

Framework for Assessing Institutional Readiness of Government Organisations to Deliver Open, Collaborative and Participatory Services

Olusegun Agbabiaka
National e-Government Strategies
33 Oran Street, Wuse Zone 1
Abuja FCT 900281, Nigeria
+234-803-349-5567
segun.agbabiaka@negst.com.ng

Adegboyega Ojo
Insight Centre for Data Analytics,
National University of Ireland
Galway, Republic of Ireland
+353-8711-47406
adeboyega.ojo@deri.org

ABSTRACT

Institutional readiness or the preparedness of an organisation to respond to changes and adapt to new ways of doing things determines to a great extent how effectively organisations can deliver better services supported by a mix of robust processes, right people and infrastructure. Given the increasing pressure to adopt open government approaches including employing open data as developmental resource, governments and their agencies must re-assess their capabilities to address these new demands in addition to existing needs and challenges. This paper describes an ongoing effort by an agency responsible for e-government strategy and implementation to develop an assessment framework to determine the needs and the level of readiness of government agencies to: i) deliver open government services, ii) collaborate with other agencies in sharing data, systems and services for efficient service delivery and iii) engage citizens and other stakeholders in government decision making and co-development of services. Major aspects of the framework including the critical success factors are highlighted. Rather than ranking agencies, the framework is intended to be used for clustering agencies into communities of organizations with similar needs and readiness profiles. This provides a basis for shared solution development within government.

Categories and Subject Descriptors

H.1 [Models and Principles]: Value of information.

General Terms

Measurement, Performance

Keywords

Open; Collaborative; Participatory; Services; FAIR; People; Process; System; Technology; Assessment

1. INTRODUCTION

The evolution of successful e-government practices to include the use of Open Government Data in meeting the rights of individuals, businesses and civil society to access and use government information, engage in policy making, to improve

Permission to make digital or hard copies of all or part of this work for personal or classroom use is granted without fee provided that copies are not made or distributed for profit or commercial advantage and that copies bear this notice and the full citation on the first page. Copyrights for components of this work owned by others than ACM must be honored. Abstracting with credit is permitted. To copy otherwise, or republish, to post on servers or to redistribute to lists, requires prior specific permission and/or a fee. Request permissions from Permissions@acm.org.

ICEGOV2014, October 27 - 30 2014, Guimaraes, Portugal

Copyright is held by the owner/author(s). Publication rights licensed to ACM.

ACM 978-1-60558-611-3/14/10...\$15.00

<http://dx.doi.org/10.1145/2691195.2691251>

existing public services as well as to co-create new services [12] is gaining acceptance by government leadership across the world.

While these new practices are gradually being reflected in international e-government surveys (e.g. the 2014 UN E-Government Survey [12]), guidelines on how agencies can determine their readiness and attainment of open government goals in general are limited [1]. The few works in this space include [9] provided by the World Bank, [2] and [7].

This paper describes the efforts by a government agency responsible for e-government strategy and implementation in developing an effective assessment framework for institutional readiness of federal ministries, departments and agencies (MDAs) to: i) deliver open government services, ii) collaborate with other agencies in sharing data, systems and services for efficient service delivery and iii) engage citizens and other stakeholders in government decision making and co-development of services. The ability to share data, systems and services are inherent requirements for the whole of government approach [8] identified as necessary in [12] for developing integrated and inclusive services.

Similar to the approach taken in [11] where assessment needs are mapped to aspects of existing models, the presented framework is being built on existing models described in [2], [3], [4], [7], [9] and [12]). The framework will be offered to MDAs as a self-assessment toolkit for conducting diagnostic survey of the “As Is” environment with a view to determining their internal capacity and readiness for open government as well as integrated, participatory or inclusive services.

2. BACKGROUND

There are various albeit related definitions for the concept of e-readiness [11]. In this paper, we define “readiness” as the degree to which a government organization (federal ministries, departments & agencies) is prepared or ready to deliver open government services, collaborate with other agencies and co-develop services.

Openness in the context of open government entails three concepts [1]: Transparency - agencies treating information as a national asset and empowering the public with the information needed to hold the government accountable; Participation – tapping into the citizen’s collective expertise in decision making and; Collaboration – agencies collaborating among themselves and with academics, non-profits, etc., to better carry out the business of government.

In the area of transparency, the World Bank’s Open Data Readiness Assessment tool [9] enables assessment of the

readiness of a national, regional or municipal government or an individual agency to evaluate, design and implement an Open Data initiative. According to the manual, Open Data initiative includes the Open Data portal and the associated dynamic Open Data ecosystem rich in both the supply and reuse of Open Data that fuels innovations by many types of stakeholders. Another complementary model described in [2] includes assessment of the various types of value generated by an OGD infrastructure and the relations among these value types. This is intended to enable a deeper understanding of the whole value generation mechanism and a rational definition of improvement priorities of open government data programs.

In the area of collaboration through data, systems and service sharing, a number of assessment frameworks have been developed over time including: [4] which describes major aspects and constructs in government information sharing; [6] which elaborates on aspects of inter-agency interoperability and [10] which identifies different aspects of collaborative data sharing.

Finally, in the area of participation and engagement of citizens, the UN E-government survey [12] describes it as the process of engaging citizens through ICTs in policy and decision-making in order to make public administration participatory, inclusive, collaborative and deliberative for intrinsic and instrumental ends. The survey measures e-participation at three levels: e-information, e-consultation and e-decision making.

The above models and other provide the requisite conceptual underpinning for the framework.

3. THE PROGRAMME

For ease of identification and reference, we have tagged the conceptual model “FAIR” where FAIR stands for “*Framework for Assessing Institutional Readiness*”. It is a set of tools that will enable us assess the needs and readiness levels of government agencies using some specific parameters.

The assessment is the measure of the gap between current practices of service delivery and best practices. A principal outcome of this exercise would be a **Blueprint** detailing a remedial framework for seamless transition and improvement including a **knowledge base** of the assets that are available across government agencies as well as the needs & readiness of the agencies to deliver open, collaborative and participatory services.

The assessment will provide a strong basis for joined up thinking in terms of seeking solutions that can be shared across government which will ultimately reduce cost, improve inter-agency collaboration and cooperation and support better strategy formulation.

3.1 Goal and Objectives of FAIR

The overarching goal of the assessment is not to generate competition between government agencies; it is focused primarily on transformation and development. It is designed to help agencies of government identify their strengths, challenges, and priorities as well as define strategies for delivering open, collaborative and participatory services. It will give a pointer to where they are and where they should be in the future.

The objectives of FAIR include the following:

1. Provide analysis of the Agency’s operations and resources (to support delivery of open, collaborative services);
2. Produce a clear vision of the goals ahead;

3. Conduct analysis of existing knowledge, skills sets and experience of employees (to support delivery of open, collaborative services);
4. Highlight areas in which agencies are lagging behind, areas in which progress is being made and areas they need to improve;
5. Produce a blueprint for remedial actions for agencies to reach and attain identified goals;
6. Provide comparisons of development and maturity levels of agencies (to support delivery of open, collaborative services);
7. Provide best practices for benchmarking;
8. Improve the scale, effectiveness and efficiency of the public sector;
9. Improve the ability and capacity of agencies to effectively collaborate and provide better services to citizens and businesses;

3.2 Four Key Dimensions of FAIR

We have identified and grouped the dimensions of our framework into four key areas. Our assessment will therefore focus on readiness level in the four key areas depicted in the diagram below:

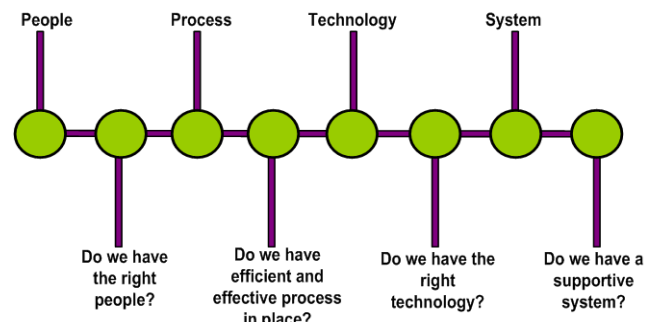


Figure 1. FAIR Assessment Critical Areas

3.2.1 People Readiness

The people factor is a critical component and perhaps the singular most important element of any organization’s readiness to accept change. This section of the assessment will cover evaluation of leadership support readiness, the quality and competence level of staff, leadership development policy, etc.

3.2.2 System Readiness

System in this context means the operating and enabling environment within the organisation. It is concerned with the evaluation of issues such as governance framework, legal powers/framework, institutional framework, organisational readiness, policies, and current practices etc., that provide the conducive environment for inter-agency collaboration & cooperation.

3.2.3 Technology Readiness

Infrastructure (Technology) Readiness focuses on the evaluation of the technology and existing IT infrastructure (hardware, software, Network, DB etc..) readiness, architecture readiness, degree of external data exchange, current level of interoperability of internal departments and units, etc.

3.2.4 Process Readiness

This section will be used to assess the process maturity and capability of the agencies. It will evaluate general support functionalities, current workflow functionalities, existing business processes etc. This section will help agencies focus more on the process (steps, activities, plan, strategies etc..) rather than the outcomes/end results.

4. PROGRAMME IMPLEMENTATION

4.1 Assessment

The four key dimensions of FAIR that we have identified for evaluating institutional readiness will be further broken down into several sub-dimensions. Considered together, these dimensions will indicate the readiness level of organisations to deliver open, collaborative and participatory services. For the purposes of this paper, we have used the System Dimension as our example.

Below is a list of the various sub-dimensions that we have developed for assessment under the System dimension. Given that this is an ongoing work, the sub-dimensions are subject to modification.

Table 1. Sub-dimensions of System

Dimension	Description
Governance Readiness	This sub-dimension seeks to assess the presence of supporting mechanisms that will govern the process of preparing for the desired change
Legal & Policy	The existence of relevant legal and policy framework that can aid or impede the desired change
Adaptive Leadership	The availability of leaders within the organisation that can adapt, innovate and thrive in complex, challenging and uncertain environments.
Resource Readiness	Degree to which the resources of the agency can support the change. It assess whether the agency has effective financial policies and systems to support the viability and sustainability of the new change.
Innovation Capability	The degree to which the agency can create values from implementing new ideas and support the idea from conception to delivery.
Information Sharing	Degree to which agency's policies, practices, legal framework support information sharing and willingness to embrace information sharing.
Collaboration & Engagement	Degree to which the agency is willing to collaborate within itself and with other agencies as well as engage stakeholders and the public in the delivery of its services.
Open Data Readiness	Degree to which the agency is ready to make data available to other agencies and the public in a transparent way.
Change Management Readiness	Degree to which the agency is prepared to adapt to the anticipated or desired change and evolve.

Aggregation of scores of all the sub-dimensions will provide the average readiness score for the key dimension under review.

4.1.1 Standards

The following standards will be applied to scoring the readiness statements under the sub-dimensions:

- 1 – No Progress
- 2 – Some Progress
- 3 – Real Progress Is Being Made
- 4 – Ready and Effective

4.1.2 Standards and Interpretation

Table 2. Interpretation of the FAIR Standards

Std	Meaning	Readiness Level	Remarks
1	No Progress	Poor Readiness Level	Almost impossible to implement change
2	Some Progress	Low Readiness Level	Very difficult to implement change
3	Real Progress Is Being Made	Medium Readiness Level	Little difficulty in implementing change
4	Ready and Effective	High Readiness Level	Fully possible to implement change

4.1.3 FAIR Worksheet

Table 3. Example of FAIR Worksheet

	FAIR Statement	Standard	Evidence	SO	TW
1.1	Sample Statement				

Legend

- **FAIR Statement:** the good practice statements related to each sub-dimension. They are the statements to be scored or rated using the standards provided
- **Evidence:** what the agency is doing well. Ratings of individual sub-dimension would be supported by evidence to buttress the rating & judgment.
- **SO:** Strengths and Opportunities – the agencies are expected to provide what they consider as strong points, resources, assets etc., of the agency that can be leveraged for immediate traction.
- **TW:** Threats and Weaknesses – the agencies are expected to provide what they consider as barriers, gaps, challenges, needs etc., of the agency that can impede the desired change.

4.2 Result Presentation

4.2.1 Overall Assessment

Aggregation of scores in the 4 major dimensions will provide the overall institutional readiness level of the agencies and point out the areas requiring improvements, areas where the agencies are making progress and also assist in recommending strategies for building the necessary capacities required for seamless transition to the new paradigm.

4.2.2 Assessment Grouping

Based on the outcome of the overall assessment, the agencies will be classified into four major clusters using the color-coded bar depicted below:



Figure 2. FAIR Color-Coded Bar

Legend

Red: Poor Readiness Level **Amber:** Low Readiness Level
Yellow: Medium Readiness Level **Green:** High Readiness Level

4.3 Critical Success Factors

We consider the following as critical success factors:

1. Endorsement and buy-in of relevant government authorities – NITDA¹ & MoCT²
2. Institutionalization of the Programme - so that it becomes a system-wide tool for readiness assessment;
3. Sincerity of purpose – on the part of the agencies to be open and willing to provide honest answers and opinions;
4. The right mix of people at the agencies - It is expected that no one person at the agencies will have all the answers to the items in this tool, it is therefore imperative that the right mix of people be identified and assembled to collectively provide the right answers.
5. There is also a need to make the whole exercise participatory or self-assessment in nature [5] where agencies themselves are able to drive and deeply engage in the process of data collection, analysis and interpretation and review of results.

4.4 Pilot

For immediate traction, acceptance and sustainability, the FAIR Assessment will begin with a pilot phase. In this phase, we plan to carefully identify 10 KEY agencies that will be used to test the instruments and approach. The results, experience and feedback from the pilot will be used to update the toolkit and process and eventually form a strong foundation for the next phase which will cover more agencies.

5. CONCLUSION

Institutional Readiness means being prepared and in summary it can be described as a combination of the three elements below:

1. Having the right conditions and resources in place to support the change process;
2. Having a clear vision and objectives for the intended change; and

3. Having the motivation and attitudes to engage with the change and make it work.

The conceptual framework presented in this paper will provide the requisite ingredients required for assessing readiness to deliver open, collaborative and participatory services that will fast track rapid transformation and global competitiveness.

6. REFERENCES

- [1] Bertot, J.C. et al. 2012. Measurement of Open Government: Metrics and Process. *2012 45th Hawaii International Conference on System Sciences*. (Jan. 2012), 2491–2499.
- [2] Charalabidis, Y. et al. 2014. Evaluating Second Generation Open Government Data Infrastructures Using Value Models. *2014 47th Hawaii International Conference on System Sciences*. (Jan. 2014), 2114–2126.
- [3] Cresswell, A.M. et al. 2013. *GOVERNMENT INFORMATION SHARING: A PLANNING TOOLKIT* :
- [4] Estevez, E. et al. Government Information Sharing – A Framework for Policy Formulation.
- [5] Janssen, M. 2010. Measuring and Benchmarking the Back-end of E-Government : A Participative Self-assessment Approach. *Ifip International Federation For Information Processing* (2010), 156–167.
- [6] Klischewski, R. and Askar, E. 2012. Linking service development methods to interoperability governance: The case of Egypt. *Government Information Quarterly*. 29, (Jan. 2012), S22–S31.
- [7] Lourenço, R.P. 2013. Open Government Portals Assessment : A Transparency. (2013), 62–74.
- [8] Ojo, A. and Janowski, T. 2010. A Whole-of-Government Approach to Information Technology Strategy Management. *Strategy*. (2010), 72–81.
- [9] Open Government Data Working Group 2013. *This Open Data Readiness Assessment tool, created by the World Bank, is available under the Creative Commons Attribution 3.0 Unported (CC BY 3.0) license*.
- [10] Sayogo, D.S. and Pardo, T. a. 2011. Understanding the capabilities and critical success factors in collaborative data sharing network. *Proceedings of the 12th Annual International Digital Government Research Conference on Digital Government Innovation in Challenging Times - dg.o '11*. (2011), 74.
- [11] Shareef, M. et al. 2008. A Readiness Assessment Framework for e-Government Planning - Design and Application. *Environment*. (2008).
- [12] United Nations Economics & Social Affairs 2014. *E-GOVERNMENT SURVEY 2014 - E-Government for the future we want*.

¹ National Information Technology Development Agency.

² Ministry of Communication Technology.