Volume 2, No. 8 August 2016











Table of Contents

Editorial 1
Editorial Board 2
1. Activities 1
2. A) Lab of the month 4
B) GeoAmbassador 5
3. Events
4. Conferences 8
5. Webinars 9
6. Courses 9
7. Training programs 10
8. Key research publications
9. Funding opportunities
10. New free and open software, open data 10
11. Free Books 11
12. Articles 12
13. Scholarships for students and staff
14. Exchange programs for students and staff
15. Awards
16. Web sites
17. Ideas 13
19 Social contribution

Be part of "Geo for All"

Editorial



Nikos Lambrinos Chief Editor Dept. of Primary Education Aristotle Univ. of Thessaloniki Greece

Dear Members of the Network, Dear readers of the Newsletter,

I would like to remind you that everyone can send an article to the Chief Editor to be published in the Newsletter. The article might be about a new book, a new free software, or about new collaborations and activities among members of the network.

Also, you can send to the local coeditors any information you think might interest other members. The information might be about webinars, conferences, scientific meetings, etc.

Please keep your article up to 1000 words. You can add photos and don't forget to add your full details under your name.

Finally, if you are interested in helping our Newsletter, we are looking for a volunteer to edit (along with Suchith Anand and Nikos Lambrinos) the monthly article of GeoAmbassador.

If you are interested please send an email to Nikos Lambrinos (labrinos@eled.auth.gr) and Suchith Anand

(Suchith.Anand@nottigham.ac.uk) and we will send you more information.

Best wishes

Nikos Lambrinos

1. Activities of the Network

Ottawa, Ontario, OSGeo Meetup

Group meets on the third Thursd

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/OttawaO
SGeo/)









nvoudris@gmail.com





Editorial Board			
Please refer to the appropriate person according to the following table:			
Chief Editor	Nikos Lambrinos, Associate Professor, Dept. of Primary Education, Aristotle University of Thessaloniki, Greece. President of the Hellenic digital earth Centre of Excellence labrinos@eled.auth.gr	Oceania	
Co-editor	Rizwan Bulbul, Assistant Professor of GIScience Head of Geospatial Research and Education Lab Department of Space Science, Institute of Space Technology, Islamabad, Pakistan bulbul@grel.ist.edu.pk	India, Sri Lanka, Pakistan, Afghanistan, Nepal, Burma, Iran, Iraq, Jordan, Syria, Israel, Lebanon, Turkey, Saudi Arabia, Oman, Yemen, United Arab Emirates, Kuwait and Islands of S. Pacific.	
Co-editors I a series of the control of the contro	Pavel Kikin, Senior Lecturer "Department of applied informatics and IT", Siberian State University of Geosystems and Technologies Alexey Kolesnikov, Senior Lecturer "Department of cartography and GIS", Siberian State University 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.	
Co-editor	Rania Elsayed, Computers & Information Researcher, Division of Scientific Training & Continuous Studies, National Authority for Remote Sensing & Space Sciences, Cairo, Egypt. ranyaalsayed@gmail.com	Africa	
Co-editor	Elżbieta Wołoszyńska-Wiśniewska (Ela), Head of Education Unit UNEP/GRID-Warsaw Centre ela@gridw.pl	Scandinavian countries, Denmark, Germany, Belgium, The Netherlands, Poland, Estonia, Latvia, Lithuania, Belarus, Ukraine, Czech Republic, Slovakia.	
Co-editor	Antoni Perez Navaro, Associate Professor at Universitat Oberta de Catalunya (UOC) Computer Sciences and Multimedia Department aperezn@uoc.edu	Portugal, Spain, France, U.K., Ireland, Iceland, Luxemburg, Italy, Switzerland, Austria, Hungary, The Balkans.	
Co-editor	Emma Strong, GIS Coordinator with Southern Mississippi Planning and Development District eestrong118@gmail.com	North and Central America	
Co-editor	Sergio Acosta Y Lara, Departamento de Geomática Dirección, Nacional de Topografía, Ministerio de Transporte y Obras Públicas, URUGUAY sergio.acostaylara@mtop.gub.uy	South America	
Production Designer	Nikos Voudrislis, Principal of the 1 st Primary School of Asvestochori, Thessaloniki, Greece, MSc, PhD candidate in geography education.	Design and final formation of the newsletter	











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

South America Region

Chairs: Sergio Acosta y Lara (Uruguay) and Silvana Camboim (Brazil) Subscribe at mail list

http://lists.osgeo.org/cgi-

bin/mailman/listinfo/geoforall-southamerica

Email: sa.gfa.chair@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/cgibin/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/cgibin/mailman/listinfo/geoforall-europe

Email: eu.gfa.chair@osgeo.org

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: <u>geoforall-teachertraining@lists.</u> osgeo.org
- Website:

http://wiki.osgeo.org/wiki/GeoForAll TeacherTraining SchoolEducation

- GeoForAll (GeoParaTodos) Themes in Spanish
- ➤ Chairs: Sergio Acosta y Lara (Uruguay), Antoni Pérez Navarro (Spain)
- ➤ Mail list: Spanish: <u>geoforall-spanish@</u> lists.osgeo.org
- ➤ Website:

http://wiki.osgeo.org/wiki/GeoForAll Spanish

- 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











2. A) Lab of the Month

Open Source **Geospatial** Lab, **Department of Geodesy and Surveying** the **Budapest** University Technology and Economics, Hungary

By Suchith Anand



Suchith Anand, **Nottingham Geospatial** Institute, University of Nottingham, UK

Dear Geo4All Colleagues,

It is my great pleasure to introduce our colleagues at colleagues at the Open Source Geospatial Lab of the Department of Geodesy and Surveying at the Budapest University of Technology and Economics, Hungary, as our "Geo4All" lab of the month. The Budapest University of Technology and Economics

(BME), is the most significant University of Technology in Hungary and is considered the world's oldest Institute of Technology which has university rank and structure. It was founded in 1782 and the first institute in Europe to train engineers at university level [1]. More than 110 departments and institutes operate within the structure of eight faculties. About 1100 lecturers, 400 researchers and other degree holders, and numerous invited lecturers and expert specialists participate in education and research at the BME. The BME issues about 70% of Hungary's engineering degrees, professors/researchers of the university are members of the Hungarian Academy of Sciences [2][3].

The OSGeo lab is run by the Department of Geodesy and Surveying and led by Dr. Zoltán Siki. The members of the lab are Dr. Szabolcs Rózsa, Dr. ZitaUltmann, Ottó Deák, Dr. Csaba Égető, Dr. Bence Takács, and Dr. Tamás Tuchband but draws heavily on interactions with other research groups and partners within the University, nationally, and internationally.

They offer a range of bespoke courses for OSGEO education. Hungarian training courses are offered in QGIS, GRASS GIS, MapServer, OpenLayers, SpatialLite,

and PostGIS. Their degree programs make use of OSGEO software and tools for data collection, storage, and analysis. Their graduates receive a solid grounding in Open Source tools and their applications. Further details on their education programs can be found on their website at http://www.agt.bme.hu/osgeolab/index.php?page=tr aining&lang=en





















The Lab has also been active in presenting their research at other wider events. For example, it was represented at the 13th Geospatial Information & Technology Association conference hosted by the Hungarian GITA organisation where visitors were able to receive additional information about our OSGeo Lab Budapest.



The OSGEO Lab at Budapest is involved in a number of major international and national research projects. Their team works on further developments of open source software, search/fix bugs, and maintain the Hungarian localizations (especially QGIS). They also provide software and spatial expertise to the solutions of engineering problems using Open Source

tools, software, and standards. The Geo for All lab in Budapest University of Technology and Economics welcomes collaborations from all interested and for making contributions to the wider society.

On behalf of the Geo4All community, we thank Zoltán Siki and all colleagues at the Budapest lab for their contributions to the Geo4All initiative and look forward to working and building more collaborations with all interested on this education mission.

Best wishes,

Suchith Anand

[1]http://www.moveonnet.eu/directory/institution?id=HUBUDAPES02

[2]https://en.wikipedia.org/wiki/Budapest University of Technology and Economics

[3] http://www.bme.hu/?language=en

B) GeoAmbassador of the Month

Professor Silvana Philippi Camboim

Dear colleagues,

It is my great pleasure to introduce Professor Silvana Philippi Camboim as our GeoAmbassador.

Dr Silvana Comboim is Faculty at the Department of Geomatics at the Federal University of Paraná – UFPR, Brazil. She serves currently as the Chair of the Commission of Open Source Geospatial Technologies of the International Cartographic Association. She is the co-chair of "Geo for All" South America and established the first Open Source Geospatial Lab in South America in the Federal University of Parana in 2012.

Silvana has strong research background in Geospatial Science, SDI, and GI standards. Previously she was working at the Brazilian National Mapping Agency before moving to Federal University of Paraná as a professor at the Geomatics Department. She also coordinates the Standards Workgroup of the Brazilian NSDI (INDE) and has a strong team and action plan in











place for building this initiative for Brazil and South America.



Dr. Silvana Philippi Camboim (Universidade Federal de Paraná, Brazil)

Silvana is a true global citizen who has travelled around the world working for expanding opportunities for geospatial education for all. Silvana has been a great colleague for me at the International Cartographic Association (ICA) and the Open Source Geospatial Foundation (OSGeo). It is great pleasure that Silvana has succeeded me as the Chair of the ICA Commission on Geospatial Technologies. I had the pleasure to work closely with Silvana during my time as chair of the commission, and I strongly believe that Silvana will build upon the work that we have done and take this to a higher level.

Silvana was the leading force who took the initiative to establish the first OSGeo lab in South America at the Federal University of Parana, Brazil. The team of Open Geospatial Lab at UFPR comprise of Prof. Dr. Claudia Robbi Sluter, Prof. Dr. Luciene S. Delazari, Prof. Dr. Maria Cecilia B. Brandalize, and Prof. Dr. Silvana Philippi Camboim. Details at http://www.labgeolivre.ufpr.br/?lang=en

I first met Silvana when she visited me at the University of Nottingham during her UK visit few years back. It was then we discussed initial ideas to establish the first OSGeo lab in South America and expand our collaborations. Her dedication and focus for expanding geoeducation opportunities in Brazil and globally has always inspired me.

As part of the International Map Year, Silvana and many colleagues in Brazil (Angelica Carvalho Di Maio, Luis Augusto Koenig Veiga, Juliana Magalhães Menezes, Marli Cigagna, Maria Cecília Bonato Bradalize, Raul Margues P. Friedman) contributed to an Olympics of Cartography organised in Brazil, with almost 700 secondary schools distributed in the whole country. An Olympiad is a challenge, and challenges are incentives to improve the academic performance of students who can be awakened, in this case, to the study of spatial representation and the use of maps. The Ist Brazilian Cartographic Olympiad (OBRAC) has national coverage and was focused on high school students, aged between 14 and 18 years, from public and private schools. Among the objectives of the event stands out: stimulating school interest in science, especially in mapping science; provide teachers with knowledge and tools for dynamic participatory teaching areas covering the cartographic content; providing socialization of teachers and students through group activities; and foster the training of human resources to work in the field of cartography and geotechnologies.

The project for the first Brazilian Cartographic Olympiad meets a worldwide celebration, the International Map year 2015/16, which aims to provide opportunities to engage people in art, science, and technology of maps' construction and use. The map of participants can be accessed at http://www.olimpiadadecartografia.uff.br/index.php/mapa and more information can be found in English at http://www.icc2015.org/brazilian-cartographic-olympiad.html

Silvana has already made a great start for this new term of the commission with the successful organization of ICC workshop on Spatial data infrastructures, standards, open source, and open data for geospatial (SDI-Open 2015) jointly organized by the ICA Commission on Geoinformation Infrastructures and Standards, the Commission on Open Source Geospatial Technologies, Open Source Geospatal Foundation (OSGeo), and the Open Geospatial Consortium (OGC) on 20 and 21 August 2014 at Brazilian Institute of Geography and Statistics (IBGE) in Rio de Janeiro, and the Conference itself











http://www.icc2015.org was a great opportunity to strengthen the "Geo for All" initiative and to reinforce the key projects and research links for the future.

I had the opportunity of participating in the NSDI conference and meetings in Brasília, Brazil in May 2014. I would like to thank the Ministry of Planning, Government of Brazil for organising this excellent event and also for their kind invitation for keynote presentation where I shared the developments in Open Geospatial Science and Applications and its importance for widening education opportunities, new jobs creation, and innovation ecosystems in Geoservices. It was also a good opportunity for me to see the amazing work Silvana and her colleagues are doing during that visit. I see the work that Silvana is doing in Brazil having a great momentum for our global activities of the "Geo for All" mission.

I would like to share some of the things I learned from our colleagues in Brazil which I think is relevant to the wider community:

- 1. There are fast paced developments happening in Geospatial domain and it is important the countries should keep updating their Geoinformation policies to reflect this and take advantage of the new opportunities. I am pleased to see countries like Brazil are well tuned to global developments.
- 2. It is important to have inputs from the academic community, and I was pleased to see this bringing together of key people from government and academia to discuss ideas and good practices.
- 3. Education and Capacity building is key for expanding opportunities.

Recently Silvana and other colleagues at the International Cartographic Association (ICA) and its commissions have been contributing efforts as part of the International Map Year (IMY) by highlighting the value of cartography by "mapping" the UN sustainable development goals and providing map perspective on the sustainable development goals [1].



Special thanks to Silvana and cochair Michael P. Finn (United States Geological Survey) as well as all members of the commission for their contributions to the goal to reduce inequalities within and among countries. Inequalities can have a strong geographic component, and maps are a powerful tool to understand factors and plan measures to address such issues. Details at http://icaci.org/files/developmentgoals/goal 10.pdf

Humanitarian Cperditreedflag from (Horrison Cperditreedflag from Charles) (Horrison Cperditreedflag from Charles) (Horrison Cperditreedflag from Charles) (Horrison Cperditreedflag from Charles) (Horrison Cperditreedflag from Cperditreedflag

VIVA GIS!
EMPOWERMENT THROUGH MAPPING

Geo for All is committed to work towards the vision of the United Nations 2030 Agenda for Sustainable Development for building a better world for everyone. Open Education is the simple and powerful idea that the world's knowledge is a public good and that technology in general and the internet in particular provide an extraordinary opportunity for everyone to share, use, and reuse knowledge. Openness is key for true empowerment and sustainability [2].

Geo for All is a worldwide movement that provides immediate benefit to the world. We will also link the ideas from Maps and Sustainable Development Goals to our **Vision 2030 for Open Geospatial Science** as there are also a lot of synergies and will add











momentum for our vision for Open Geospatial Science [3]. We aim to create openness in Geo Education for developing creative and open minds in students, which is critical for building open innovation and contributes to building up Open Knowledge for the benefit of the whole society and for our future generations.

I am sure Silvana will expand these ideas for the future. We are looking forward to building strong research and teaching collaborations worldwide in Open Geospatial Science. We are proud to honour Silvana as our GeoAmbassodor, and we are extremely grateful for her contributions to Geo for All.

Best wishes,

Suchith Anand

[1] http://icaci.org/maps-and-sustainable-development-goals/

[2]http://opensourcegeospatial.icaci.org/2016/07/sh aring-is-caring-why-openness-is-key-for-trueempowerment-and-sustainability/

[3]http://opensourcegeospatial.icaci.org/2016/06/open-consultation-on-the-vision-2030-for-open-geospatial-science/

4. Conferences

Asia

November 2016

1. 28-30: 2nd Int'l Conference on Remote Sensing Technologies and Applications (ICRSTA 2016) Sanya, China. More details at http://www.engii.org/ws2016/Home.aspx?ID=819

March 2017

2. 20-21: Global Forum for Innovations in Agriculture (GFIA)

Deadline August 31st. Abu Dhabi National Exhibition Centre, UAE. More details <u>here</u>

Africa

October 2016

3. 24-28: 11th International Conference of the African Association of Remote Sensing of the Environment Hotel Africana Plot 2-4 Wampewo Avenue, P.O. Box 10218, Kampala, Uganda

For more information: View Summary (http://goo.gl/VYR8cd)

Europe

August 2016

4. 24-26 August: FOSS4G Conference, Bonn, Germany. Registration started.

September 2016

5. 12-14 September: <u>Earth Observation Open Science</u> <u>2016 Conference</u> Frascati, Italy.

Deadline for Abstracts: May 15.

6. 26-30: NSPIRE Conference 2016:

http://inspire.ec.europa.eu/events/conferences/inspire 2016/

The INSPIRE Conference 2016 aims to show how the implementation of INSPIRE contributes to the European Interoperability Framework and the EU's digital economy in general.

The INSPIRE Conference 2016 will take place in Barcelona, 26-30 September 2016

VII Jornadas Ibéricas de Infraestructuras de Datos Espaciales: http://www.jiide.org/jiide2016/inicio

Del 27 al 30 de septiembre tendrá lugar en Barcelona las "VII Jornadas Ibéricas de Ibéricas de Infraestructuras de Datos Espaciales". En esta ocasión, además coinciden con la conferencia Inspire.

7. 29-30: EUROGEO 2016 "Geographic information for a better world", Malaga, Spain.

One proposed session is "Open Source GIS applications in Geospatial Analysis, Policy and Planning" and there are others on Green Infrastructures, Future Urban Planning and Education.

October 2016

8. 12-16 October: Open Source Geospatial Research and Education Symposiun 2016











Venue: Palazzo Cesaroni - Piazza Italia, Perugia, Italy.

North and Central America and the Caribbean

September 2016

9. 5-8 September: URISA Caribbean GIS Conference

Barbados

10. 11-17 September: International Data Week (IDW)

Venue: Denver, Colorado, USA

The theme of this landmark event is "From Big Data to Open Data: Mobilizing the Data Revolution".

11. 11-16 September: Research Data Alliance Plenary 8

Denver, Colorado, USA (within International Data Week).

12. 14-16 September: AutoCarto 2016

Albuquerque, New Mexico, USA. Early registration has expired.

Registration: http://tinyurl.com/zl8dadg

Note: Attendees must be registered for AutoCarto 2016. There is no separate or additional fee for the

workshop

Lightning Talks: 14 September 2016

October 2016

13. 2-5 October: <u>69th Canadian Geotechnical</u> Conference

Vancouver, British Columbia, Canada.

14. 20-21: Mississippi Geospatial Conference

Long Beach, Mississippi, USA.

July 2017

15. 2-7: 28th International Cartographic Conference (ICC) of the International Cartographic Association. Submissions are due October 26, 2016

South America

October 2016

16. The Uruguayan gvSIG Community is organising the 4th Free and Open Source Geographic Information Technologies Conference.

Venue: Montevideo, Uruguay.

More details at

http://www.gvsig.com/en/eventos/jornadaslac/2016

5. Webinars

Thanks to Rafael Moreno, Department of Geography and Environmental Sciences, University of Colorado Denver, the Network is informed about the new webinar collaborations with the University Consortium for GIS (UCGIS), and the *The American Society for Photogrammetry and Remote Sensing* (ASPRS).

- 1. The Department of Geography and Environmental Sciences will coordinate with ASPRS for 2-3 webinars of their yearly webinar offerings.
- 2. For these 2-3 webinars they will post the Geo4All webinar offering in the ASPRS webinars calendar and promote them with their members and mailing lists.
- 3. For these 2-3 webinars the Department of Geography and Environmental Sciences will use the ASPRS webinars system. They will record webinar, create MP4 video recording and give it to GeoForAll Network for posting in the Geo4All Webinars YouTube Channel. They will also post the recording in the ASPRS YouTube channel. Their webinar broadcast system supports up to 500 participants and usually they have over 100 people attending.
- 4. The ASPRS webinars usually take place final Friday of every month around noon. The Department of Geography and Environmental Sciences will select dates for the join webinar preferably out of the summer months when many members and audience of the Geo4All community are out.



6. Courses

 <u>Triangle Area GIS</u> is a "collaboration site for multidisciplinary GIS users in the Triangle" area of North Carolina. They offer free webinars throughout











the year in many GIS and mapping areas, as well as paid training and group meeting planning space.

 "Data Wrangling with MongoDB" Includes a lesson with OpenStreetMap, and explores using data from multiple sources and using it for data-driven applications. https://www.udacity.com/course/data-wrangling-with-mongodb--ud032

7. Training programs

- GeoForAll educational inventory system, a place to search and share educational materials: http://www.osgeo.org/educational content
- https://blog.gvsig.org/2016/08/02/as-a-reminderwebinar-getting-started-with-gvsig/

gvSIG blog

gvSIG

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

1. The book Open Innovation, Open Science, Open to the World - a vision for Europe brings together some of the key conceptual insights behind the "Three Os" and highlights actions that are already taking place.

You can download the book from the EU Bookshop at http://bookshop.europa.eu/en/open-innovation-open-science-open-to-the-world-pbKI0416263/

The pycsw Team Announces Release of pycsw0.0 "Doug"

The full list of enhancements and bug fixes is available at https://github.com/geopython/pycsw/milestone/8
Users are strongly advised to review the migration guide.

"The 2.0.0 release is codenamed "Doug" in honour of Doug Nebert of the FGDC. Doug was internationally

recognized as a champion of metadata, discovery and interoperability. Involved in numerous international standards bodies and spatial data infrastructure initiatives, Doug was one of the editors of the CSW 3.0 specification and encouraged pycsw developers to adopt and implement CSW 3.0 as part of US data.gov efforts. Doug's vision and expertise will always be remembered and appreciated by the pycsw development team."

3. New Version of 52°North SOS Available

A new version of the 52°North SOS is available. The 4.3.7 release fixed several bugs, updated the REST API and added support for the OGC SOS 1.0 GetObservation resultModel.

Release notes:

https://github.com/52North/SOS/blob/master/RELEA SE-NOTES

Download:

- 52°North SOS 4.3.7
 http://52north.org/downloads/download/3-sos/490-52n-sensorweb-sos-4-3-7
- 52°North SOS 4.3.7. bundle. It contains sources and binaries, as well as the Sensor Web Client RESTful API and the Sensor Web JavaScript SOS client. It also provides support for OM_SamplingObservation in JSON binding. http://52north.org/downloads/download/3-sos/491-52n-sensorweb-sos-bundle-4-3-7

4. MapSwipe Mobile App

By Alexander Zipf, posted to the Geo4All Mailing List

MapSwipe is an app that allows you to support humanitarian aid by simply using your mobile phone.

In a disaster or humanitarian crisis, knowledge regarding the location of possibly affected and vulnerable people is crucial to provide effective support. *MapSwipe* (mapswipe.org) allows you to map these locations using your smartphone.

Following up on the "<u>Heidelberg Process</u>" developed by the <u>disastermappers heidelberg/GIScience</u> <u>Research Group</u> in collaboration with the











<u>MissingMaps</u> team, the app enables collecting information regarding the location of residential areas using satellite imagery and a microtasking approach.

The disastermappers heidelberg/ GIScience Research Group are supporting the Missing Maps project with Mapathons and by conducting research on the use of OpenStreetMap data for humanitarian aid. The app is a result of this collaboration which provides an example on how research, practice and humanitarian aid can be combined to develop more efficient workflows (see also: Herfort et al 2016).

Contributors are asked to mark map tiles and to thereby provide information regarding inhabited regions.

One tap hereby signifies that residential features could be identified, a second tapindicates the likeliness of features. A third tap flags tiles with bad image quality. If no features are visible you can just swipe to the next tile and go on with the task.

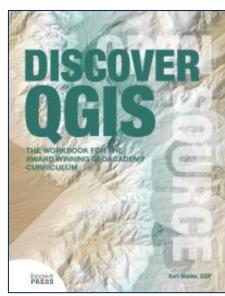
The app allows you to contribute online as well as offline, using satellite imagery that can be downloaded beforehand. Therefore the app allows you to contribute from home just as easy as on the commute. The provided information can be utilized by mappers to furthermore digitize building structures, roads and other individual features. That way base maps that support the work of MSF, the Red Cross and other organizations are developed in a collaborative workflow.

MapSwipe is as of now available in the <u>Google Play</u>
<u>Store</u> and <u>Apple App Store</u>!

11. Free Books, educational materials, etc.

Kurt Menke announced the pre-release of a new GeoAcademy workbook named "Discover QGIS," available here: https://locatepress.com/dqw

For the first the time, entire GeoAcademy curriculum has been converted to fit into convenient workbook format with Locate Press. Originally written for QGIS v2.4, the



GeoAcademy material in this workbook has been updated for use with QGIS v2.14, Inkscape 0.91, and GRASS GIS 7.0.3. The material is also backwards compatible to QGIS v2.8, despite minor GUI changes. It therefore represents the most up-to-date version of the GeoAcademy curriculum!

This workbook covers GIS fundamentals, spatial analysis, data management, cartography, and remote sensing. There are solution files for each exercise, and most exercises have a challenge exercise. Discussion questions are also included at the end of each exercise. Some of the many highlights include learning how to: work with coordinate reference systems, create data via georeferencing and geocoding, using GRASS to conduct a supervised classification of satellite imagery, and work with both QGIS and Inkscape to create a publication quality map. Thought was given to improving the content and organization for both hardcopy and electronic readers. The GeoAcademy data was reorganized to match a chapter structure.

Changes were made to several exercises, reflecting the newly updated integration of GRASS GIS with QGIS that came with QGIS v2.10. Portions that include working with GRASS vector maps include both GRASS 6 and GRASS 7 versions of the exercise databases. The portions using the free software Multi-Spec were rewritten using QGIS. Efforts were also made to incorporate some of the exciting new QGIS features such as Live Layer Effects into the Challenge Assignments. It also includes a forward by Dr. Phil











Davis.

The book can be purchased now as a digital preview version for \$24.95 from

https://locatepress.com/books

https://www.amazon.com/Discover-Qgis-Kurt-Menke/dp/0989421767/ ref=zg bsnr 4053 36

12. Articles

Abbreviations

by **Nikos Lambrinos**, Chief Editor

Department of Primary Education, Aristotle
University of Thessaloniki, Greece

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

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

CAD: Computer Aided Design

CEOS: Committee on Earth Observation Satellites CLGE: The Council of European Geodetic

Surveyors

COGO: Coordinate geometry

CRS: Coordinate Reference System

CSA: Canadian Space Agency

DAAC: Distributed Active Archive Center (of

NASA)

DEM: Digital Elevation Model

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

EPSG: European Petrol Survey Group (used in

projection IDs)

ESA: European Space Agency

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

HOT: Humanitarian OpenStreetMap Team

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

LiDARL: Light Detection and Ranging

LOC: Local Organizing Committee

LOD: Level Of Detail

MoU: Memorandum of Understanding

NAD: North American Datum

NGA: National Geospatial Intelligence Agency

OER: Open Educational Resources
OGC: Open Geospatial Consortium

OSGeo: Open Source Geospatial Foundation

OSM: OpenStreetMap

RCMRD: Regional Centre for Mapping of

Resources for Development

ROSHYDROMET: Russian Federal Service for

Hydrometeorologyand Environmental Monitoring











SDI: Spatial Data Infrastructure

SQL: Structured Query Language

STSM: Short Term Scientific Missions

TIN: Triangulated Irregular Network

UAV: Unmanned Aerial Vehicle

USGIF: United States Geospatial Intelligence

Foundation

WCS: Web Coverage Service WFS: Web Feature Service

WGCapD: Working Group on Capacity Building

and Data Democracy

WGS: World Geodetic System

WMO: World Meteorological Organization

WMS: Web Map Service

WMTS: Web Map Tles Servises WPS: Web Processing Service

17. Ideas / Information

1. There is a new YouTube channel where we will be posting the Geo4All webinar recordings and other related videos. Subscribe to it (click on red button on right hand side).

Check it out:

YouTube Channel

https://www.youtube.com/channel/UCL1E2akvCNWP _nC0p5CpB8g



2. Call for Papers for a JSTARS Special Issue on "Advances in Agro-geoinformatics Research and Applications"

Full paper submission deadline: October 15, 2016

More info at: http://www.grss-ieee.org/wp-

content/uploads/2016/04/

Call for Paper ArgoGeoinformatics2016.pdf

3. The Klaus Tschira Foundation funds a new project to establish the "Heidelberg Institute for Geoinformation Technology" at the University of Heidelberg.



A major project funded by the Klaus Tschira Foundation (KTS) Heidelberg started in July 2016. The KTS will support the establishment of the "<u>Heidelberg Institute for Geoinformation Technology</u>" (HeiGIT for short) within the <u>Institute of Geography</u> at Heidelberg University.

This new project aims at improving knowledge and technology transfer from fundamental research into practice within the field of Geoinformatics.

Initially, the HeiGIT team will focus on *three main topics*:

• "Navigation Intelligence and Location-based Services"

(the development of services that are strongly linked to location, e.g. routing and navigation services such as OpenRouteService.org),

• "Big Spatial Data Analytics" (the analysis of large amounts of spatio-temporal data, e.g. traffic patterns in a specific region) and

• "<u>Volunteered Geoinformation for Humanitarian</u>
Aid"

(the use of spatial data for disaster management)











The GIScience team headed by Prof. Zipf has already demonstrated through previous projects its ability to realise services that can be (and have been) used by the wider public - for example in the use case of <u>route planning</u>. In addition, during a number of real disaster events, both scientists and students from the group have contributed their know-how to assist in disaster management efforts. For example, after the earthquakes in Haiti and Nepal, the <u>GIScience team</u> provided support through the generation of geographic information using multiple sources such

as OpenStreetMap,
Twitter, Flickr, and
Instagram. These
contributions helped to
answer important
questions such as
"Which roads are still



passable?", "Where is the level of destruction at its strongest?", "Which areas can be accessed or evacuated in given time frames?" and "How reliable is the information contributed by volunteers?"

New methods for the extraction and processing of geographic information from big and heterogeneous data sources are essential for disaster management, health planning, and environmental monitoring, to name a few. These methods are also required for urban planning and smart cities, and in particular, transportation planning and mobility research. This includes the automated analysis of data from social media, which will be one of the research areas at the new Heidelberg Institute for Geoinformation Technology.

Such information supplements existing data sources from official bodies or from remote sensing by helping to create a richer picture. In particular, data from 'OpenStreetMap' will be used for the creation of up-to-date maps and location-based services. In order to assess, integrate, and use the data from different heterogeneous sources automatically and in an useful way, the HeiGIT will develop, improve, and put into practice advanced methods in the field of Geoinformatics.

The research in Geoinformatics in Heidelberg has its roots in the European Media Laboratory (EML), which

was founded by Klaus Tschira in 1997. In this institute, Alexander Zipf worked as the first PhD student and as a postdoc researcher. Later, the innovative work has been repeatedly supported by the Klaus Tschira Foundation. After years as a professor in Mainz and Bonn, Alexander Zipf returned to Heidelberg University, his alma mater, in 2010, establishing the GIScience Research Group.

The Klaus Tschira Foundation was established in 1995 by the physicist Klaus Tschira (1940 - 2015). The foundation supports the natural sciences, mathematics, and computer science as well as the appreciation of these subjects. The nationwide commitment begins in kindergarten and continues in schools, universities, and research institutions. The KTS is committed to new forms of science communication. It supports both the development and the clear presentation of research results. The foundation realizes its own projects and awards grants.

Further Information:

- GIScience Research Group Heidelberg University uni-heidelberg.de/gis
- Heidelberg Institute for Geoinformation
 Technology <u>uni-heidelberg.de/gis/heigit en.html</u>
- Klaus Tschira Foundation <u>www.klaus-tschira-</u> stiftung.de

https://www.facebook.com/GIScienceHeidelberg

https://twitter.com/GIScienceHD

http://openrouteservice.org

