Gathering tourist indicators by using twitter data analysis

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Nowadays tourism stand for important revenues in most countries economies [1]. For instance in Spain, the travel industry represents 11% of its GDP, only in the year 2017 it provided 2.3 million jobs position on hotel, restaurant and transport sectors, and is growing [2]. The highly impact that tourism has on the economy clearly demands a deeper understanding of both the industry internal dynamics and the tourists preferences and behavior.

On the other hand, during the latest years, we have witnessed the outstanding growing of both smart-phone technologies and social media (Twitter, Facebook, Instagram, etc.). This disruptive combination has brought on the noteworthy increase of available information about people behavior. The literature shows a plethora of works using this information to study different problems regarding to social life [3], marketing and businesses [4], and tourism as well [5]. The latter is specially interesting because people tend to increase their social network activity when they are traveling [6]. This fact implies that there are a huge among of information available about tourists preferences that can be used to obtain precise tourists indicators in order to enhances the travel companies management, and improve the tourists experiences.

We aim to use data from Twitter to obtain tourism indicators in the Mediterranean coast area. Tourism in this region has steadily grown since the post-war years, when the industry, following the mass production paradigm, started to standardize holiday packages offering relaxing time of sun and sea at a competitive price [7]. In this work, we analyzed the European tourists preferences in the zone (see Fig. 1), the differences between low and hight seasons, which are the most popular places, where the tourist frequently returns, which languages do they use, and the tourist movement around the cities.

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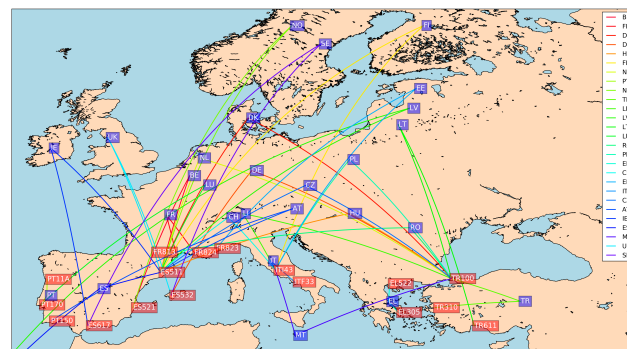
[9] https://www.iso.org

Fig. 1. The map shows the connection between the European Union countries and the places in the Mediterranean area where the tourists from those countries frequently travel. The name of the places is giving by the *NUT* 2 code [8], and for the countries by the standard *ISO* 3166-2 [9].