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NATURAL DISASTER MANAGEMENT OPEN ACCESS REPOSITORY IN IRAN (NDM-OAR): THE IMPORTANCE AND NECESSITY OF A FEASIBILITY STUDY

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Highlighting the current issues and core challenges of natural disaster information management (NDIM) in Iran, this study is designed to discuss the importance and necessity of applying an open access repository (OAR) for natural disasters in Iran. For this purpose, information flow problems in the field of natural disasters (specifically earthquakes, floods, and droughts) have been addressed, and the capabilities of information science (IS) have been discussed, investigating a salient solution from NDIM perspective.

Following an all-hazard, multi-stakeholder approach (UNISDR, 2015), the information reported in this article is the result of a content analysis on research papers published on natural disaster management (NDM), newspaper articles, and available gray literature (e.g. theses, best practices and lesson learned reports). Several semi-structured interviews (purposeful sampling) have been conducted and coded regarding the NDIM perceptions, behaviors and needs of the sample being studied. Stakeholders participating were including three groups of those who have direct involvement within the process of disaster (Lettieri et al., 2009) management including governmental agents, academicians, and NGOs' actors.

Our definition of an OAR in this study stemmed from a network perception in the process of information flows. A network view is in contrast to other existing approaches in the theoretical discussion in the field such as linear and cyclic approaches. In this study, OAR referred as a socio-technological information technology, which is in fact a network of content, actors and policies (Rieger, 2014). To be well-designed and implemented, the presented concept of OAR, like other information technologies, needs to acquire sufficient acceptance from the community it tends to serve. However, the essence of "information" and its context-based characteristics needs to be investigated and emphasized in depth at first hand, to assure the effectiveness of an OAR application in NDM field.

Based on the outcome of this qualitative study, some of the most important challenges in natural disaster information management (NDIM) among the studied stakeholders are as follows:

- Producers, users, types and formats of information resources in the field of NDM are scattered widely and varied extensively, potentially classifiable by plenty of factors such as volume, speed of creation, sensitivity, scope, and validity
- With relatively variable scales to different stakeholders, there hardly exists a specific strategy or well-defined instructions for documentation of the experiences and lessons learned, as well as available, valid statistical information regarding damage and loss and other consequences, in different phases of a NDM (sometimes referred to as pre-crisis, in crisis,

and post-crisis in the literature). The great tendency to exchange information in an unofficial, oral manner, and information was observed among almost all the stakeholders studied, suggesting a professional field-based culture of sharing in NDM information network.

- Information resources created on different phases of NDM tend to vary greatly regarding accessibility. Besides high degrees of confidentiality, which is an expected characteristic of the information flows in the "response" phase, strictly "sensitive"-labelled information seems to be one of the core barriers in reaching a smooth, and surprisingly "unsafe", information flow in other phases of NDM.
- Comparing governmental agencies, academicians, and NGOs with the two leading drivers in NDIM, "degree of perceived information need", and "accessibility", NGOs appeared to rate "high" for former, while "low" in latter. Whereas for the governmental agencies, and academicians, both driving factors seem to be relatively in accordance with each other; the availability of information meets the degree of their information need.

Accordingly, it is argued that among other solutions available, designing a feasibility study for an NDIM-OAR in Iran is of great importance and reasonable necessity, which acquires a robust research design with a qualitative and collaborative approach, at first place. This approach also helped to address some methodological suggestions for incorporating a taste of future in IS studies with the hope of a more sustainable, resilient information technologies.

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