



Special Session Proposal

Computational Notebooks for Spatial Data Analysis

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Abstract

Computational notebooks are a new and innovative form of publication that use digital media to combine formatted text and operational code in one publication. When published in the right format, readers can load the code onto their computers, run it locally, adjust it to their needs, experiment with the code and thus enjoy a better learning experience through “learning by doing”. This makes computational notebooks particularly useful for communicating complex quantitative methods.

The aim of the special session is to discuss and prepare the provision of an updated digital version of the CATMOG (Concepts And Techniques in MODern Geography) series published by the Royal Geographical Society with the Institute of British Geographers (RGS-IBG). The original CATMOG series was archived and preserved by the RGS-IBG Quantitative Methods Research Group (QMRG). It includes a collection of 59 publications authored by prominent academics between 1975 and 1996. The series documented advances in quantitative methods in a simple manner serving as an effective introductory text for anyone interested in quantitative geographic methods.

In cooperation with RGS-IBG QMRG, REGION plans the publishing of an updated version of this series based on computational notebooks. The papers will be published open access and without any article processing charges. Therefore, the product will be widely and freely available to all interested actors (researchers, students, analysts in industry and policy, etc.). Because of the creative commons license used for articles published in REGION, the notebooks can also be distributed by all relevant institutions and organizations without constraints.

In this special session we invite submissions aiming to identify and discuss key advantages of the use of computational notebooks including:

- The use of computational notebooks for the teaching and training of spatial data methods;
- The architecture and use of computational notebooks;

- Computational notebooks as a key tool for reproducibility and replicability;
- Tools and methods for publishing computational notebooks;
- The use of computational notebooks for academic publishing;

The special session will ultimately seek to raise awareness and increase the impact of the series. It will offer an opportunity for congress participants to learn about the technology behind computational notebooks and will help them to use that for their own publishing activities.