Chapter 9
Towards User Centric E-Government

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Abstract Governmental organizations play an important role in any society to offer services to their citizens. Digital media has transformed the conventional government administration into e-government. However, the successful adoption to e-government systems by citizens is still a bigger challenge. User centered design approach focuses on involving citizens in the design of e-government systems. In this chapter, we re-emphasize the need for user centric e-government to motivate e-government researchers to use this approach in the design of e-government systems for better user acceptance.

Keywords E-Government • User centred design • User centric e-government

1 Introduction

Technology has transformed operations of modern day work environments more efficient and effective. E-government is broadly defined as use of technology in delivering governmental services by any governmental organization [cf. 1–3]. The success of e-government systems is dependent on appropriate technological systems provided by governments and citizens' acceptance of these systems. The governments operations are not uniform globally and same is the case with the skills of citizens, which makes designing e-government systems very specific in each organizational setting. It has been observed that many e-government projects fail since they are not appropriated according to the needs and skills of end users. To enhance the acceptance of e-government systems, users' work practices need to be analyzed deeply and e-government systems need to take these work practices into consideration during system design. Recent emergence of social media has also opened new avenues for e-government [cf. 4–8]. Social media not only brings

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in more transparency in societies but also provides citizens an opportunity to participate effectively in policy making [cf. 9–13]. In this chapter, we discuss user centred e-government approach and emphasize e-government researchers to use this in their system design approaches.

2 User Centric E-Government

User centered design is a specialized design approach where end users play an active role in the design process of software artifacts [cf. 14, 15]. The shell of user centric system design approach is involving the end users in the system design to take human factors into account to increase the technology acceptance [cf. 2, 16]. The user centered design has different emerging themes such as participatory design, usability engineering and interaction design. E-government systems need to adopt user centric methodologies in the development process to involve end users [cf. 17, 18]. E-government adoption is not uniform among all the governments and the implications of designing e-government systems become more evident especially in the developing countries where the impact of digital divide is more evident. Khan et al. identified the challenges for developing countries in fostering user centric e-government infrastructures and conclude that technical skills are not the core skills required by end users to effectively use e-government systems [19].

Along with the involvement of users in design process, usability evaluation is also an important concept in human computer interaction domain. Usability can be defined as the degree of easiness in effective interaction among users and computer systems [cf. 20–23]. Wang et al. believe that core determinant of success of e-government system is based on easy information access by end users and they present a model to evaluate the e-government websites to understand the reasons of success or failure of users in locating desired information [24]. Usable e-government systems enable users to carry out their tasks efficiently. Donker-Kuijer et al. has presented heuristics for e-government web applications, which will enable developers to quickly evaluate the usability of their e-government systems [25]. There have been similar research projects to evaluate usability of e-government systems in different geographical regions e.g. in United Kingdom [cf. 26–29], Spain [cf. 30], Romania [cf. 31], Hungary [cf. 32], Korea [cf. 33], Saudi Arabia [cf. 1, 34, 35], Pakistan [cf. 36–38] and so forth. These research projects advocate for more rigorous usability studies of e-government systems to better design such systems in future.

Another challenge faced by e-government systems is to include every citizen rather than excluding who have hindrances in using technological systems to formulate an inclusive society [cf. 20, 39, 40]. The concept of universal access in usability engineering advocates for designing usable systems providing equal accessibility irrespective of age, gender, skills, and physical abilities of end users. Huang presented different recommendations to make e-government websites accessible for disable users based on his empirical research on Taiwan's center government

website [41]. Jaeger has investigated the federal e-government websites in US to identify the accessibility of disable citizens and provide recommendation for better accessibility [42].

3 Conclusion

Despite these contributions, there is a need to enrich the body of knowledge to document best practices and more case studies on involving users in design of e-government systems. With the emergence of web 3.0 applications the need to tailor e-government systems as per user needs has become more evident [cf. 43, 44]. Despite the e-government adoption by different governments, there is a need for more rigorous measures to enhance the performance of e-government infrastructures [45–47]. Tcheir et al. believe that despite the adoption of e-government systems the service quality for citizens has not improved [48]. It is very important to measure the effectiveness of e-government systems for continuous improvement of service delivery to citizens. Alanezi et al., propose that quality of e-government can be measured by seven key factors which are website design, reliability, responsiveness, security/privacy, personalization, information, and ease of use [49]. The involvement of users in design process can improve the performance of e-government delivery due to better alignment of e-government systems and work practices of citizens.

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