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Government (Big) Data Ecosystem: Definition, Classification of Actors, and Their Roles

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Abstract: Organizations, including governments, generate (big) data that are high in volume, velocity, veracity, and come from a variety of sources. Public Administrations are using (big) data, implementing base registries, and enforcing data sharing within the entire government to deliver (big) data related integrated services, provision of insights to users, and for good governance. Government (Big) data ecosystem actors represent distinct entities that provide data, consume data, manipulate data to offer paid services, and extend data services like data storage, hosting services to other actors. In this research work, we perform a systematic literature review. The key objectives of this paper are to propose a robust definition of government (big) data ecosystem and a classification of government (big) data ecosystem actors and their roles. We showcase a graphical view of actors, roles, and their relationship in the government (big) data ecosystem. We also discuss our research findings. We did not find too much published research articles about the government (big) data ecosystem, including its definition and classification of actors and their roles. Therefore, we lent ideas for the government (big) data ecosystem from numerous areas that include scientific research data, humanitarian data, open government data, industry data, in the literature.

Keywords: big data, big data ecosystem, classification of big data actors, big data actors roles, definition of government (big) data ecosystem, data-driven government, eGovernment, gaps in data ecosystems, government (big) data, public administration, systematic literature review

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