Can Gamification Concepts Work With E-Government?

Emad Ahmed Abu-Shanab, Qatar University, Doha, Qatar
Malak Rasheed Al-Sayed, Yarmouk University, Irbid, Jordan

ABSTRACT
This article predicts the adoption of e-government websites and services by focusing on gamification and enjoyment factors. The sample uses ranked use of points and coupons as the most suitable schemes, while excluding the use of quests and puzzles. In predicting the intention to use e-government, five constructs were used: perceived usefulness, perceived ease of use, enjoyment and innovation, positive influence on government image and negative influence of government images. Results indicated a significant role for enjoyment and innovation based on the gamification context. The influence on government image (positive and negative) were not significant in predicting the intention to use e-government. The coefficient of determination of the regression model was 0.655, which explains 65.5% of the variance in ITU.

KEYWORDS
Adoption, E-Government, Enjoyment, Gamification, Government Image, TAM

INTRODUCTION
This decade witnessed many changes in how people interact, communicate, share and exchange ideas and experiences with friends, family members, and even acquaintances. The use of social network platforms transformed the way we interact. They contributed to forming special purpose communities and improved service delivery by public and commercial institutions (Bista et al., 2014; Mika, 2007; Shehadi et al., 2013).

With the wide spread of online communities, a number of problems are reported such as bootstrapping the community and attracting enough members to get the community running. Another problem is monitoring the community to get necessary feedback. The final problem is retaining community members and keeping them engaged for the longest time. Keeping the interaction and contribution of community members is a critical challenge for researchers and professionals, where they introduce a number of techniques that can increase user’s participation and engagement (Nepal et al., 2015; Bista et al., 2014).

Gamification of websites is a new trend that attracts users. Governments are not excluded from such need. Governments strive for attracting more citizens to use e-services, retain them and improve the interaction opportunities. To do so, governments need to apply diverse techniques and use multi-
channels to reach out for citizens. The formal image and equity perceptions by citizens toward their government is a challenge that needs to be resolved. Not all gamification techniques can fit with such image and with all type of services offered by governments. In addition, research is not in support of the applicability and success of such ventures in the context of formal websites.

This study will focus on the influence of gamifying e-government websites (or on strategies for gamifying public websites) by answering two major questions: I) First, how Jordanian citizens perceive the suitability of five major gamification concepts within an e-government context? II) Second, what are the major factors that encourage citizens to adopt gamification concepts in an e-government context? Research supported the role of fun and enjoyment in attracting users to continue using a website and extend such use to more practices. Gamification of e-government is an important aspect where governments need to engage citizens and improve their participation levels.

1. BACKGROUND

Electronic government (or e-government) is the utilization of technologies, especially Information and Communication Technologies (ICTs), to better interact with citizens and to improve the provision of services offered by government agencies. E-government pledged citizens with an increase in government’s efficiency, transparency and legitimacy (Gordon, 2002; Abu-Shanab, 2013; Nepal et al., 2015).

By providing easy access and service delivery, engaging with e-government can influence several sides such as productivity, performance, support for services, skill development, behavior change, feedback and useful abstraction of raw data (Alloghani et al., 2017; Abu-Shanab, 2017; Bista et al., 2014). The successful collaboration between citizens and the governments, in the form of partnership, leads to co-operation or we-government concepts (Deterding et al., 2011; Bista et al., 2012). Such transformation incentivizes citizens to be active and contribute as an equal partner in public service delivery.

The development of the social web has influenced the way e-government works, how it implements its services and policies, and what are the social considerations related to each step it takes. The social web expanded the reach of e-government in delivering rich public services through a multi-channel strategy. Rich technologies attract citizens to be active participant in service delivery choices and policy formulation (Gordon, 2002; Nepal et al., 2015; Khasawneh & Abu-Shanab, 2013). Governments can use social media to reach for citizens by answering any question through an informal channel that is closer to citizens (Saulles, 2011).

To attract citizens to visit a website, use a service, or participate in social media, gamification is one of the solutions. It is related to designing games for a non-game context. While several ways can be used to solve the problem of increasing citizens’ participation, gamification is a new promising method that adds a friendly image to formal public website and looks as a solution for increasing user’s engagement (Deterding et al., 2011).

2. GAMIFICATION

Researchers define gamification as the utilization of gaming techniques or game design in a non-gaming application or context like business or industry settings. This technique introduces some improvement and enhancement on the collaboration process, where it induces a desirable behavior among people. It can reduce the attrition in online communities. Research reported positive and negative influences for this new methodology, where it requires special conditions to succeed and attain its goals (Bunchball, 2010; Deterding et al., 2011).

Despite the growing use of gaming techniques to achieve the engagement and motivation with customers, the future prediction of such methods that it will grow only for the aim of changing individual behavior. The gaming and its techniques and principles are not an easy challenge. While
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