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XXIII Congreso de Ingeniería de Organización



**Organizational  
Engineering  
in Industry 4.0**

**BOOK OF ABSTRACTS**

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# Digital social innovation network: an explorative inventory and analysis of Spanish actors.

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Digital social innovation (DSI), a recent derivate emerged from the heart of SI, is included in the digital agenda policy of the European Commission. However actors working on DSI may be different from those innovators working on SI. If they differ, who are these new DSI actors in Spain and what are the geographical trends? How is the DSI network?

**Keywords:** Digital social innovation; collective awareness platforms, collaborative net-work; collective intelligence, innovation ecosystem.

## 1 Introduction

European Commission promotes a new wave of social experiments leveraged by information and communication technologies (ICT) called DSI initiatives. They constitute a new organizational model developing 1.451 projects and involving more than 2.252 organizations. DSI can be seen as a model or an organizational structure that tend towards network configurations hosting all elements and activities which make up an ecosystem (Moreno, 2009). It can be defined as “an effective organizational network model leveraged by information and communication systems (ICTs) whose ends and means are social” (Rodrigo, 2018).

## 2 Objectives

The aim of this paper is to identify who are the innovators or DSI actors in Spain, the domain in which they are developing, the geographical trends and the characteristics of the Spanish network.

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### 3 Methods

Theories of social change and network societies, like Latour's actor-network theory (2007) illustrates how DSI networks contributes to social change and the social connections that exemplify "a social group in a solid community structure" (Murray, 2010). The methodology will support a foundation for (1) exploring the state of art of the network, (2) inventorying and classifying the entities that are currently operating in Spain and finally (3) conducting an analysis of the network that allows drawing the first conclusions.

### 4 Results

The H2020 data bases list of 99 projects and 198 actors in Spain. They were filtered down to 182 active organizations. Among the organizations registered it was found that 40% are headquartered in Cataluña, followed by 20% operating from Madrid. The majority (34%) are government agencies, 32% Private businesses, 18% Non-profit associations, 13% Foundations and 3% Non-governmental organizations. In terms of domain, it was found that 40% of organisations belongs to the network of Fab Labs boosted by the Massachusetts Institute of Technology, followed by the awareness networks (31%), organisations focus on collaborative economy (14%), funding accelerators and incubators (11%) and finally, platforms concerned on open democracy (4%). Finally, the leading technology trend is open knowledge (39%) followed by open networks (30 %). Only 10% of projects are linked to two or more organisations in the network.

### 5 Conclusion

Spanish DSI network is poorly connected. There is a lack of knowledge and social skills at the grass-roots level assumed the little relevance given to social subjects in most education systems. On the other hand, there is an alert on the risks of the centralization of power by a small number of technological companies. Consequently if the education system fails, it will be difficult to reach the critical mass needed to achieve social change, to succeed the empowerment of grassroots and other desired results to harness as the collective pool of social knowledge and the potential collective intelligence lying under the DSI network.

### References

- Latour B (2007) Reassembling the Social: An Introduction to Actor-Network-Theory (Clarendon Lectures in Management Studies)
- Moreno A, Mataix C, Acevedo M (2009) Adopting new strategies and network structures in ONGs. *Revista Española del Tercer Sector* /nº11, enero-abril 2009 Madrid (pp 17-51)
- Murray G, Caulier-Grice J, Mulgar G (2010) The open book of social innovation. London: Young Foundation/NESTA
- Rodrigo L, Palacios M, Ortiz-Marcos I (2018) Digital Social Innovation: analysis of the conceptualization process and definition proposal. *Dirección y organización: Revista de dirección, organización y administración de empresas*, ISSN 1132-175X, N°. 67, 2019, págs. 59-66.