Call for an MSc student in Environmental Studies 2022-23

Research context: Assessing Cultural Ecosystem Services (CES) recently gained increasing importance in informing landscape and urban planning and management. As aligned to core values of justice, care and reciprocity, values ascribed to CES have been defined as inherently relational and their assessment is believed to improve the social legitimacy of the corresponding decisions taken. The use of Social Media (SM) data and metadata proved promising in undertaking this task, overcoming hurdles due to more time- and energy-intensive traditional data collection methods, as well as capturing the nuances of multiple context-based and plural relational values ascribed to CES. Yet, in addition to issues of data interpretation and representativeness, the large volumes of unstructured SM data available, can challenge their use and operationalization. Despite rapid advances in automatic data analysis, studies relying on a pre-trained software or pre-established dictionary, whether for image classification or text mining, appear to have limitations in dealing with data variety and non-standardized format. Human brain, in turn, is apt to embrace the complexity and context-dependency of the data, although for relatively small samples. Therefore, a collaboration between human and machine intelligences is preferable.

Description and objectives of the MSc thesis: The MSc thesis aims to establish a standard protocol for CES assessment from SM content. The student will support the testing and implementation of the pilot version of the protocol by:

(1) manually analysing a subset of data collected within the Barcelona Metropolitan Area (AMB) following the coding protocol;

(2) using a software to automate the analysis on the rest of the dataset and evaluating the outcome precision.

Requisites of the student: The candidate should be a student of the Master in Interdisciplinary Studies in Environmental, Economic and Social Sustainability (MEISAES, ICTA-UAB). She/he must be fluent in English and previous experience with data analysis and programming is preferable.

Technical details: The thesis will be supervised by Dr Fulvia Calcagni (Humboldt University of Berlin) and Dr Johannes Langemeyer (ICTA). We expect that a revised version of the MSc Thesis could be submitted to a peer-reviewed journal for publication.

If you are interested on writing your MSc thesis on this topic, please contact
fulvia.calcagni@hu-berlin.de; johannes.langemeyer@uab.cat

Literature:

Calcagni, F., Nogué Batallé, J., Baró, F., Connolly, J. J. T., Langemeyer, J. (2022) A tag is worth a thousand pictures: a framework for an empirically grounded typology of relational values through social media. *Ecosystem Services*

Hongmei Zhang , Ruihong Huang , Yechen Zhang & Dimitrios Buhalis (2020): Cultural ecosystem services evaluation using geolocated social media data: a review, Tourism Geographies https://doi.org/10.1080/14616688.2020.1801828