1ST SYMPOSIUM OF APPLIED RESEARCH

Federated Social Networks in Environmental Sustainability

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BACKGROUND: Considering that the emergent environmental problems represent a critical and relevant part of the global and social problems of nowadays, the Information and Communication Technologies (ICT) continue to be seeing as the basic lever for possible solutions to efficiently manage their identified causes. Even new technologies provide new experience, new resources (not only technological) are required too. This raising technocentric society make the human behaviour changing, necessarily. Although it seems the contrary, social networks promote the human-machine and not the human-human binomial, which, even looks efficient, prevents it from being effective, since, for instance, do not allow co-decision. Brokering the necessary resources, timely, according to a particular context and make them interoperable efficiently and effectively, is the topic!

OBJECTIVES: Extend a Federated Social Network to allow the effective participation of its members, ensuring abstracted communicational capacity of technology platforms, is the focus of this research. The work will be applied to a *Greenhouses Environmental case study Sensing and Control (GESC)*.

METHODOLOGY: The development of this work has adopted a set of activities geared to the "final product". It used: a) SCRUM to specify the tasks and monitor their development; b) mokups to model interaction widgets and patterns to system architecture and c) dashboard prototype development to sustain context aware brokering and effective communication. *Trello* supported the project management, Dropbox supported the arquive and the web site http://justowork.com/tiagoeirinha/thesis/ monitor the results.

RESULTS AND CONCLUSIONS: This research seeks to define an architecture, a functional model and a technological platform able to support the effective integration of the federated social network members. The work will be applied to a Greenhouses Environmental case study Sensing and Control (GESC), where a dashboard will provide a way to monitor and intervene remotely, assisting decision making in situations of necessary reaction and or prevention.

Keywords: Federated Network, Communicational Channel, Effective Integration, Dynamic Reconfiguration, Elastic Search