

A Prescriptive Framework for the Formulation of E-GOV Strategies Taking into Account International Rankings

Wagner Araujo*, Delfina Soares**, João Carvalho***, Joana Carvalho****

*Algoritmi Centre, University of Minho, Portugal / United Nations University (UNU-EGOV), Portugal,
wagner.s.araujo@unu.edu

**United Nations University (UNU-EGOV), Portugal, soares@unu.edu

***Algoritmi Centre, University of Minho, Portugal jac@dsi.uminho.edu

****Algoritmi Centre, University of Minho, Portugal / United Nations University (UNU-EGOV), Portugal,
joana.carvalho@unu.edu

Abstract The use of international rankings in the formulation of national E-GOV strategies is a reality in many countries. Considering that these indexes have limitations as recognized by the literature and by the Institutions that produce them, some systematization is necessary. To support the formulation of E-GOV strategies taking into account international rankings, a prescriptive framework is under construction using the Design Science Research (DSR) approach. The objectives of the solution have been set in a previous exploratory study, which concluded that the framework should be flexible, instructive, easy to use, comprehensive, co-participative, and effective. So far, previous versions of the framework have been used by two countries to formulate their E-GOV strategies. This workshop aims to evaluate its current version and to collect inputs to improve it through a new DSR process iteration.

Keywords: E-Governance; E-Government; E-GOV Strategy Formulation; E-GOV Strategy Formulation Framework

Acknowledgement: This work has been supported by FCT - Fundação para a Ciência e Tecnologia within the R&D Units Project Scope: UIDB/00319/2020.

1. Introduction

According to the 2020 E-Government Survey published by the United Nations, 151 of the 193 United Nations Member States presently have a digital strategy (Department of Economic and Social Affairs, 2020). The complexity of e-government in promoting accountable, effective, inclusive, transparent, and trustworthy public services that deliver people-centric outcomes is growing (UNITED NATIONS, 2018) and a strategic approach seems to be necessary (Heeks, 2006).

To monitor the achievement of strategic plans, assessing programs, benchmarking is a valuable alternative (Ostasius & Laukaitis, 2015). The role of producing these benchmarking reports, surveys, and rankings is usually performed by international institutions such as the United Nations and The World Bank, which regularly undertake significant studies to rank countries on a wide range of features, including information technology (Rorissa, Demissie, & Pardo, 2011). Moreover, the relevance of these rankings as an important tool for national e-governance strategy formulation, policy definition, and program prioritization has already been recognized (Soares, Araujo, & Carvalho, 2018). However, existing frameworks that support the process of formulation E-GOV strategies do not take into account international rankings, at least in a systematic way. The prescriptive framework under construction, or a method (Hevner, March, Park, & Ram, 2004) that gives explicit prescriptions (Gregor, 2006), tries to fit this gap and follows a Design Research Approach (DSR) (Peffers, Tuunanen, Rothenberger, & Chatterjee, 2007).

2. Objectives of the Workshop

This workshop aims to evaluate the actual version of the framework, collecting inputs to a new DSR process iteration. A previous exploratory study already unveiled the objectives of the solution, in a way that it should be flexible, instructive, easy to use, comprehensive, co-participative, and effective. A description of these objectives is depicted in Table 1.

Table 1: Framework Objectives

Objectives	Description
Flexibility	Adjustable to the country context
Instructiveness	Supports the learning process and the association of rankings characteristics to E-GOV purposes.
Ease of use	Simplifies the use of international rankings in E-GOV strategy formulation.
Comprehensiveness	Broadly covers the E-GOV purposes
Co-creativity	Enables the participation of multiple stakeholders.
Effectiveness	Delivers an E-GOV strategy after a complete formulation process.

During the workshop, this set of objectives will be evaluated to check if the solution fits them. Eventually, new objectives can be identified. The workshop will be developed using the focus group technique (Hennink & Leavy, 2015).

3. Workshop Structure

The online workshop will last for 120 minutes. During the introduction, the research, and the framework for the formulation of E-GOV strategies taking into account international rankings will be presented (20 mins).

The remaining time will be dedicated to a focus group discussion (90 mins), with a short break (10 mins) between two sections. The discussion will be guided by one moderator, at least. The first section will be dedicated to evaluating the first three objectives: flexibility, instructiveness, and ease of use (15 mins each). After the short break, the remaining objectives will be evaluated: comprehensiveness, co-creativity, and effectiveness (15 mins each).

Depending on the number of participants, parallel groups can be formed, to allow more in-depth discussion. The goal is not to reach a consensus but to uncover a range of perspectives and experiences. Questions to stimulate discussion will be used by the moderators to provide a comfortable environment to share ideas. The workshop will be recorded if the conference rules permit, and participants allow it.

References

- Department of Economic and Social Affairs. (2020). E-Government Survey 2020 - Digital Government in the Decade of Action for Sustainable Development: With addendum on COVID-19 Response. UN E-Government Knowledgebase. Retrieved from <https://publicadministration.un.org/egovkb/en-us/Reports/UN-E-Government-Survey-2020>
- Gregor, S. (2006). The nature of theory in Information Systems. *MIS Quarterly: Management Information Systems*, 30(3), 611–642. <https://doi.org/10.2307/25148742>
- Heeks, R. (2006). Implementing and Managing eGovernment (Vol. 23). London: SAGE Publications Ltd. <https://doi.org/10.1002/j.1681-4835.2006.tb00154.x>
- Hennink, M. M., & Leavy, P. (2015). Understanding Focus Group Discussions. *Understanding Focus Group Discussions*. <https://doi.org/10.1093/acprof:osobl/9780199856169.001.0001>
- Hevner, A. R., March, S. T., Park, J., & Ram, S. (2004). Design science in information systems research. *MIS Quarterly: Management Information Systems*, 28(1), 75–105. <https://doi.org/10.2307/25148625>
- Ostasius, E., & Laukaitis, A. (2015). Reference model for e-government monitoring, evaluation and benchmarking. *Engineering Economics*, 26(3), 255–263. <https://doi.org/10.5755/j01.ee.26.3.8128>
- Peffers, K., Tuunanen, T., Rothenberger, M. A., & Chatterjee, S. (2007). A design science research methodology for information systems research. *Journal of Management Information Systems*, 24(3), 45–77. <https://doi.org/10.2753/MIS0742-1222240302>
- Rorissa, A., Demissie, D., & Pardo, T. (2011). Benchmarking e-Government: A comparison of frameworks for computing e-Government index and ranking. *Government Information Quarterly*, 28(3), 354–362. <https://doi.org/10.1016/j.giq.2010.09.006>
- Soares, D., Araujo, W., & Carvalho, J. (2018). Electronic governance policy measurement, assessment and monitoring: a discussion. *ICT Electronic Government 2017: Survey on the Use of Information and Communication Technologies in the Brazilian Public Sector*, 173–182. Retrieved from https://www.cetic.br/media/docs/publicacoes/2/TIC_eGOV_2017_livro_eletronico.pdf
- UNITED NATIONS. (2018). E-Government Survey 2018: Gearing E-Government to support transformation towards sustainable and resilient societies. New York. <https://doi.org/e-ISBN: 978-92-1-055353-7>

About the Authors

Wagner Silva de Araujo

Wagner Silva de Araujo is a Research Assistant at the United Nations University Operating Unit on Policy-Driven Electronic Governance (UNU-EGOV) and a PhD Candidate at the Department of Information Systems, School of Engineering, University of Minho. He is also a researcher at Centro ALGORITMI / University of Minho. He has more than 25 years of experience in the Brazilian Government in positions like the CIO of the National Prosecuting Agency, National Director of Digital Government, and Chief Advisor of the National Secretary of Digital Government. His academic interests focus on strategic planning and design of digital government and digital governance initiatives.

Delfina Soares

Delfina Soares is the Head of the United Nations University Operating Unit on Policy-Driven Electronic Governance (UNU-EGOV). She has been associated with the Operating Unit since 2015, when she joined as Adjunct Associate Professor. She has strong ties to UNU-EGOV's host university, the University of Minho, where she has held various positions over the past 18 years, including Lecturer and Assistant Professor at the Department of Information Systems and as a Researcher with Centro ALGORITMI. Her areas of research and expertise include electronic governance at a national, local, and sectorial level, electronic government interoperability and cross-agency collaboration, electronic democracy and electronic participation, and electronic governance measurement and monitoring.

João Alvaro Carvalho

João Alvaro Carvalho is Full Professor and Head of the Department of Information Systems, School of Engineering, University of Minho and researcher at Centro ALGORITMI. He is also Adjunct Professor at the United Nations University Operating Unit on Policy-Driven Electronic Governance (UNU-EGOV). His academic interests focus on the fundamentals of information systems (involving information, information technology, and human, organizational, and social dimensions) and on enterprise development interventions that involve the implantation, use and exploitation of information technology. He is also interested on research approaches and methods and on curricula and education in information systems.

Joana Carvalho

Joana Carvalho is a Research Assistant at the United Nations University Operating Unit on Policy-Driven Electronic Governance (UNU-EGOV), and a PhD student in Information Systems and Technology at the School of Engineering of the University of Minho. She is also a researcher at Centro ALGORITMI. Her research interests focus on Electronic Governance measurement and monitoring, and digital government for social interventions.