

A community ergonomics framework for the development of early warning systems

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ABSTRACT

The heavy rains that hit Natal city, Brazil, on June 14th, 2014, during the 2014 FIFA World Cup, caused an intense landslide in Mãe Luíza neighborhood, that resulted in a huge crater, affecting the life of 187 families, and 26 of them had their homes completely destroyed. It made explicit the weakness and unpreparedness of government and nongovernmental organizations and community to deal with crisis management. This paper highlights the relevance of a situated and participatory design framework for the development of an ICT solution for an early warning system for disaster situations to be used by members of communities and agents through low cost mobile devices. Community Ergonomics method was used to understand the community demands, to model the current early warning system, and finally to propose a new framework to develop and test a new early warning app for disaster risk and orientation during evacuation. It is expected that it will actually help to improve the global resilience of the city in face of the risks and disasters.

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