Volume 4, No. 11 November 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/)

- By Suchith Anand,

  Dear colleagues,

Science and Education Ministers from some African countries, over 85 Vice Chancellors from universities across Africa, as well as key scientists from across the world came together last week (22-26 October 2018) in Nairobi, Kenya, as part of the Sixth African Higher Education Week and the RUFORUM Biennial Conference for discussing ideas for "Aligning African Universities to accelerate attainment of Africa's Agenda 2063." These meetings were hosted by the Government of Kenya through the Ministry of Education and 12 RUFORUM member universities in Kenya.

I was invited as lead speaker to address on the topic of "Harnessing the digital potential to drive higher education transformation in Africa." I used the opportunity to share ideas on GeoForAll and requested all Vice Chancellors and colleagues to contribute ideas for enabling the Right to Benefit from Scientific Progress for everyone through Open Principles in Science and Education. We need to take urgent steps to reduce the digital divide and enable opportunities for everyone to benefit from digital economy opportunities.

3. Events

- Read summary reports from FOSS4G 2018 in Dar el Salaam, Tanzania.

https://www.hotosm.org/updates/hot-summit-at-foss4g-2018-combining-communities-in-dar-es-salaam/

https://geoawesomeness.com/foss4g-2018-overview/

HOT Summit 2018

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

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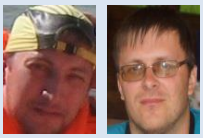
Co-editors 	Pavel Kikin, Senior Lecturer "Department of applied informatics and IT", Siberian State Univer. of Geosystems and Technologies Alexey Kolesnikov, Senior Lecturer "Department of cartography and GIS", Siberian State Univer. of Geosystems and Technologies it-technologies@yandex.ru	Russia, Mongolia, 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: Msilikale Msilanga (Tanzania), 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

4. Conferences

Europe

February 2018

1. 20-22 February: FOSS4G-IT 2019.
Venue: University of Padua, Padua, Italy
Email: foss4git2019@dicea.unipd.it

North and Central America and the Caribbean

November 2018

2. 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

3. 9 November: North Carolina Geography Annual Meeting
North Carolina Central University, Durham, North Carolina, USA.

4. 9-10 November: Seattle GNU/Linux Conference
Venue: Seattle, Washington, USA.

January 2019

5. 27-29 January: Geospatial Software Institute (GSI). Workshop 3: Strategic Plan and Governance of GSI
Venue: Annapolis, MD, USA

February 2019

6. 27 February-1 March: North Carolina GIS Conference (NCGIS)
Venue: Benton Convention Center, Winston-Salem, North Carolina, USA.

April 2019

7. 2-4 April: RDA 13th (P13) Plenary Meeting
Venue: Loews Hotel - Philadelphia, Pennsylvania, USA

8. 3-7 April: AAG Annual Meeting
Venue: Washington, DC, USA.

South America

July 2019

9. 1-5 July: XVII Biennial The International Association for the Study of the Commons (IASC) Conference
Venue: Lima, Peru.

Africa

November 2018

10. 5-8 November: SciData Con-IDW 2018
International Data Week
Session Title: Sustainable Development Goals (SDG) Data at the Subnational Level
Venue: Gaborone, Botswana

Asia

December 2018

11. 2-5 December: FOSS4G: ASIA "Open Source for Sustainable Development"
Venue: University of Moratuwa, Sri Lanka.

Oceania

November 2018

12. 20-23 November: FOSS4G – SotM Oceania
Venue: University of Melbourne, in the Old Arts Building, Melbourne, Australia

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 publications

An interesting paper by Maria Antonia Brovelli and Giorgio Zamboni:

A New Method for the Assessment of Spatial Accuracy and Completeness of OpenStreetMap Building Footprints

You can find it at https://www.mdpi.com/2220-9964/7/8/289

11. Free books, educational materials, etc.

- The Open Revolution: Rewriting the Rules of the Information Age
  by Rufus Pollock
  In this urgent and provocative book, Rufus Pollock shows that we must make a choice between making information Open, shared by all, or making it Closed, exclusively owned and controlled, and how today's Closed digital economy is the source of problems ranging from growing inequality, to unaffordable medicines, to the power of a handful of tech monopolies to control how we think and vote. Choosing Open is the path to a more equitable, innovative, and profitable future for all.
  You can download the book from Book details at https://openrevolution.net/media/open-revolution.pdf

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

GODAN: Global Open Data for Agriculture and Nutrition

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

GSoC: Google Summer of Code

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

16. Websites

1. The Coalition for Publishing Data in the Earth and Space Sciences (COPDESS) connects Earth and space science publishers and data facilities to help translate the aspirations of open, available, and useful data from policy into practice. COPDESS has developed a statement of commitment, now signed by most leading publishers and repositories, and provides a directory of repositories for publishers and recommended best practices around data and identifiers.

COPDESS was formed at a meeting in October 2014 and provides an organizational framework for Earth and space science publishers and data facilities to jointly implement and promote common policies and procedures for the publication and citation of data across Earth Science journals.

2. Please take a look at http://www.geoict.org which is the website of Geo-ICT Project.

This project is about improving the quality of higher education and research environment in geospatial and ICT capacities, and strengthening the role and relevance of these sectors in the development of the society in Tanzania.

Partners:

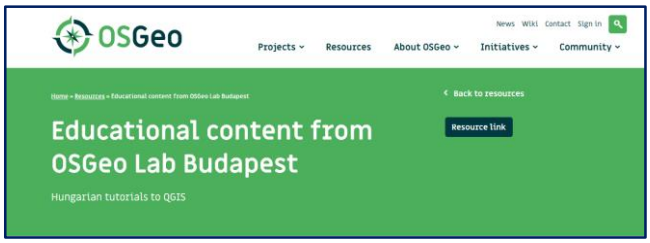
The project is a collaboration between University of Dar es Salaam (UDSM), Ardhi University (ARU), State University of Zanzibar (SUZA), Sokoine University of Argiculture (SUA), and University of Turku (UTU). The funding is from the Ministry for Foreign Affairs of Finland through HEI-ICI programme.

17. Ideas / Information

1. 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. Dear colleagues, GeoForAll has moved to a new website, but the migration of the lab info to new website is still not complete.

We have 125 labs listed in the table at http://wiki.osgeo.org/wiki/Edu_current_initiatives#sortable_table_id_0

Many of these labs are not listed in the new website. Contact persons need to create their own OSGeo id for this. Please go to https://id.osgeo.org/ldap/create

Once you create your OSGeoid, you can login to the OSGeo website and update/edit your GeoForAll lab/node info.

For all new GeoForAll labs/nodes, from now they will need to submit their details at https://www.osgeo.org/initiatives/geo-for-all/lab-submission/

3. The National Science Foundation (NSF) has funded a project (http://gsi.cigi.illinois.edu) to conceptualize a national Geospatial Software Institute (GSI) as a long-term hub of excellence in software infrastructure for serving diverse research and education communities. To forward the strong momentum gained from two successful workshops, the third workshop will take place in the Washington, DC, area on January 27-29, 2019. January 27th is intended for an ice-breaking event on the evening so that most participants will be ready for the morning program on January 28th. Dr. Manish Parashar, the Director of the NSF's Office of Advanced Cyberinfrastructure (OAC), will give the opening keynote on the morning of January 28th. We plan to wrap up the workshop by 1pm, EDT on January 29th.

4. An announcement from GeoForAll IberoAmerica (from SERGIO ACOSTAYLARA <sergio.acostaylara@mtop.gub.uy>)

GeoForAll Iberoamérica (G4A-Ib) continues to grow:

- we have 15 members from 8 different countries right now in the wiki (https://wiki.osgeo.org/wiki/GeoForAll_Iberoam%C3%A9rica) and others to be added shortly (still information missing)
- we are arranging future collaborations with other initiatives (GBIF, EO4GEO)
- we welcome collaboration with other Regional/Thematic groups from GeoForAll
- we are organizing our first students' competition with OSGeo's support (see, in Spanish, https://siglibreuruguay.wordpress.com/2018/06/14/premio-geoforall-iberoamerica-y-osgeo/)
- we have done a series of webinars (for example: https://www.youtube.com/playlist?list=PLtoCaX0XUK-7VmHiaVkBri480immm5jBS) and we plan to do more in the future
- we are part of the Editorial Board of the GeoForAll newsletter making possible to have it translated to Spanish

If you want to join, you can do it through the mailing list:

https://lists.osgeo.org/cgi-bin/mailman/listinfo/geoforall-iberoamerica, or writing to us in this global one. We encourage you to share your ideas and opinions. We accept non-Spanish speaking members, but it will be good if they are from Iberoamérica (South America, Central America, Mexico and the Caribbean, Spain and Portugal).

5. Special Issue "State-of-the-Art in Spatial Information Science"

A special issue of ISPRS International Journal of Geo-Information (ISSN 2220-9964).

Deadline for manuscript submissions: 1 May 2019

More information at https://www.mdpi.com/journal/ijgi/special_issues/ISPRS_2020_Nice

You can read many interesting information.

6. Special Issue "Earth Observation Data Cubes" – Call for papers

This Special Issue is consequently aiming to cover the most recent advances in EODC developments and implementations and welcomes contributions with respect to (but without being restricted to):

- Methods for generating Analysis Ready Data for both optical and SAR imagery
- Interoperability challenges between EO Data Cubes
- Algorithms for generating decision-ready products
- Data fusion techniques in EO Data Cubes
- Data mining using Machine Learning, Deep Learning, etc.
- Data quality, reliability, etc.
- Cost/Benefits analysis of EO Data Cubes
- Thematic applications (e.g. biodiversity, climate, health, natural hazards, etc.) using EO Data Cubes
- New innovative tools and solutions to work with EO Data Cubes
- Use of high to very-high resolution EO data
- Integration of in-situ observations
- Local, national, regional implementations
- Cloud-based computing
- Architecture design of EO Data Cubes (HPC, Distributed Computing, Super Computers)
- Capacity building and training
- Support to policy framework such as the Sustainable Development Goals, the Paris agreement, Aichi targets, or Water Framework Directive
- Links with initiatives like Copernicus or the Global Earth Observation System of Systems (GEOSS).

Guest Editors:

Dr. Gregory Giuliani (University of Geneva & GRID/Geneva)

Dr. Brian Killough (NASA/CEOS)

Dr. Stuart Minchin (Geoscience Australia)

Prof. Dr. Gilberto Camara (Group on Earth Observations)

Important dates:

- September 1, 2018: Launch of the Call for Papers
- December 31, 2018: Deadline for abstract submission (800-word) to guest editors
- January 15, 2018: Notification of abstract acceptance and full paper submission invitation
- April 30, 2019: Deadline for submission
- June 30, 2019: Revision/rejection notification
- October 31, 2019: Paper acceptance notification

More information & submission: https://www.mdpi.com/journal/data/special_issues/EODC

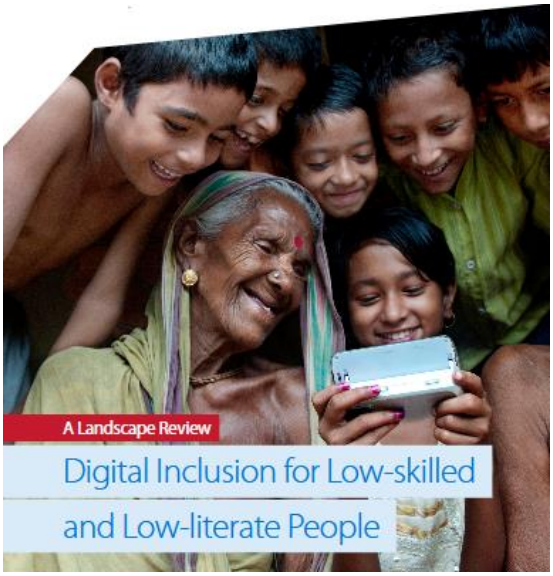
7. The **Enabling FAIR project** is funded by the Arnold Foundation (comparable to the Gates Foundation; details: https://en.wikipedia.org/wiki/Laura_and_John_Arnold_Foundation) and managed by AGU, the American Geophysical Union (OSGeo has a MOU with AGU; details: https://www.osgeo.org/foundation-news/osgeo-and-agu-sign-a-memorandum-of-understanding/). The project goal is to create an initial critical mass of researchers, research institutes and organisations, publishers, data repositories, and funding agencies to establish the FAIR principles (Findable, Accessible, Interoperable, Reusable) as best practices in the (Geo-)Sciences. The FAIR principles are compatible with the paradigm of Open Science (including Open Source, Open Data, and Open Access). FAIR can be applied to provide transparency, especially for cases where access to data is limited to

small communities (instead of open data / open access) for reasons like confidentially or protection of personal rights.

8. About people with low literacy level and low technical skills.

In a rapidly digitising world, people who cannot read or write face new forms of marginalisation. On top of confronting disadvantages in the physical world, illiterate people—currently 10 percent of the world's population—have difficulties participating in digital realms and accessing services that can strengthen livelihoods and enlarge learning opportunities.

Yet this exclusion is avoidable. Carefully designed digital solutions can help people—even those with very low literacy levels and limited technology skills—navigate digital spaces and benefit from relevant applications, such as those targeting farmers or connecting users to health services.



UNESCO developed the guidelines over a two-year period, drawing on a landscape review of digital inclusion strategies for low-skilled and low-literate people and a set of fourteen case studies. The guidelines reflect the views of an international expert group and were further refined based on feedback from public input.

Details at https://en.unesco.org/themes/literacy-all/pearson-initiative/guidelines

United Nations Educational, Scientific and Cultural Organization

9. We are pleased to welcome Victor Sunday and colleagues at UniqueMappersTeam (UMT), University of Port Harcourt, to the GeoForAll movement. They are doing a lot of work such as mapping of University of Port Harcourt and Satellite community on the globally accessible web map of OpenStreetMap, Training of students and immediate community on the use of QGIS and mobile mapping applications, Reaching out to universities and high schools to establish and train Youthmappers chapters, Engage team members and students in field work and mapping contest using open source geospatial Technology etc. Details at http://uniquemappers.checkam.info/index.php