



## A preliminary analysis of a crowdsourcing platform for participatory assessment of urban landscapes by university students using GIS

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The fields of information technology and geoinformatics have experienced rapid growth and widespread public adoption, with technologies like crowdsourcing facilitating advances in how the public can communicate with scientific communities and even contribute valuable data.

However, there is still hesitation in actively engaging the public in environmental or landscape related studies. The start contract of availability of crowdsourcing technologies and lack of use thereof is particularly noticeable in university education, where the technological potential of smartphones, widely owned and used by students, remains largely untapped for educational and research purposes. This study is part of a larger exploration of the potential of engaging students in participatory georeferenced landscape assessment, aiming to advance relevant environmental research and also make education in landscape and architecture more interactive and synergistic.

Starting from an initial theoretical investigation our work proceeded to the examination of the developed ideas in practice. A dedicated crowdsourcing mobile application was developed and tested as a pilot study with a small number of students, before proceeding to the inclusion of large numbers of students which is the end goal of the ARCHIMAP crowdsourcing project. This initial "test" targeted both potential practical challenges as well as software and generated-data related challenges. To this aim the Lycabettus hill and surrounding neighborhoods were investigated as a case study. Students were given the application and their interactions with it were recorded in detail, tracking their movement and location, recording their landscape and architecture assessments and evaluating the technical performance of the application.

Other than the observation of technical and functional challenges the study also initiated a brief investigation of the potential utility of the results. This was carried out by implementing a conventional method of analysis of landscapes, the so called ULQI (Urban Landscape Quality Index) and investigating its correlation and potential synergy with the results submitted by the

students through the novel crowdsourcing app for georeferenced landscape assessment.

The results demonstrated that the developed app was both functional and useful and could therefore be shared to more students of NTUA, with expected benefits both for the educational processes but also for the scientific research of the institution on landscape quality.