Volume 4, No. 04 April 2018

GeoForAll

Monthly Newsletter

Be part of "Geo for All"

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1. Activities of the Network

- Ottawa, Ontario, OSGeo Meetup Group meets on the third Thursday of each month. If you are located in the area, go to the link to sign up to the group and get updates about future events. (http://www.meetup.com/OttawaOSGeo/)
- **United States planning US OSGeo Chapter**. Technocation (https://technocation.github.io/) is a nonprofit that can act as the formal home of the US OSGeo Chapter. Randal Hale (rjhale@northrivergeographic.com) has been nominated by the founding group to act as spokesperson for now. Interested parties can email Randal or check out the http://wiki.osgeo.org/ page for updates on the formation of the new chapter.

2. B) GeoAmbassador of the Month

Dr. Claus Rinner

By Suchith Anand
GeoForAll

Dear Colleagues,

On behalf of the GeoForAll community, it is my great pleasure to honour Dr. Claus Rinner as our GeoAmbassador. Dr. Claus Rinner is a Professor and currently serves as Chair of the Department of Geography and Environmental Studies at Ryerson University in Toronto, Ontario, Canada. He holds a Bachelor's degree (1993) in Mathématiques appliquées et sciences sociales from Université Paul-Valéry Montpellier 3, France, a Master's degree (1996) in Applied Systems Science from the University of Osnabrück, Germany, and a PhD (1999) in Geography from the University of Bonn.

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Please refer to the appropriate person according to the following table:

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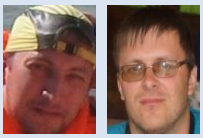
Co-editors 	Pavel Kikin, Senior Lecturer "Department of applied informatics and IT", Siberian State Univer. of Geosystems and Technologies Alexey Kolesnikov, Senior Lecturer "Department of cartography and GIS", Siberian State Univer. of Geosystems and Technologies it-technologies@yandex.ru	Russia, Mongolia, China, Japan, S. Korea, Vietnam, Thailand, Malaysia, Laos, Myanmar, Cambodia, Singapore, Brunei, Indonesia, Philippines, Turkmenistan, Uzbekistan, Tajikistan and Kyrgyzstan.
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	Paulo César Coronado Sánchez, Professor of computer sciences at Universidad Distrital Francisco José de Caldas, Head of GISEPROI and OSGeoLabUD research Group. Bogotá, Colombia paulocoronado@gmail.com	Translator and designer of the Spanish Edition

GeoForAll Themes

- **OpenCity Smart**
  - Chairs: Chris Pettit (Australia), Patrick Hogan (USA)
  - Mail list: http://lists.osgeo.org/cgi-bin/mailman/listinfo/geoforall-urbanscience
  - Website: http://wiki.osgeo.org/wiki/Opencitysmart
- **Teacher Training & School Education**
  - Chairs: Elżbieta Wołoszyńska-Wiśniewska (Poland), Nikos Lambrinos (Greece)
  - Mail list: geoforall-teachertraining@lists.osgeo.org
  - Website: http://wiki.osgeo.org/wiki/GeoForAll_TeacherTraining_SchoolEducation
- **CitizenScience**
  - Chairs: Peter Mooney (Ireland) and Maria Brovelli (Italy)
  - Mail list: https://lists.osgeo.org/cgi-bin/mailman/listinfo/geoforall-geocrowd
  - Website: http://wiki.osgeo.org/wiki/Geocrowdsourcing_CitizenScience_FOSS4G
- **AgriGIS**
  - Chairs: Didier Leibovici (U.K.) and Nobusuke Iwasaki (Japan)
  - Mail list: https://lists.osgeo.org/cgi-bin/mailman/listinfo/geoforall-agrigis
  - Website: http://wiki.osgeo.org/wiki/Agrigis

GeoForAll Regional Chairs and Contact Information

North America Region

Chairs: Helena Mitasova (USA), Charles Schweik (USA), Phillip Davis (USA) Subscribe at mail list http://lists.osgeo.org/cgi-bin/mailman/listinfo/geoforall-northamerica

Email: na.gfa.chair@osgeo.org

Iberoamerican Region

Chairs: Sergio Acosta y Lara (Uruguay) and Silvana Camboim (Brazil) and Antoni Pérez Navarro (Spain). Subscribe at mail list: https://lists.osgeo.org/mailman/listinfo/geoforall-iberoamerica

Email: geoforall-iberoamerica@lists.osgeo.org.

Africa Region

Chairs: Rania Elsayed Ibrahim (Egypt), Serena Coetzee (South Africa) and Bridget Fleming (South Africa) Subscribe at mail list http://lists.osgeo.org/cgi-bin/mailman/listinfo/geoforall-africa

Email: africa.gfa.chair@osgeo.org

Asia Region (including Australia)

Chairs: Tuong Thuy Vu (Malaysia/Vietnam) and Venkatesh Raghavan (Japan/India) Subscribe at maillist http://lists.osgeo.org/cgi-bin/mailman/listinfo/geoforall-asiaaustralia

Email: asia.gfa.chair@osgeo.org

Europe Region

Chairs: Maria Brovelli (Italy) and Peter Mooney (Ireland) Subscribe at mail list http://lists.osgeo.org/cgi-bin/mailman/listinfo/geoforall-europe

Email: eu.gfa.chair@osgeo.org

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After a brief stint as a software developer, he taught at the Institute for Geoinformatics at the University of Münster (2001-2003) and the Department of Geography and Programme in Planning at the University of Toronto (2003-2006), prior to joining Ryerson.

Within Geographic Information Science, Claus specializes in geographic visualization and multi-criteria decision analysis to support effective spatial decision-making. He develops map-centred, exploratory methods to evaluate phenomena such as public health and urban quality of life. Claus also works on Geographic Information Systems (GIS) concepts to support participatory planning, and investigates the decision support capabilities of GIS technologies such as location-based services and spatial data infrastructures. Most recently, Claus developed a keen interest in the collaborative and educational uses of 3D-printed terrain and cityscapes. He is co-author of a 2015 Springer monograph on Multicriteria Decision Analysis in Geographic Information Science and has published 30 peer-reviewed articles, which summarize externally-funded research. His h-index is currently at 24, with six publications exceeding 100 citations each. Claus teaches cartographic design and geovisualization, GIS, and spatial decision support. As the graduate program director of the Master of Spatial Analysis (MSA) from 2007 to 2015, he was also responsible for mentoring numerous graduate students through their practicum placements and major research papers. More details at https://www.ryerson.ca/~crinner/

Claus's contributions to open source go back to his student days. Please find below a summary of his excellent work and experiences that he kindly shared with us.

"As a Master's student in 1994-95, I developed an open-source (GNU GPL) data converter for Germany's cadastral data standard, which is still available at http://rinners.de/edbs/ .

My next contact with open-source software development was as a junior faculty member at the Institute for Geoinformatics, University of Muenster, Germany, from 2001-2003:

- We discussed how open-source software is the equivalent of repeatable experimentation in the sciences, thus allowing us to turn GIS research into a "science"

- I co-taught a course on geosoftware development, in which students developed a mapping tool from scratch using Java, demonstrating the benefit of seeing and manipulating code

Giving Geography students a peek into the GIS "black box" has remained a staple in my teaching.

At the University of Toronto, I introduced a Web mapping assignment into the cartography graduate course in Fall 2004, supported by a small internal grant to purchase Web server hardware. I also participated in the interdisciplinary project Open Source | Open Access (2005-06), addressing issues of both open-source GIS development and open access to geospatial information through funded undergraduate student research assistantships.

After getting settled at Ryerson from 2006 onwards, I connected with the local Toronto OpenStreetMap group and facilitated/co-hosted events with the OSM group, Ryerson students, and/or Geography alumni:

- First and second Canadian OSM developer events, http://gis.blog.ryerson.ca/2012/03/16/openstreetmap-developer-event/ and https://gis.blog.ryerson.ca/2013/03/09/reflections-on-openstreetmap/ , with public workshops given by OSM community members as well as Ryerson students

- Nepal post-earthquake mapping sessions, https://gis.blog.ryerson.ca/2015/05/04/notes-from-nepalquake-mapping-sessions-ryersonu-geography/

- Maptime Toronto meetup with OSM founder Steve Coast, http://maptime.io/toronto/event/2016/12/06/december-meetup/

I am increasingly integrating OSM and QGIS in teaching GIS, cartography, and decision support. E.g., our 2nd-year Bachelor's program GIScience course includes an assignment to edit OSM or contribute to another volunteered geographic information (VGI) initiative, as outlined at https://gis.blog.ryerson.ca/2015/02/25/ryerson-geographic-analysis-students-put-restaurants-airports-cities-and-cropland-on-the-map/ . Many graduate student geovisualization course projects are also based on open data and/or OSGeo software, see http://spatial.blog.ryerson.ca/tag/open-data/

Through my students, VGI and open data have also become a core research interest:

- My former PhD student Dr. Victoria Fast and I developed the concept of "VGI Systems" to more comprehensively explain the factors impacting the success or failure of VGI initiatives; open access publication at http://www.mdpi.com/2220-9964/3/4/1278

- I co-edited a special issue of the open-access URISA Journal titled "Mediating Open Data: Providers, Portals, and Platforms", with an article led by former undergrad student Edgar Baculi on "The Geospatial Contents of Municipal and Regional Open Data Catalogs in Canada", see http://www.urisa.org/resources/urisa-journal/

- Within the Canadian "Geothink" research partnership, I am currently working on three book chapters on different geospatial open data or VGI topics (all based on student work)

- I got keenly interested in 3D printing applications in Geography, specifically the collaborative and educational uses of 3D-printed terrain and cityscapes; the prints are usually based on open data (City of Toronto, Province of Ontario) and often prepared through QGIS, see e.g. http://gis.blog.ryerson.ca/2016/04/25/3d-printed-geographies-howto/

Another current research project goes back to open-source geospatial software development: We are actively developing a Location Analytics toolkit for QGIS. An early set of Python scripts is posted at https://github.com/ryersongeo/qgis_location_analytics . Ultimately, we are aiming to develop a QGIS plugin that includes service area delineation, geodemographic reporting, multi-criteria analysis, and interactive mapping of results. It will integrate functionality from MCDA4ArcMap, an open-source add-on to ArcMap that was downloaded nearly 1,900 times from http://mcda4arcmap.codeplex.com/ , yet isn't accessible to potential users who don't have an ArcGIS license available.

As Department Chair, one of my main concerns is to attract more high school students into Geography, as our graduates are in high demand in the workforce! I believe OSGeo software and open data can make a significant contribution to both student recruitment and education, although we still have a lot of work to do to establish Geography's reputation as an applied science and a professional field with outstanding career opportunities."

We are proud to honour Claus Rinner as our GeoAmbassador and we are extremely grateful for his contributions to expanding geoeducation opportunities for all.

Best wishes,

Suchith Anand

3. Events

Great initiative and example from colleagues at the Food and Agriculture Organization of the United Nations on providing access to interactive maps, satellite imagery and related spatial databases maintained by FAO and its partners. Through this website FAO facilitates multidisciplinary approaches to sustainable development and supports decision making in agriculture, forestry, fisheries and food security.
Maps, including those derived from satellite imagery, are effective communicational tools and play an important role in the work of various types of users:

Decision Makers: e.g. Sustainable development planners and humanitarian and emergency managers in need of quick, reliable and up to date user-friendly cartographic products as a basis for action and better plan and monitor their activities.

GIS Experts in need of exchanging consistent and updated geographical data.

Spatial Analysts in need of multidisciplinary data to perform preliminary geographical analysis and reliable forecasts to better set up appropriate interventions in vulnerable areas.

The FAO GeoNetwork allows to easily share spatial data among different FAO Units, other UN Agencies, NGO's and other institutions.

The FAO GeoNetwork site is powered by GeoNetwork open source. GeoNetwork opensource has been developed to connect spatial information communities and their data using a modern architecture, which is at the same time powerful and low cost, based on the principles of Free and Open Source Software (FOSS) and International and Open Standards for services and protocols (from ISO/TC211 and OGC).

Details at:
http://www.fao.org/geonetwork/srv/en/main.home

4. Conferences

Europe

April 2018

1. 8-13 April: European Geosciences Union General Assembly
Venue: Vienna, Austria

2. 17-20 April: GISRUK 2018 - 26th annual GIScience Research UK conference
Venue: University of Leicester, UK.

June 2018

3. 13-15 June: 21st International AGILE Conference, AGILE 2018 "Geospatial Technologies for All".
Venue: Lund, Sweden

July 2018

4. 28-30 July: State of the Map 2018.

Venue: Politecnico di Milano, Piazza Leonardo da Vinci, Milan, Lombardy, Italy.

October 2018

5. 1-5 October: ISPRS Com IV Symposium
Venue: Delft, The Netherlands

6. 9-11 October: 5th Open Source Geospatial Research and Education Symposium

Venue: University of Applied Sciences and Arts of Southern Switzerland (SUPSI)

North and Central America and the Caribbean

May 2018

7. 14-18 May: FOSS4G North America
St. Louis, Missouri, USA
Call for papers: Workshop submission deadline is January 15, 2018. Talk submission deadline is February 8, 2018.

June 2018

8. 6-9 June: MESCYT - XIV International Scientific Research Congress
Venue: Santo Domingo. Dominican Republic

Deadline for proposals is 15 April 2018

November 2018

9. 6-9 November: XVIII International Symposium of the Latin American Society of Remote Perception and Systems of Space Information.
Venue: Havana, Cuba
Contact: MSc. Ing. Pedro Luis García Pérez Presidente del Comité Organizador. (537) 836 34 47
pedroluis1664@gmail.com lgarcia@ch.unaicc.cu

Africa

April 2018

10. 17-19 April: 7th Digital Earth Summit "Digital Earth for Sustainable Development in Africa"
Venue: Faculty of Science, Chouaib Douakkali University El Jadida, Morocco.

August 2018

11. 27-28 August: FOSS4G 2018 Workshop
28-31 August: FOSS4G 2018: Main Conference
Venue: Dar es Salaam, Tanzania
The deadlines of the FOSS4G Academic Track in Dar Es Salaam have been changed in this way:
Abstract Submission deadline is 15 February 2018
Abstract acceptance notice is 15 March 2018
Early Bird Registration closes 15 May 2018
Camera ready paper for the Proceedings has to be submitted by 30 April 2018

September 2018

12. 1-2 September: FOSS4G 2018: Code Sprints and Community Events
Venue: Dar es Salaam, Tanzania

October 2018

13. 22-26 October: International Data Week 'Digital Frontiers of Global Science'
Venue: Gaborone, Botswana

5. Webinars

- Recording of webinar on "gvSIG Suite: Open Source Software for Geographic Information Management in Agriculture" is now available at https://blog.gvsig.org/2018/02/16/recording-of-webinar-on-gvsig-suite-open-source-software-for-geographic-information-management-in-agriculture-is-now-available/
- Open Course of Big Data for Smart Cities in Spanish http://www.tysmagazine.com/curso-gratuito-de-big-data-para-una-ciudad-inteligente/
- gvSIG Suite Solution for Geospatial Analysis and Crime Management https://blog.gvsig.org/2018/02/23/webinar-geoforall-iberoamerica-presentacion-gvsig-crime-solucion-de-la-suite-gvsig-para-analisis-geoespacial-y-gestion-del-delito/
- **Recording of 'Geostatistics with R and gvSIG' presentation at the 3rd gvSIG Festival available**
  The recording of the video of the '**Geostatistics with R and gvSIG**' presentation, given at the 3rd gvSIG Festival, is now available.
  In this video, you can watch how to manage R library from gvSIG Desktop to get interesting information through statistics.
- Please register for Open LSEF - A Common Language for Extracting Information from 3D Point Clouds on Apr 27, 2018 12:00 PM EDT at: https://attendee.gotowebinar.com/register/6393202008690747138

  Description:

  3D Point Clouds are becoming ubiquitous; people collect them with scanners, with drones, and with phones. However, collecting the point cloud is now the easy part of the process. Features need to be extracted and identified from the data to provide context. While many tools are being created to extract features from 3D point clouds, there is currently no agreed upon definitions of how these 3D features are to be defined. This greatly limits the ability to transfer information

between applications and utilize it in subsequent analyses. It can be frustrating to be a drafter (or Artificial Intelligence) trying to learn what curbs (or kerbs) look like if no one can agree whether flow line or back-of-curb is the defining feature. This GeoByte will present a new common language, OpenLSEF, that describes how features in 3D point clouds should be defined, by establishing definitions and terminology, products from providers can be standardized, designers can expect consistency, self-driving cars can share high-definition maps, and tool-makers can focus on ensuring extraction algorithms return expected results. OpenLSEF is a user-created initiative focusing on standardizing extraction definition in the AEC (architecture, engineering, and construction) field, as well as transmission, utilities, and BIM (building information management). These are living standards relating to the meaning of extracted data, as opposed to simply focusing on actual file format standards. As such, OpenLSEF is data-format agnostic and is meaningful whether you deal in DWG, DGN, or SHP files. The webinar will also include information regarding how to become involved in the Open LSEF Working groups.

6. Courses

- GRASS GIS course focused on working with imagery data (Modis and Sentinel 2) covering introduction into GRASS GIS, graphical modeling, Python scripting, and GRASS Temporal Framework. A new GRASS addon for downloading and importing Sentinel 2 products are also introduced in this course. Advanced topics like scripts parallelization, or WPS process creation are also explained.
- NASA/ESA training courses. For queries about the course, please refer to Prof. Stych (stych@natur.cuni.cz)
  Details of RUS at https://rus-training.eu/about-us

7. Training programs

GeoForAll educational materials have been transferred to our new web site. GeoForAll educational inventory system, a place to search and share educational materials

8. Key Research articles

- Charlie Schweik (cschweik@pubpol.umass.edu) for the FOSS4G Proceedings editorial team (Mohammed Zia, Andy Anderson, and Franz-Josef Behr)
  I'm pleased to report that we now have full academic proceedings and individual papers from the last five FOSS4G conferences [Nottingham, 2013; Portland, 2014; Seoul, 2015; Bonn, 2016; and Boston, 2017].
  The website is: https://scholarworks.umass.edu/foss4g/
  This system provides readership (download) statistics and distribution maps (see attached). For instance, as of today, across all volumes we already have a total of 3,409 full proceeding and individual paper downloads worldwide. Individual authors can see their individual download statistics by going to their individual paper entry. Scholarworks also feeds library database search engines.
  We hope that we can continue to publish FOSS4G Academic proceeding pre-prints, both global and regional events, through this system, to maintain a longterm repository of FOSS4G scholarship. Proceeding editors of future conferences: Please contact us to coordinate.
- Also can be found at https://www.osgeo.org/foundation-news/foss4g-conference-academic-proceedings-full-proceedings-individual-papers-available-online/

9. Funding opportunities, bids etc

- Especially for our African colleagues.
  Call for research proposals. More details in: http://www.codata.org/news/241/62/ICSU-NASAC-ISSC-call-for-pre-proposals-Pathways-towards-Sustainable-African-Urban-Development

10. New free and open software, open data, etc.

- From Alexander Zipf (zipf@uni-heidelberg.de)

In case you always wanted to use a free and open service API for routing, geocoding, isochrones or matrix calculation based on open data from OpenStreetMap using Python, your dream has come true.

This is of particular interest when teaching open source GIS tools and programming or geospatial App development.

HeiGIT has finally developed a pretty handy python API for all of you pythoniasts out there. This library makes requests to the openrouteservice API extremely simple.

With this you will be able to query the following services

with a couple of lines of python code.

- directions (route planning)
- matrix (distance/Time matrixes)
- geocoding
- isochrones (accessibility)

Find the sources on GitHub and install it via pip

- SARbian: The free and open SAR software suite

https://eo-college.org/sarbian/

- gvSIG Desktop 2.4, the new version of the open source Geographic Information System, is now available. You can access both the gvSIG Desktop 2.4 installable and portable versions from the download section of the project website here: http://www.gvsig.com/en/products/gvsig-desktop/downloads

A list of the updates can be viewed here: https://blog.gvsig.org/2018/02/21/gvsig-desktop-2-4-is-already-available/

Join the mailing list here: http://www.gvsig.com/en/community/mailing-lists

- The Horton Machine, new geoprocesses available for gvSIG 2.4

The "Horton Machine" plugin, formerly known as JGRASS, is now available to be installed on gvSIG 2.4. This plugin has a new toolbox with hundreds of different geoprocesses, added to the more than 350 geoprocesses included in gvSIG Desktop.

- Download the newest release of pycsw 2.2.0 at http://pycsw.org/download

- Plugin for gvSIG Desktop and gvSIG Mobile integration is now available

The plugin that allow us to integrate gvSIG Mobile and gvSIG Desktop is now available to be installed on gvSIG Desktop 2.4.

This plugin includes a new functionality that allows to generate the base cartographyfor gvSIG Mobile from a gvSIG Desktop View. In addition, we will be able to load a project made in gvSIG Mobile directly in gvSIG Desktop, including the elements created with a customized form, images, etc.

11. Free books, educational materials, etc.

- ESA new e-book on "EO Open Science and Innovation" edited by Christoph Aubrecht and Pierre-Philippe Mathieu

- Mapping and the Citizen Sensor edited by Giles Foody, Linda See, Steffen Fritz, Peter Mooney,

Ana-Maria Olteanu-Raimond, Cidália Costa Fonte and Vyron Antoniou, funded by a European Co-operation in Science and Technology (COST) Action and published by Ubiquity Press. The link to the free online version of the book is https://doi.org/10.5334/bbf although print versions are available to purchase.

- Free tutorials on "Working with Sentinel 2 Imagery on QGIS" that shows the complete procedure to download, represent and process Sentinel 2 images in QGIS at https://www.hatarilabs.com/ih-en/working-with-sentinel-2-imagery-on-qgis

- People from CODAN Action Project would like to share training material and other learning resources that were produced and prepared in 2017 as part of their capacity development activities. They will be adding more so keep watching!
  They only ask to know if they are useful and how we are using them or will be using them in our capacity development activities, and they ask to share with others!

Training slides

- Understanding Open Data - An Introduction.pptx
https://dgroups.org/?7w3sg6hm - 7.0MB
- Value of Open Data.pptx
https://dgroups.org/?yv8s7z2c - 4.0MB
- Discovering Open Data.pptx
https://dgroups.org/?b1f1y4km - 3.0MB
- Ethical and Responsible Use of Open Data.pptx
https://dgroups.org/?m64r3qsw - 3.0MB

Intellectual Property Rights _ Licensing.pptx
https://dgroups.org/?tb8qmamj - 10.0MB
Sources of Agriculture Data.pptx
https://dgroups.org/?9zjh0sy6 - 3.0MB

Other learning material:

- Creating Impact with Open Data and the importance of context.pptx
https://dgroups.org/?k53ggb4g - 4.0MB
- Open Data Standards_Weather data.pptx
https://dgroups.org/?6dnsan04 - 0.1MB
- Leveraging Weather Data for Agriculture.pptx
https://dgroups.org/?dt9zrdk7 - 5.0MB
- Making Data Talk: IFPRI
http://bit.ly/2EUyscU

Video learning resources:

- Facilitating Standards and Impact
http://bit.ly/2t3XRvd
- Publishing open data from an organisational point of view
http://bit.ly/2ESh6gt
- Making data talk: Reflecting on IFPRI's experiences in data visualization
http://bit.ly/2orQk4n

All video recordings

http://bit.ly/2spTeG8

Chipo Msengezi
Project Coordinator

- CEOS is the Committee on Earth Observation Satellites, coordinates civil spaceborne observations of the Earth. Participating agencies strive to address critical scientific questions and to harmonise satellite mission planning to address gaps and overlaps. CEOS and ESA have launched the EO handbook on 'Satellite Earth Observations in support of the SDGs' . The online version is at http://eohandbook.com/sdg/ You can also download it as PDF file from the same address.

12. Articles

Abbreviations

by **Nikos Lambrinos**, Chief Editor, and **Michael Finn**.

For those who would like to support this effort, please send any abbreviations to the Chief Editor (labrinos@eled.auth.gr).

3DEP: 3-D Elevation Program

AAG: Association of American Geographers

AGS: American Geographical Society

AM/FM: Automated Mapping/Facilities Management

ASPRS: American Society for Photogrammetry and Remote Sensing

AURIN: Australian Urban Research Infrastructure Network

BBSRC: Biotechnology and Biological Sciences Research Council

BIM: Building Information Modelling

CAADP: Comprehensive African Agricultural Development Programme

CAD: Computer Aided Design

CaGIS: Cartograhy and Geographic Information Society

CEGIS: Center of Excellence for Geospatial Information Science

CEOS: Committee on Earth Observation Satellites

CI: CyberInfrastructure

CLGE: The Council of European Geodetic Surveyors

CODATA: Committee on Data for Science and Technology

COGO: Coordinate geometry

CRS: Coordinate Reference System

CSA: Canadian Space Agency

CUDA: Compute Unified Device Architecture

DAAC: Distributed Active Archive Center (of NASA)

DEM: Digital Elevation Model

DSM: Digital Surface Models

DWG: Design file format

DXF: Drawing Interchange File

ECMWF: European Center for Medium range Weather Forecasting

EOS: Earth Observation Science

EOSDIS: Earth Observing System and Data Information System

EPA: Environmental Protection Agency

EPSG: European Petrol Survey Group (used in projection IDs)

ESA: European Space Agency

ESERO: European Space Education Resource Office

EUROGI: European Umbrella Organisation for Geographic Information

EuroSDR: European Spatial Data Research

FOSS: Free and Open Source Software

FOSS4G: Free and Open Source Software For Geospatial

GCP: Ground Control Point

GloFAS: Global Flood Awareness System

GNSS: Global Navigational Satellite System

GPS: Global Positioning System

GPX: GPS Exchange Format

GRASPgfs: Geospatial Resource for Agricultural Species and Pests and Pathogens with workflow integrated modeling to support Global Food Security

HOT: Humanitarian OpenStreetMap Team

HPC: high-performance computing

ICA: International Cartographic Association

ICSU-WDS: International Council for Science – World Data System

INSPIRE: Infrastructure for Spatial Information in Europe

ISPRS: International Society for Photogrammetry and Remote Sensing

JAXA: Japan Aerospace Exploration Agency

KML: Keyhole Markup Language

LiDAR: Light Detection and Ranging

LOC: Local Organizing Committee

LOD: Level Of Detail

MIL: Media and Information Literacy

MoU: Memorandum of Understanding

NAD: North American Datum

NCSA: National Center for Supercomputing Applications

NED: National Elevation Dataset

NEPAD: NEw Partnership for African Development

NGA: National Geospatial Intelligence Agency

NHD: National Hydrologic Dataset

NLCD: National Land Cover Dataset

NSDI: National Spatial Data Infrastructure

NSF: National Science Foundation

OER: Open Educational Resources

OGC: Open Geospatial Consortium

OSGeo: Open Source Geospatial Foundation

OSM: OpenStreetMap

OTB: Orfeo Tool Box

RCMRD: Regional Centre for Mapping of Resources for Development

RDA: Research Data Alliance

ROSHYDROMET: Russian Federal Service for Hydrometeorologyand Enviromental Monitoring

RUFORUM: Regional Universities Forum for capacity building in agriculture

SaaS: Software as a Service

SAR: Synthetic Aperture Radar

SDI: Spatial Data Infrastructure

SIGTE: The GIS and Remote Sensing Service of the University of Girona, Spain

SQL: Structured Query Language

STISA 2024: Science Technology Innovation Strategy for Africa

STSM: Short Term Scientific Missions

TIN: Triangulated Irregular Network

UAV: Unmanned Aerial Vehicle

UN-GGIM: United Nations Global Geospatial Information Management

USGS: U.S. Geological Survey

USGIF: United States Geospatial Intelligence Foundation

VGI: Volunteered Geographic Information

XSEDE: Extreme Science and Engineering Discovery Environment

WCS: Web Coverage Service

WFS: Web Feature Service

WGCapD: Working Group on Capacity Building and Data Democracy

WGS: World Geodetic System

WISERD: Wales Institute of Social & Economic Research, Data & Methods

WMO: World Meteorological Organization

WMS: Web Map Service

WMTS: Web Map Tiles Services

WOIS: Water Observation Information System

WPS: Web Processing Service

13. Scholarships for students and staff

- **Geospatial Technology Skills Competition**. Check out the website: http://www.geotechcenter.org/2018-geospatial-technology-skills-competition.html
  The GeoTech Center is pleased to announce the 2018 Undergraduate Geospatial Technology Skills Competition! The intent of the competition is to showcase the geospatial technology skills of U.S. undergraduate students. Competing students will create a project that utilizes geospatial technology to address a real-world problem. The student will then present the project and the resulting deliverables as a **Poster** that not only highlights their use of geospatial technology, but also demonstrates their communication and presentation skills. The winners will be awarded registration, travel and accommodations to the 2018 GeoEd Conference in Louisville, Kentucky. The winners will also present their posters at this conference. **Due April 20th at 1pm eastern**.

- In June 2017, TU Delft organised Urban Thinkers' Campus (UTC) on Higher Education for the New Urban Agenda. The aim of the meetings was to

explore how to integrate the UN-Habitat NEW URBAN AGENDA in higher education curricula.
For those interested, there is a preliminary report available both at the World Urban Campaign website http://www.worldurbancampaign.org/education-city-we-need-exploring-how-integrate-new-urban-agenda-higher-education-curriculums and at UTC website https://utctudelft.org/executive-summary/

- PostDoc position at Politecnico di Milano, Italy. Application deadline April 30th. For more information, go to https://www.polimi.it/en/faculty-and-staff/calls-and-competitions/call-for-msca-ef-master-class-2018-polimi/

15. Awards

- The Austrian Academy of Sciences through its Commission for GIScience is awarding the GIScience Prize named after Prof Waldo Tobler to a scientist having demonstrated outstanding and sustained contributions to the discipline worthy of inspiring young scientists in Geoinformatics and Geographic Information Science, and having accomplished significant advances in research and education.

  An external panel of peers unanimously recommended to award the 2018 prize to Prof Helena Mitasova (North Carolina State University).

  For more details go to:

  https://lists.osgeo.org/pipermail/grass-user/2018-April/078052.html

  https://gi-science.blogspot.de/2018/04/helena-mitasova-awarded-2018-waldo.html

  On behalf of GeoForAll community:
  Congratulations Helena, we are very proud of you.

17. Ideas / Information

To post your FOSS4G educational information go to http://www.osgeo.org/education. There you can find more educational activities posted by members of our community.FOSS4G is the annual global event of the Open Source Geospatial Foundation. It is the largest technical geospatial Open Source conference in the world. The FOSS4G conference focuses on Free and Open Source Software for Geospatial applications. In addition to high level technical talks four key domain are discussed every year to showcase the connection between free and open source software and communities from neighbouring domains. In 2018, the conference will take place in Dar es Salaam, Tanzania, on 29-30-31 August. The four thematic domains selected for this edition are: Urban; Coastal, Marine and the Environment; Widening Access and Humanitarian Mapping; Drones.

2. Contributions invited for Special Issue "Open Data for Open Cites (OD4OC): Reuse of Open Data through Spatial Analysis" that cover all aspects of the use of Open Data and geospatial analysis in fostering inclusive, resilient, open, and sustainable communities.

The explosive growth of cities and the rapid expansion of broadband and data are intersecting at a time when the world faces serious challenges to achieving more sustainable development. Sensors and digital devices generate huge amounts of data from which cities and governments can create indicators and learn new knowledge. Cities now have an important role to play in national and local open data initiatives. Data user communities are trying to tackle various urban challenges for many intermediaries that see open data as the key factor to improve their services. However, are cities ready to move forward in terms of open data? Are the current data user requirements taken into consideration in open data strategy? How are open data being used to make cities inclusive, safe, resilient and sustainable?

Invited papers may describe original work in any of the following areas, but not limited to:

Urban Analytics
Open data-driven initiatives for effective community collaboration
The use of Open Data in Smart sustainable cities
Frameworks for sustainable community engagement
Reuse of open geographic data
Impact of Open Data in cities
Impact of Open Geographic Data

3. NACIS Student Map and Poster Competition (from GIS Lounge)

Students who'd like to display their works at NACIS 2018 should register for the Student Map and Poster Competition. We encourage all students to submit their maps and cartography-related technical/research posters for a chance at one of two $500 prizes!
There are two competition categories: cartographic design quality and cartographic research quality.
There is no entry fee. All entrants will be displayed in the Map Gallery, and the winners will be selected by a ballot of all meeting attendees.

Visit: NACIS Student Map and Poster Competition

Deadline: Entries for the 2018 competition must be received by **May 31st, 2018**.
No digital upload or mailing of your map is necessary; to compete, your map must be present at the NACIS Annual Meeting in Norfolk in 2018.

NACIS Student Dynamic Map Competition

NACIS recognizes the importance of dynamic mapping in cartography. We are sponsoring the 19th Annual Student Dynamic Map Competition to promote excellence and innovation in interactive cartography.

There are two competition categories: individual projects and group projects.
Each map will be judged by a panel of three professional cartographers. The winners will be announced (and demonstrated) during the 2018 NACIS annual meeting in Norfolk.

Visit: NACIS Student Dynamic Map Competition

Deadline: Entries for the 2017-18 competition must be received by **May 31st, 2018**.

4. 2018 Ristow Prize

The Ristow Prize encourages young scholars in the field of the history of cartography by recognizing outstanding papers. The competition is open to full- or part-time undergraduate, graduate and first-year post-doctoral students attending accredited colleges and universities anywhere in the world. The winner of the best paper submitted will receive a cash award of $1000, a one-year membership in the Washington Map Society, and publication of the work in The Portolan, the Society's journal. Submissions are due **June 1, 2018**.

Comprehensive information, including a list of prior winners of the Prize, may be found on the Washington Map Society's website at www.washmapsociety.org

5. CARTOGRAPHICA - The International Journal for Geographic Information and Geovisualization
University of Toronto Press

Special Issue: Discrete Global Grid Systems (DGGS) Download Call for Papers: http://www.utpjournals.press/journals/cart/cfp
With the advent of Geospatial Information Science and Technology (GIS&T) and the explosive growth in both the variety and volume of geospatial resources, the role of Discrete Global Grid Systems (DGGS) as an "information grid" is more and more recognized. Based on a theory first introduced thousands of years ago by Plato and Archimedes and the outcomes of a formal development that began in the 1980s, DGGSs have evolved in both the theory and practice to the point that the Open Geospatial Consortium (OGC)

adopted them last October as a new standard "that improves the way information is referenced to the earth."

The editorial team of Cartographica invites paper submissions of original research from the communities focusing on the development and application of Discrete Global Grid Systems (DGGS). Topics include but not limited to:

Cartographical aspects of DGGSs,
Advances in Geovisualization using DGGSs,
Modelling spatio-temporal data using DGGSs,
Interoperability within and between different DGGS implementations,
Evaluation and comparative analysis of DGGSs,
Query processing and indexing mechanisms of DGGSs resources,
Applications of DGGSs in various domains, and/or
Digital Earth and DGGS Software tools.

The papers will be peer-reviewed. Accepted papers will be published in a special issue of the Cartographica in Spring 2019.
Important Dates:
Paper Submission: May 1, 2018
Decisions to Authors: July 15, 2018
Revised Paper Submission: September 1, 2018
Publication of Special Issue: Spring 2019

6. Canada: Smart Cities Challenge. The Smart Cities Challenge is a pan-Canadian competition open to communities of all sizes, including municipalities, regional governments and Indigenous communities (First Nations, Métis and Inuit). The Challenge encourages communities to adopt a smart cities approach to improve the lives of their residents through innovation, data and connected technology.

One prize of up to $50 million open to all communities, regardless of population;
Two prizes of up to $10 million open to all communities with populations under 500,000 people; and
One prize of up to $5 million open to all communities with populations under 30,000 people.
Infrastructure Canada is engaging Indigenous leaders, communities and organizations to finalize the design of a competition specific to Indigenous communities that will reflect their unique realities and issues. Indigenous communities are also eligible to compete for all the prizes in the current competition. Details at http://www.infrastructure.gc.ca/plan/cities-villes-eng.html

7. From Asha Law | Program Assistant, CODATA | http://www.codata.org

E-Mail: asha@codata.org

With this email, I would like to inform you that as part of the 5-year "Leading Integrated Research for Agenda 2030 in Africa" (LIRA 2030 Africa) programme, the International Council for Science (ICSU), in partnership with the Network of African Science Academies (NASAC) and the International Social Science Council (ISSC) will support up to 11 collaborative research projects across Africa (to the value of up to 90,000 Euro each over two years) that will explore integrated approaches for sustainable urban development in Africa.

We are inviting African early career scientists to submit collaborative research proposals that apply a systems approach to analyzing urban processes in Africa. These projects are expected to examine the inherent complexity of cities, to explore the interconnections, trade-offs, and synergies between

different dimensions of urban systems, e.g. governance, human and social capital, environment, economic systems, and infrastructure.

The call for pre-proposals aims to identify collaborative research projects in Africa that bring together African early career scientists from different scientific disciplines and key stakeholders (e.g. local authorities, policy makers, built environment professionals, the private sector, civil society and citizens) in research co-design and co-production.

Applicants should have no more than 10 years work experience following their PhDs or equivalent research experience.

The deadline for pre-proposal submission is **14 May 2018** (18:00 CET). Submission of pre-proposals and relevant documents may only be made using the online application form, following instructions provided in the call for pre-proposals.

More information about call can be found here http://bit.ly/2FeJA4g

18. Social Contribution

1. Hourly Updates for new Openrouteservice for Disaster Management improves Support for Humanitarian Logistics:

The Humanitarian OpenStreetMap Team (HOT) provides immediate support for disaster or humanitarian responses by coordinating and activating a global network of mappers that contribute up-to-date geodata to the OSM database. For example, after the Nepal earthquake in 2015, volunteers added up to 800 km to the OSM street network per hour! This information could successfully support post-disaster humanitarian logistics on the ground.

To consider always the latest OSM data available, the Openrouteservice for Disaster Management by HeiGIT now provides **updates more frequently**. The entire African continent, South America, and South Asia are available as stable instances with **hourly update intervals**. Papua New Guinea, which was recently hit by a severe earthquake, is furthermore currently integrated with an even higher **update interval of 15 minutes** to support the direct disaster response. In case of major disasters which affect regions not covered by our service, new areas can be added by our team on request.

The Real-time OSM we introduced recently is used to access up-to-date OSM extracts on which basis the routing graphs are recalculated. Have a look at the github repo to get more insights on real-time OSM and test our service at disaster.openrouteservice.org.

HeiGIT is supported by the Klaus Tschira Foundation, Heidelberg.