UNGEGN Webinar Series

Developing Digital Gazetteers Using Free and Open-Source Software
Tuesday 10 May 2022
7:00am – 8:30 am (NY time)

Introduction

"The Four Faces of Toponymic Gazetteers" (Conference paper submitted by Australia)[1] suggested in 2012 that gazetteers can be reimagined to be seen as having "four faces", being:

- A record of official place naming processes.
- A repository of unofficial place names.
- A reflection of the cultural associations of place names
- An information delivery mechanism.

The term 'gazetteer' in a spatial data infrastructure (SDI) context is considered as "any geospatial dataset which contains 'spatial identifiers'". These can be geographical names, postal codes or other indexes for indirect spatial referencing. It is obvious that this technical SDI view on 'gazetteers' is different from the UNGEGN view on 'gazetteers':

'A gazetteer is a list of toponyms arranged in alphabetic or other sequential order, with an indication of their location and preferably including variant names, type of topographic feature and other defining or descriptive information.' (Glossary of terms for the Standardization of Geographical names). Gazetteers also capture the names of oceans, planetary bodies and the moon.

Gazetteers are useful resources and support several functions. They provide an authoritative source for answering "where", for finding geographical features and their location. They are also used to find historical names and alternative names for places such as countries, regions, streets, among other features.

Opensource.com defines the term open source as something people can modify and share because its design is publicly accessible. Open-source projects, products, or initiatives embrace and celebrate principles of open exchange, collaborative participation, rapid prototyping, transparency, meritocracy, and community-oriented development. Open-source software is software with source code that anyone can inspect, modify, and enhance.

UNGEGN has encouraged the establishment of national and regional gazetteers for geographical names. Over time Member States have created conventional paper gazetteers and digital gazetteers with web map interfaces. This web page https://unstats.un.org/unsd/ungegn/nna/geo-names/ provides links to gazetteers for over 18 United Nations Member States and geographic regions.

Objective

This webinar is aimed at capacity building and increasing awareness on the use of technology and innovation within the UNGEGN community on the developing gazetteers using free and open-source software. It will also share methodologies and tools available to create and maintain national and regional gazetteer web services and applications for the management, visualization and dissemination of

[1] https://unstats.un.org/unsd/geoinfo/UNGEGN/docs/10th-uncsgn-docs/econf/E_CONF.101_57_Add1_The%20Four%20Faces%20of%20Toponymic%20Gazetteers_e.pdf

standardized geographical names. The webinar is also in support of the implementation of the UNGEGN Strategic Plan and Programme of Work 2021-2029, specifically Strategies 1 and 5, Technical expertise and Promotion and capacity building respectively.

Overview of Presentations

Brazil
The team from Brazil will present a series of gazetteers covering the geographical names in the 1,000,000; 250,000; 100,000 and 25,000 scales base maps, which have been developed since 2016 in the Coordination of Geodesy and Cartography of the Institute of Geography and Statistics (IBGE), the only organization in charge of the authoritative mapping of the whole country in these scales. The lack of a national names authority in Brazil does not allow us to have a national gazetteer. However, due to the significant role played by the IBGE in the national cartography, the gazetteers are an important source of information on Brazilian geographical names.

Graciosa Moreira and Viviane Diniz, IBGE staff and developers of the gazetteers, will describe the gazetteers system and their development and updating processes using the free and open-source software PostgreSQL and PostGis, as well as their use in the QGis. The limitations of the model used, and the improvements being implemented will also be discussed.

The gazetteers are freely accessible from the IBGE website in csv format and in the Brazilian SDI (Infraestrutura Nacional de Dados Espaciais – INDE) as geoservices and may be used in GIS.

Europe
Since 2006, the European Union has supported projects for establishing an up-to date data infrastructure for a regional European geographical names data service with full coverage of the European region. The Open Regional Gazetteer has been developed under the umbrella of EuroGeographics, the not-for-profit membership association for European national mapping, cadastral and land registration authorities in collaboration with its members. It provides authoritative multilingual geographical names for several feature types, such as administrative units, hydrographic features, populated places and protected sites.

For the development of the *Open Regional Gazetteer Service* open-source software and tools have been used. The Gazetteer is published as a web feature service and is available in GeoPackage format on request. The Open Regional Gazetteer Service, the gazetteer can be used by any application designed for name services.

Pier-Giorgio Zaccheddu, the Convenor of UNGEGN's Working Group on Geographical Names Data Management affiliated to the national geospatial agency in Germany will describe the motivation for the development of a pan-European gazetteer, the situation of accessing geographical names in Europe and the challenges and opportunities encountered for publishing the Open Regional Gazetteer in 2019.

New Zealand
The current Gazetteer system in New Zealand has been operating since June 2013. It was developed and updated with a range of open-source software and tools, such as Python, PostgreSQL and Leaflet. Christopher Stephens, Advisor to the New Zealand Geographic Board Ngā Pou Taunaha o Aotearoa, will describe the Gazetteer system, its development process, and how and where its data is used.

The New Zealand Gazetteer enables sharing of quality geographical names data and acts as a single source of truth for place name documentation. The New Zealand Geographic Board Secretariat welcomes questions to support and improve our collective expertise in this area.

New Zealand's presentation will describe:

- the New Zealand Gazetteer system
- the benefits and challenges of an open-source approach
- the Gazetteer development process
- how the Gazetteer works
- vision for the future of the Gazetteer

Agenda

1. Welcome and opening remarks	Pierre Jaillard, Chair UNGEGN Stefan Schweinfest, Director UNSD
2. **Introduction of Speakers**	Peder Gammeltoft, Norway Chair of Working Group on Training Courses in Toponymy, Webinar Moderator
3. Presentations **a. Brazil** *Development of electronic gazetteers using open-source software – Gazetteers of Brazilian Base Maps* **b. Europe** *An Open Regional Gazetteer for Europe – Challenges and opportunities"* **c. New Zealand** *Development and use of an electronic gazetteer with open-source technologies'*	 Graciosa Moreira and Viviane Diniz, Brazilian Institute of Geography and Statistics (IBGE), Brazil Pier-Giorgio Zaccheddu, Federal Agency for Cartography and Geodesy, Germany Christopher Stephens, Advisor, New Zealand Geographic Board Ngā Pou Taunaha o Aotearoa, Administered by Toitū Te Whenua Land Information New Zealand
4. **Questions and discussions**	Moderated by Peder Gammeltoft
5. Closing remarks	Peder Gammeltoft

Registration

Please register to attend the webinar: https://forms.office.com/r/JPTjHPGDhj

Organizer

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