

Chapter 3

Technologies for Connected Government Implementation: Success Factors and Best Practices

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ABSTRACT

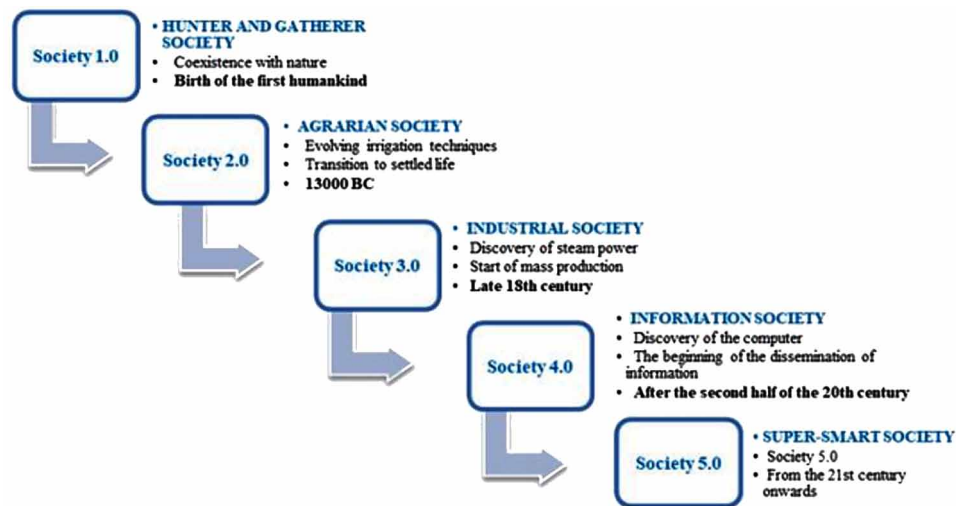
This chapter aims to identify critical success factors and examines the best use of Web 2.0 technologies to improve the effectiveness and transparency of electronic government (e-government) provision. To this end, the chapter presents the use of e-Portals for connected government (c-government), e-government, and mobile government. Since the connected government practices rely not only on the technologies used but also on the culture, regime, and structure of the population, a number of other relevant factors are also discussed to further determine the impact of latest technologies on c-government practices. This study has resulted in the identification of six basic critical success factors affecting the success of c-government. At the same time, it is suggested that Web 2.0 technologies may be used to make e-government applications more human-centred, transparent, social, dynamic, and applicable. New concepts such as Industry 4.0 and Society 5.0 are also examined.

INTRODUCTION

Humankind has always been in search of a change and its quest has helped it reach at the today's super-smart society. The Ionian philosopher Heraclitus, who lived in Ephesus from 540 to 480 BC, summed up this need of change of humankind by suggesting that “change is the only constant in life”, and asserting that “change is at the centre of the universe” (Reardon, 2017). Heraclitus, considered as the founding father of the idea of the process, highlighted the importance of the process of change and transformation with the words “everything flows, nothing remains” (Nayak, 2014). In the modern world, however, change is associated with the diversity of scientific knowledge and the resulting increase in specialization (Gjertsen, 1989) and “the desire for change increases as the level of knowledge of humanity increases”.

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Figure 1. Process of transforming from the agrarian society to the super-smart society of today



It is generally accepted that our social needs have changed and are continuously changing to this day, but this has occurred over time in five stages. The Japanese Economic Organization (Keidanren) categorized these stages as shown in Figure 1 (Keidanren, 2018; Gerger, 2019b).

The evolvement of each new stage occurred in a shorter time frame than its predecessor. The reasons for this include the accumulation of knowledge of humanity and the level of civilization that it has reached. Today, the progress achieved especially in the areas of artificial intelligence (AI), the Internet of Things (IoT), big data, deep learning, cloud computing, machine learning (ML) and so forth, has facilitated the dissemination of information and economic development, accelerating this process even further. As a consequence, change has profoundly affected not only people, but also all our cities, our social values, and our ways of living and working (Gerger, 2019b; Lin, Shyu, & Ding, 2017).

Advances in science and technology have led to the rapid proliferation and dissemination of knowledge, causing serious changes in society and industry. This digital transformation has been establishing the basis for a new industrial and service policy in several countries by creating new values in society, industry, and government functioning. As a consequence of such global tendencies, the concept of “Society 5.0” was suggested and later recognised by the Japan Council of Ministers on January 5, 2016 via the “5th Science and Technology Basic Plan” (Fukuyama, 2018). Informing the general public about the need for change and ensuring that society adapts to newer technologies are important goals for Society 5.0 (Gerger & Firuzan, 2010). In fact, the concept of Society 5.0 has emerged in response to human needs and as consequence of evolving technological space. The aim is to ensure that society perceives technology as an enabler to making life easier rather than see technology as threat to the way people operate (Gökten, 2018). Society 5.0 is based on Industry 4.0 (Harayama, 2017), which emerged in Germany in 2011 when digital technologies became to be used into production and manufacturing processes.

Technology used in the real and virtual worlds generally focuses on technological and economic dimensions by creating a collaborative network to establish an integration between the virtual space and human beings (Ferreira & Serpa, 2018). In the era of Industry 4.0, more connections were being established throughout the world, and the needs of societies, customers and governments were becoming more demanding and dynamic (Ang, Goh, Saldivar, & Li, 2017). For this reason, Society 5.0 has

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