public data available for the society is important to empower the public. Yet, policy-makers are reluctant to decide to open their data, as they have limited insight into the effects of their decisions. Serious gaming can help to understand the effects of decision within a simulated environment. Performing interactive activities in simulated contexts can help to improve decision-making [2]. "Gaming is not a predictive device or a panacea to be plugged into the problem of the moment. It can be useful for gaining perspective on complex issues; it is particularly useful for guiding speculation about future circumstances"(p.204) [3].

Although games are more and more used, the use of gaming techniques on public policies needs to be better known through scientific methods [3, 4]. Gaming techniques is used as synonym to game-design or gaming policy in the sense that it defines mechanisms and dynamics that are common through the game-development industry and apply it to non-entertainment context [3]. Also known as Serious Games [5] or Interactive Simulation exercise [6] [7], there are many different purposes to which they can be applied. Specifically, there is a growing field on Policy Gaming [2]. In this poster a global structure of a game to increase the understanding of open-data policies by local governments is presented.

2 OPEN DATA POLICY GAME

Open Data Policies and Serious Gaming can be connected to engage local governments in turning public the information they produce. Each local government has different scales of priorities that can be addressed in such approach. Hence, the game needs to be customized and local policy-makers should be able to decide about the open data content included in the game. The game will be used to experience with the opening of data.

2.1 The ODP Game

2.1.1 Set-Up the game and define roles. Various types of stakeholders will be invited to interact in a game. A set of constraints and assets will be offered to adjust the game for different local realities, "making sure that strategies are doable in the eyes of the doers" (p.27)[3]. Through the game it will be possible to put each stakeholder to play their own role or to

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change roles with other agents, including data policy public servant, politician, citizen, entrepreneur, street-level bureaucrat.
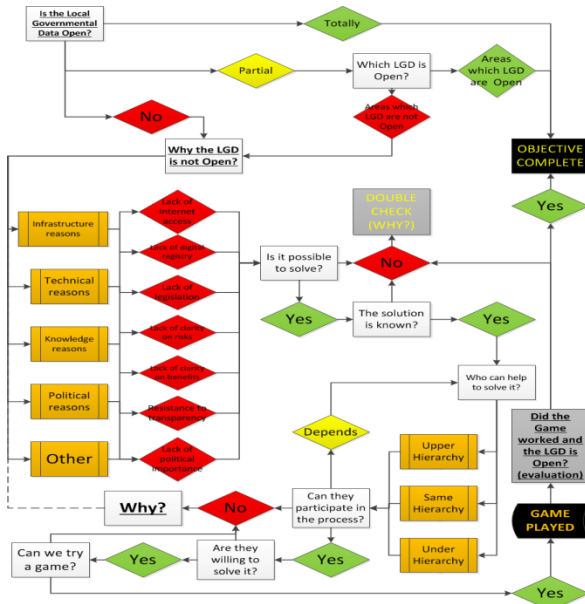

Figure 1: Game Draft Scheme

2.1.2   Overview of Activities in Time. Figure 1 gives an overview of the activities in the game. A group of questions needs to be answered to define the scope and target of the game. After the development of this first set-up, the main steps are the following:

1. Define the prototype of the game and role play it with different stakeholders to refine the concept and evaluate the feasibility of the experiment.
2. Define partners to test the game in real situations and register the settings, procedures and outcomes for future studies.
3. Compare results of the experiments with others from literature and define new scopes for the game design on public policies, specifically for ODP.
4. Register the conclusions of the process and disseminate.

2.2.   Evaluation

A set of parameters will be developed in order to identify the changes due to the game. "Formal, rigorous evaluation and comparison with alternative approaches in a variety of contexts become crucial to enable claims of generalizability"(…) "[It is a]'proof by construction' (…)since it is the first such artifact, its evaluation using formal methods is deferred until future research" (p. 97) [8]. The effect on changes in policy-making will be measured.

What are the characteristics and how intensive are the behavioral changes is to be addressed by measuring the outcomes of the situation after the policy exercise. Figure 2 expresses the general processes to be tested through the game play.
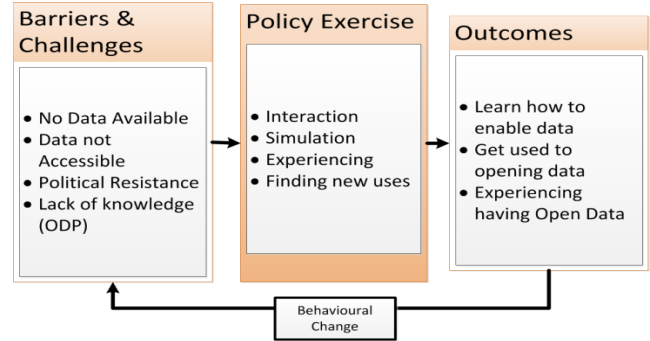

Figure 2: Gaming process

3   DISCUSSION AND FURTHER RESEARCH

The present research intends to develop and test a game to improve Open Data Policy. The game enables stakeholders to interact with each other in order to understand the implications of opening data. A prototype will be tested with different stakeholders and with different municipalities. It is expected to have a final version of the game to be played in different contexts to compare and evaluate the limits and possibilities of generalizing the game outcomes using the same approach. A specific public policy field will be delimited for the research purposes and it is also intended to extend the game play for other fields that can benefit of providing and using open data to improve its policies.

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