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The SEG Wiki serves as a key foundation of the Society to engage the membership, the geoscience community, and the public in all-things applied geophysics. The wiki's main mission is to supply scientific material to the geoscience community and the public through online books, geophysical tutorials, geoscience articles, and biographies of geoscientists. SEG's two best-selling books are provided open and free of charge on the wiki. They include the *Encyclopedic Dictionary of Applied Geophysics* by Robert E. Sheriff and *Seismic Data Analysis* by Öz Yilmaz. A third book, *Problems in Exploration Seismology and Their Solutions* by L. P. Geldart and Robert E. Sheriff, will be added soon.

In addition to providing open and free SEG books, the wiki publishes in tandem with *The Leading Edge* bimonthly geophysical tutorials edited by Matt Hall, Wiki Committee member. The wiki also captures the history of the exploration geophysics discipline through hundreds of biographies that highlight important contributions from the founding members of SEG and women in geoscience. John W. Stockwell Jr., Wiki Committee member and past chair, led the addition of hundreds of biographies through his own personal initiative and passion. The wiki also catalogs SEG award winners dating all the way back to the Society's founding.

Student chapters highlight their work on the wiki as well. Pages dedicated to chapters around the world are started and updated by the chapters themselves. These pages catalog leadership, field camp projects, conference trips, lecture tours, and more.

From Hall to Stockwell, volunteers make the SEG Wiki the most active geoscience wiki in the world. Hundreds of volunteers have played a part in writing 115,362 changes to the wiki and

counting. From university partnerships with the University of Houston, Penn State Brandywine, and the University of Oklahoma; to three ongoing translation projects; to student chapter highlights; the wiki provides opportunities for all members of the Society to contribute and make a difference in the science.

One such difference is the partnership with the SEG Translations Committee and volunteers. Two years ago, a dedicated group of volunteers took on the task of translating the *Encyclopedic Dictionary* into Spanish. Eight team leaders along with dozens of volunteers have been diligently working on translating 6777 terms. The team leaders for the project to date are:

- Hector Alfonso
- Maria Brandt
- Sergio Chávez-Pérez
- Raul Cova
- Reinaldo Michelena
- Brenda Monsalve
- Lucía Torrado
- Sven Treitel

Leaderboards

Jorge Luis Nústes Andrade	3,635 edits
Brenda Monsalve	3,349
María Brandt	2,360
Andrés Felipe Salamanca	2,105
Juan Márquez Cruz	1,989
Raul Cova	1,944
César Darío Cantú Bendeck	1,299
Carlos Finlay	1,269
Lara Blazevic	1,258



Progress of the *Encyclopedic Dictionary* Spanish translation project.

Top 10 contributors to the *Encyclopedic Dictionary* Spanish translation project.

¹SEG publications outreach and EVOLVE program manager.

Volunteer spotlight:



Jorge Luis Nustes Andrade, MS student, University of Alberta; and research assistant, Microseismic Industry Consortium

What do you like about the wiki?

What I like about the SEG Wiki is that there is no other wiki with a special focus on geophysics. My favorite part is the biographies of distinguished geoscientists because it allows the public to know about the important contributions they made.

Why do you volunteer for the wiki?

I volunteer because of my passion. I am a curious person and I want to learn more about geophysics while contributing

to it. I find that this is the perfect opportunity to improve my knowledge of geophysics.

What contribution to the wiki are you most proud of?

I am very proud of contributing to the translation of the *Encyclopedic Dictionary*. For me, it's an honor to contribute to the original work of Robert Sheriff and make geophysics available to a global society.

What would you like to tell other volunteers or prospective volunteers?

For other volunteers, I say thank you for your hard work, time, and dedication. Together we make the wiki great. For prospective volunteers, I encourage you to apply and be a part of this amazing project. I have learned so many things in my two years of volunteering, and the wiki has influenced my life in more ways than I could have imagined.

Along with these amazing volunteers, 60 others have contributed, and many have made more than 500 edits to the wiki. As of 7 October 2018, the book is 89% complete.

Stockwell shares, "As with any human endeavor, exploration geophysics is really about the people. We have technological advances, scientific discoveries, and industry game changers, but we should never forget that these developments are made by our colleagues, friends, and teachers. SEG attempts to recognize the important contributors to our discipline through awards, but these awards mean very little if nobody knows about the recipients. I have pulled from the dusty journals biographies and images of those who founded and nourished our discipline from its infancy to the present era. The threads of these lives lead to those who are revolutionizing exploration geophysics today."

Starting in 2014, the wiki has awarded volunteers that went above and beyond in their contributions. Since 2015, students and student chapters have also been recognized.

- 2014 Champion: John W. Stockwell Jr. for contributing hundreds of biographies
- 2015 Champion: John W. Stockwell Jr. for his continued commitment to preserving the history of exploration geophysics
- 2015 Student Champion: Raul Cova for his contributions that include improving equations, references, and figures within the *Encyclopedic Dictionary* and launching biographical and project articles related to the University of Calgary
- 2015 Student Chapter Champion: Student Geoscientific Society Berlin and Potsdam for launching comprehensive student chapter pages complete with information about conferences, field camps, and awards of the chapter
- 2016 Champion: Laura Guertin for her classroom collaboration that led to over 100 articles
- 2017 Champions: Hector Alfonso, Raul Cova, Reinaldo Michelena, and Sven Treitel for serving as team leaders on the translation project of the *Encyclopedic Dictionary*

- 2017 Student Champion: Jorge Luis Nustes Andrade for thousands of translations on the translation project of the *Encyclopedic Dictionary*

The 2018 Champion was another professor, Heather Bedle, this time from the University of Houston. In 2017, Bedle's students started contributing geoscience articles each semester. In fact, Kamil Madey, a student from Bedle's undergraduate seismic interpretation class, added the 100,000th edit in March 2018. Now at the University of Oklahoma, Bedle continues her classroom collaboration with the wiki. Her partnership has added dozens of new articles.

She shares, "I got involved because I was looking for a way to volunteer within SEG. Plus, working on expanding the wiki is important to me as an educator. I am glad to be part of such a tremendous effort in the geophysics community. As long as there are still topics to write about, I plan on letting my students continue creating new wiki pages for years to come."

To Bedle and all of the past award winners — thank you.

In addition to classroom partnerships, student chapter contributions, and the Spanish translation project, two other translation projects are underway for the *Encyclopedic Dictionary*. Alfred Liaw, Jianxiong Chen, the Chinese American Petroleum Association, and several volunteers have started work on translating the dictionary into Mandarin. Hong Jin, Jing Xiang, Lei Fu, Tao Li, Yaping Zhu, Yiling Li, and Zhiguo Wang are serving as team leaders for the project. As of 7 October 2018, 3507 entries have been translated in their entirety to Mandarin by 37 volunteers. More than 50% of the book is complete.

Additionally, an Arabic translation has started. Led by Abdullatif A. Al-Shuhail and Mohammed Aqel, efforts continue to bring Sheriff's classic book to more and more people around the world in their native language.

The amazing ability for the wiki to showcase contributions is powerful for volunteers and the public. The Wiki Committee

Volunteer spotlight:



Karl Schleicher, senior research fellow, Bureau of Economic Geology, University of Texas at Austin

How did you originally find the wiki?

I was interested in open geophysical software. I knew about Seismic Unix, Madagascar, and SEPLib. I think these tools are useful to startup companies and university research, but we also need access to open data. I discovered a Michigan Tech website created by Wayne Pennington that listed some open data. I started to process a land line from Alaska using Seismic Unix. Sergey Fomel asked if I was interested in working for him at the University of Texas. We discussed the availability problem of open geophysical data and that led to an appointment to find, curate, and promote the use of open geophysical data for his group and the geophysical community in general. At an SEG Annual Meeting, I attended the SEG Online Committee and the Wiki Subcommittee meetings. On 9 January 2012, I created the “open data” page in the wiki. This was before the wiki was publicly available.

Why do you volunteer for the wiki?

When I heard about the wiki, I thought it would be a great place to index open data. I wanted to update and expand Wayne Pennington’s website that listed sources of open data. Some of his links no longer worked, and I was starting to discover new open data archives. I also discovered data that, while open, you need to know someone that had the data and would provide

you a copy. I set up an FTP server on Amazon that would allow geophysicists to anonymously download the data. I thought researchers would like to look at the data before formally discussing with a manager, client, or competitor.

What contribution to the wiki are you most proud of?

Most of my contributions to the wiki have been related to open data. I thought archiving, curating, and the distribution of open data was neglected in geophysics, and I discovered it was emerging as a problem in most branches of science. My efforts proved to be useful to help distribute data for SEG postconvention workshops on full waveform. Chevron started these workshops to compare full-waveform inversion results on shared open synthetic data. It was a continuation of the BP velocity estimation benchmark model created for a 2004 EAGE workshop. In early 2014, I included these data on the “open data” page of the wiki and helped Chevron distribute synthetics. The wiki index of open data and data hosting at Amazon allowed wider anonymous participation in this workshop.

What would you like to tell other volunteers or prospective volunteers?

Wikis are an easy way to write web pages and develop good skills. There is a large body of technical material created by volunteers in the wiki that is widely used by the scientific community. Don’t be afraid to correct errors or write a short introduction to a topic that you would like help creating. What worked for me was specializing in a topic I was interested in like open data. I have also added biographies of geophysicists I respect or like. You might write something about a local geophysical group. These are good ways to start building some skills to write and edit wiki pages.

Volunteer spotlight:



Heather Bedle, assistant professor, University of Oklahoma

How did you originally find the wiki?

I originally found the wiki when I was beginning my teaching career and looking for the explanation of some concepts to help in my lecture.

Why do you volunteer for the wiki?

I volunteer for the wiki because I love the idea of spreading knowledge. The wiki helps explain concepts to experts and novices as well as the general public, which is wonderful because it helps my family and friends understand what I am talking about. I also find it useful as a quick reference for my students and for myself, as I sometimes come across concepts that I need a better understanding of.

What contribution to the wiki are you most proud of?

While I have written a few wiki articles, I am most proud of my students’ work. I enjoy helping students identify a topic that is a curiosity of theirs that they want to learn more about. And the best part is seeing those couple of students in every class that really delve into the project and embrace the idea of writing to communicate a technical idea.

What would you like to tell other volunteers or prospective volunteers?

I would like to tell other prospective volunteers to always think about finding a way to give back through volunteering. All of us have built our careers and knowledge with the help of others, and you never know when you will do (or write) something to spark the interest of a future geophysicist.

Volunteer spotlight:



**Lucía Torrado, PhD candidate,
University of Houston**

How did you originally find the wiki?

Sergio Chavez told me about the project and asked if I wanted to join. He was looking for translators, preferably geoscientists with a good level

of English.

Why do you volunteer for the wiki?

As a geologist, I get to learn more about geophysical terms. I get to practice my English. I consider these types of projects to be an excellent resource especially for young professionals such as myself. I learn about time management, self discipline, and leadership. And as someone who personally met Robert Sheriff at the University of Houston, I feel honored and humbled to be a part of such a fantastic project.

What contribution to the wiki are you most proud of?

I'm proud of the work I have done with translation. But most importantly, I am proud that I was able to involve more people in the project and keep them motivated. On one occasion, I saw a post on LinkedIn from a Colombian colleague talking about how great the wiki is and I thought to myself "Awesome! That's a nice validation for all of the work that Andrew, the team leaders, and the volunteers have done so far."

What would you like to tell other volunteers or prospective volunteers?

I would encourage them to join and to not feel intimidated by the experience.

Volunteer spotlight:



**Brenda Monsalve, marine
geologist, independent contractor**

How did you originally find the wiki?

A friend of mine told me about the great opportunity and I immediately volunteered.

Why do you volunteer for the wiki?

I find this project very exciting and rewarding. I met Robert Sheriff while I was studying at the University of Houston and realized that he was a great and respectful professional.

What contribution to the wiki are you most proud of?

I enjoy working with a variety of volunteers from many parts of Latin America. I also enjoy interacting with students and recent graduates. It's interesting and fun to participate in biweekly meetings with the other team leaders. We learn something from each meeting.

What would you like to tell other volunteers or prospective volunteers?

I encourage all who are interested or who have been called to participate in this type of project to do so. I am very proud to participate in a pilot project of this magnitude and with an organization as serious and famous as SEG. The SEG project managers provide a very complete training and accompaniment.

governs the wiki and only registered users can contribute, but the immediate ability to share knowledge and expertise is influential. For example, visit <https://wiki.seg.org/wiki/dictionary:jacobian> to see the translation projects in action.

Volunteers will continue to play a key role in 2019. New Wiki Committee Chair Karl Schleicher will lead the wiki to new areas, such as growing our university class partnerships and partnering

with the Geophysical Society of Houston to add to its geoscience museum. If you would like to learn more about working with the wiki, please contact wiki@seg.org or visit <https://wiki.seg.org>.

The wiki's sustaining investors are Apache (founding sponsor), Shell, IHS Markit, and In-Depth Geophysical. Thank you for your belief and donations to continue to bring the SEG Wiki to the world. **WLE**