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A platform approach for Information Management in Mine Action by using Open Source frameworks

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1   ABSTRACT

The definition of a standard for information management for Mine Action, which is widely adopted and used, is problematic, due to the diversity of actors operating in this domain, and to the diversity of environments and cultures.

In recent years new web technologies and open source business models have created alternatives to custom code development. Several off-the-shelf modules (either open source or proprietary) are now available that can be integrated to match end users' needs with reduced costs of development and maintenance.

In project D-BOX we have followed this approach. We have selected two open source frameworks (Mediawiki ®, the engine of Wikipedia ® and uDig, an open source GIS reader) and we have created: D-BOX for Planning (also known as Minewiki), to manage processes and information, and D-BOX for Operations, to assemble data from sensors and humans and to update hazard information. These tools can exchange information thanks to a web service infrastructure we call D-BOX Sharing.

By using existing open source modules we saved time and money and we could work more intensively with End Users. For example, we have co-created a procedure with End Users for Non-Technical Survey which has been implemented in D-BOX for Planning. The D-BOX architecture is also the outcome of workshops with End Users.

D-BOX platform (planning, operations and sharing) can help deminers to assemble and assess data to create information to define hazard areas, make and receive reports and issue instructions. The way forward with D-BOX is to integrate new tools and implement other use cases, such as Results Based Management.

D-BOX platform could provide the means to establish an effective value chain linking all the stakeholders in Mine Action.

Key-Words: Humanitarian Demining, Information Fusion, Information Management, open source, co-creation.

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