SERA
Seismology and Earthquake Engineering
Research Infrastructure Alliance for Europe

WP 5: Towards an open-access database in DSS data

I. DeFelipe, R. Carbonell, M. Ivandic, R. Roberts

Keywords

DSS data, ICTJA-CSIC database, EPOS, SERA

Figures

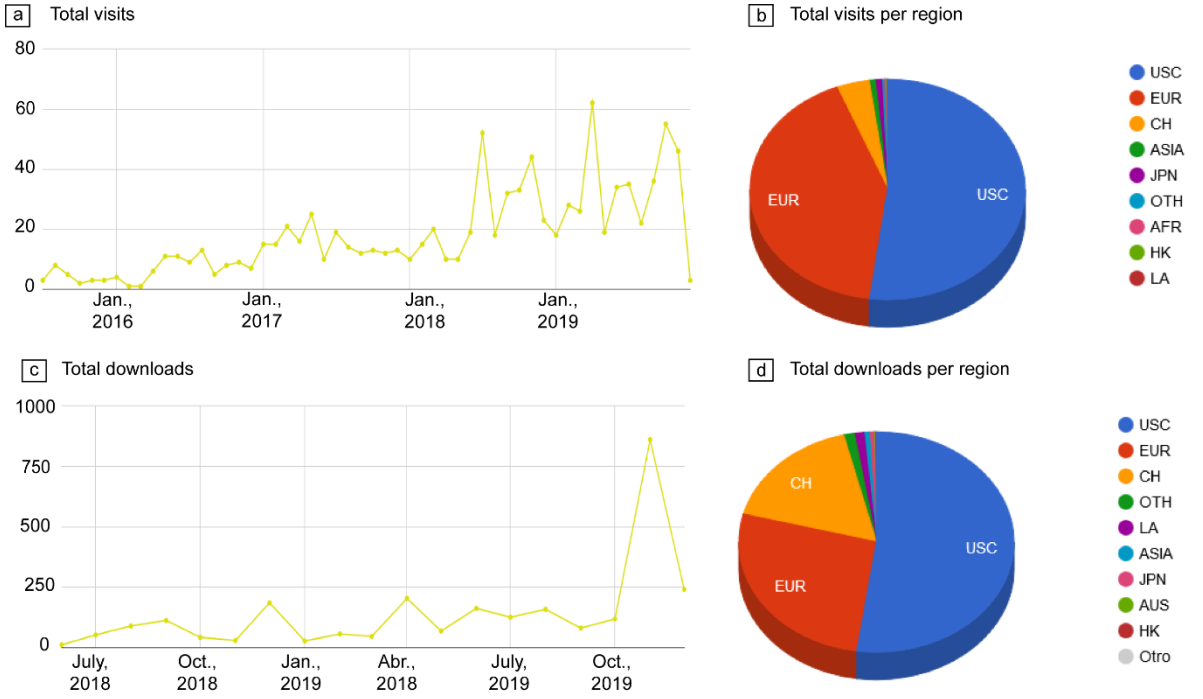

Figure 1. a and b). Total visits and total visits per region of data from the ICTJA-CSIC dataset; c and d) total downloads and total downloads per region of data from the same dataset, last access December 2019). USC: USA and Canada, EUR: Europe, CH: China, OTH: others or not defined, LA: Latin America, ASIA: Asia, JPN: Japan, South Korea and Taiwan, AUS: Australia and New Zeeland, HK: Hong Kong, AFR: Africa

Main Results

The increased volume of scientific data since the last decades is enhancing a new plan to facilitate integrated use of open access data and data products. Tackling viable solutions for Solid Earth challenges, the European Plate Observation System project (EPOS) is a long-term plan to facilitate distributed research infrastructures in Europe. In particular, within EPOS, a Thematic Core Service in seismology aims to provide open access data of seismological products services. Among the different e-infrastructures, stands out SERA, which final aim is to spread the scientific knowledge of earthquake engineering and seismology data trying to make research data more accessible (DeFelipe et al., 2019a, b). The availability and accessibility of these data, therefore, is of foremost importance for the society, including scientists, decision-makers and the general public.

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During its 50 years' history, the Institute of Earth Sciences Jaume Almera (ICTJA-CSIC) has generated numerous data in the fields of geophysics, mineral geochemistry and volcanology among others. This work provides a review of the most important seismic campaigns and a comprehensive dataset of geophysical data acquired in the Iberian Peninsula since the 90's, both onshore and offshore. The Iberian Peninsula has attracted the attention of international researchers in the fields of geology and geophysics for decades due to the exceptional outcrops of Alpine and Variscan mountain ranges, wide Cenozoic foreland basins, its offshore margins and its potential for natural resources. Our dataset was also acquired at very different scales, from continental/crustal scale to local/exploration scale in different geographical and geological settings. Therefore, we aim to make easily accessible old and recently acquired seismic data and, therefore, set the basis for the future campaigns of seismic data acquisition in order to create a FAIR dataset (Findable, Accessible, Interoperable and Reusable).

Our dataset is being increased since the last two years following the national and international mandates of open access data. In addition, the statistics based on total visits and downloads since its beginning show in general, an increased interest in the research carried out in the ICTJA-CSIC (Figure 1). According to these statistics, our dataset is being used more and more by users all around the world. Interestingly, our database is being visited mainly by users from USA and Canada, followed by European users and China being the third country in number of downloads of any of all the projects included in each dataset.

List of Publications

DeFelipe, I., Alcalde, J., Carbonell, R., Ivandic, M. and Roberts, R. (2019a). Towards an Open Access Data Policy for Deep Seismic Sounding data. SEISMIX2020.

DeFelipe, I., Alcalde, J., Fernandez-Turiel, J. L., Diaz, J., Geyer, A., Molina, C., Bernal, I., Fernandez, J., Carbonell, R. (2019b). Multi-disciplinary data contribution to EPOS e-infrastructure. SEISMIX 2020.

Access to Data and Services

The ICTJA-CSIC database presented in this work is freely available in:
https://digital.csic.es/handle/10261/101879.