Intermediary role	Proposed activities	Affected usability barriers	Examples of NPOs' activities	Source(s)
Demander of data	Request for specific datasets to be released, or lobby for particular open data policies.	Lack of communication between data providers and users	Demanding data from the local government; pointing out the lack of data to the specific government agencies	(Baack 2015; Schalkwyk et al. 2015; Enaholo 2017)
Producer	Collect data in the field and merge it with existing datasets, in order to create new data.	Lack of reliability/quality; issues with linking/combining the data	Re-sharing data requested from the government; carrying out investigations to assess projects performances; scraping data	(Chattapadhyay 2014; Reggi and Dawes 2016; Ricker, Cinnamon, and Dierwechter 2020)
Validator	Validating data, checking its accuracy.	Lack of reliability/quality	Analysing and interpreting the data; cleaning data	(Gascó-Hernández et al. 2018; Yoon, Copeland, and McNally 2018; Enaholo 2017; Johnson and Greene 2017; Chattapadhyay 2014; Thakuriah, Dirks, and Keita 2017)
Developer	Developing websites or applications.	Lack of availability/accessibility; issues with findability, usability, and linking/combining of the data	Producing tools and budget analysis; implementing platforms; building a data repository	(Maail 2017; da Silva Craveiro and Albano 2017; Schalkwyk et al. 2015; Mutuku and Mahihu 2014; Yoon, Copeland, and McNally 2018; Enaholo 2017; Johnson and Greene 2017; Thakuriah, Dirks, and Keita 2017; Ricker, Cinnamon, and Dierwechter 2020)
Communicator	Present data in formats, contexts, and through channels fit with the skills and knowledge of end-users.	Issues with usability, understandability, and linking/combining of the data	Providing budget data in machine-readable and open formats for government offices; developing a toolkit to understand government policy; publishing reports; creating data visualisation tools; supporting communities' use of secondary data	(Maail 2017; Reggi and Dawes 2016; Gascó-Hernández et al. 2018; Mutuku and Mahihu 2014; Yoon, Copeland, and McNally 2018; Enaholo 2017; Johnson and Greene 2017; Chattapadhyay 2014; Thakuriah, Dirks, and Keita 2017)

Intermediary role	Proposed activities	Affected usability barriers	Examples of NPOs' activities	Source(s)
Aggregator	Aggregating open data from multiple sources.	Issues with findability and linking/combining of the data	Consolidating and translating raw data into usable data; data aggregation or integration	(da Silva Craveiro and Albano 2017; Schalkwyk et al. 2015; Yoon, Copeland, and McNally 2018; Chattapadhyay 2014; Thakuriah, Dirks, and Keita 2017)
Educator	Addressing the lack of knowledge and improving skills of the end-user of open data.	Issues with usability and understandability of the data	Providing training and workshops to the general public, private and public sector to raise their skill level and knowledge of open data	(Maail 2017; Reggi and Dawes 2016; Gascó-Hernández et al. 2018; Yoon, Copeland, and McNally 2018; Enaholo 2017; Gascó-Hernández et al. 2018; Baack 2015; Ricker Cinnamon and Dierwechter 2020)

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