



13th International Conference on Industrial
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XXIII Congreso de Ingeniería de Organización



**Organizational
Engineering
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BOOK OF ABSTRACTS

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**“13th International Conference on
Industrial Engineering and
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Towards the Science Map on Sustainability in Higher Education

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Keywords: Sustainability; Higher Education; Tech mining; Data science; Science map.

1 Introduction

Sustainability is an issue relevant to all (organisms and individuals) due to interaction with the environment. Thus, according to the United Nations education is the basis for improving our lives and sustainable development (2016).

The aim of this study is to identify who, where, when and what has been developed in area of sustainability in higher education. Tech mining helps answer these questions (Garechana et al. 2012a). Text-mining tools make it possible to analyse bibliometric elements and relationships between elements (Garechana et al. 2012b).

2. Sample and Methodology

The research employs the tech mining process methodology proposed by Porter and Cunningham (2004). In order to prepare the scientific technological study, coverage of the field contained in the databases was analysed: Web of Science (WOS), Scopus, EBSCO, Science direct, Springer, MPDI, Taylor & Francis Online, Emerald insight, Education Database (ProQuest) and ERIC.

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3 Results

By using text mining techniques it is possible to create the technological landscape in sustainability, we display the map created using the 765 institutions with more than two records. This map shows the co-occurrence of two or more institutions participating in the generation of a document. The respective map generated 1455 nodes and 2689 edges.

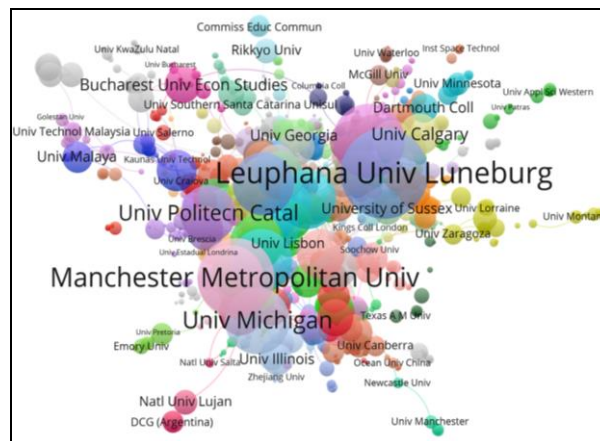


Fig. 1 Authors' affiliation names co-occurrence map created using the 765 institutions with more than two records.

4 Conclusion

Establishing the science map of sustainability in higher education allows us to understand the current state of science and therefore set development goals. This advance helps to show, for example, that the field begins in 1991 but its development explodes from 2005 to 2017, the year after which new terms begin to lose steam, making it possible to infer that it has begun to mature.

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