# Engaging the Invisible Americans: Science communication for Spanish-speaking audiences

Submitted by Ivan Fernando Gonzalez [2] on 7 December 2013 - 11:52am



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They say you should know your audience...But can you really know your online audience? Especially one that does not speak your own language? Writing content for an online audience requires some guesswork and a lot of hope; you guess what your audience may want to read, you write it for them, and you hope that what you wrote will engage them. The truth is that, apart from online comments and some statistics about clicks on your links, there is not a lot of feedback available about your online readers. When the audience you need to reach has a different culture or language than your own, this guesswork may become a little too difficult to do from the chair in front of your computer. Thankfully we don't exist in a total vacuum, and we can build partnerships with trusted institutions and members of the audience that we want to reach. For Spanish-speaking audiences in the USA those partnerships are readily available: bilingual, trusted, sources at the federal, state, and local level are always hungry for more and better content for Hispanics. (Published previously in ScienceSalsa.com)

Make no mistake, Spanish-speaking audiences need to be engaged in the discussions about science, medicine and technology in America. It is not only about inclusion and social justice, but about the massive force of <u>demographics</u> [3]. Hispanic Americans are a fast growing community. They make up 17% of the population, and are projected to be 31% of the population by 2060. USA is the fifth largest Spanish-speaking country by population, and Spanish-dominant and bilingual Hispanics <u>accounted for more than 54% of the 32 million Hispanics online in 2010</u> [4]. To leave behind the first-generation of Spanish speakers is not even an option; Americans raised fully bilingual require the constant partnership and <u>support of their Spanish-speaking parents</u> [5] to succeed in STEM.

#### What we learned at the Science Online Seattle event

Last week at the University of Washington in Seattle we had the chance to ask questions about the Hispanic audiences and to hear <u>four different experiences engaging the Hispanic population en español using the Internet [6]</u>; One global, one at Federal level, one at Washington State level, and one local. Those were our "conversation starters" that began the conversation at the event:

- Mónica Feliú-Mójer talked about how an effort to bring science communication in Spanish to an island (or archipelago [7] to be more precise) became a global online community [8].
- Adrianna Gutierrez talked about the Federally-funded effort to bring accurate, up-to-date and reliable information on cancer to the whole nation in English [9] and Spanish [10].
- Sarah Doty talked about an effort started in the late 1970's [11] to serve the health needs of the Latino community on western Washington state, and how their efforts still rely on improving health literacy [12] to improve health outcomes, using radio and traditional media, but also social media [13] and digital storytelling [14].
- Ivan Orbegozo talked about how he is trying to leverage mobile devices to give centralized access to local resources for Spanish-speaking immigrants [15] in Washington.

# Enhancing science learning with concepts relevant to local context and to Hispanic culture:

Mónica Feliú-Mójer of <u>Ciencia Puerto Rico</u> [16] (CienciaPR) told us about the non-profit grassroots organization composed by people with an interest in science and Puerto Rico. Their website is the headquarters for most initiatives, but CienciaPR is more than a website, it is a global community, and a big one: it connects 188 academic institutions, 6,500 members, and 100 scientific disciplines.

Feliú-Mójer reminded us that science learning is enhanced when concepts are made relevant to your context and to your culture. In many Spanish-speaking communities concepts are seldom illustrated in a culturally relevant fashion, and that sends the wrong message to the public and to students. It sends the message that science is not relevant for them or that they can't become a scientist. Scientists and communicators can help changing this perception by communicating science to the public in a culturally relevant fashion. CienciaPR successfully enlisted scientists from their online community and communicators to create this kind of content (more than 384 articles so far). The effort became a book [17] and now is used in Puerto Rican schools as a textbook, making an impact in K-12 science education.

Science communication is not only about language and what you say, but also about who says it. If you see somebody that speaks your language, shares your background, and looks like you, that communicates that science is relevant to you, and you can reach what that person is. For that reason another successful initiative of CienciaPR has been adding profiles of Hispanic scientists - and personal blogs- and organizing school visits to help change the perception of what a scientist should look or sound like.

# If you are engaging the Hispanic community, make sure you include a way they can ask questions and get more

#### information

Adrianna Gutierrez described the <u>Cancer Information Service</u> [9] (CIS) as the link between the scientific health information of the National Cancer Institute and the community. "We help them answer any questions they may have about cancer and make it in a way that is understandable for them". She emphasizes that when you are bringing information to Spanish-speaking populations you should also give a way for the community to ask questions and get more information.

The CIS effort relies heavily on the Internet. Not only have one half of the people who contact them found about this service via Internet, but people are using the Internet to contact them with questions: roughly one third of contacts were through email (as many contacts as with their phone calls), and one fifth of contacts were through their <u>Spanish-language Mobile app</u> [18]. They also have a <u>Facebook page</u> [19], <u>YouTube videos</u> [20], and <u>a twitter account</u> [21] but not a lot of people use those to ask questions.

What are Hispanics asking about? CIS users are usually contacting them with general questions about symptoms and diagnosis, looking for doctors, and treatment. She also noticed the low percentage of Spanish-speaking requests for more information on cancer clinical trials (only 7.2% of conversations touch that subject). Latinos(\*) are vastly underrepresented in cancer research and clinical trials and hopefully, by providing this information and engaging the community, the willingness and interest in participating on clinical trials will increase, providing drugs tested to work on groups that are representative of the general population.

# Assess the community you are working with to provide multiple methods for accessing information

Sarah Doty, of <u>Sea Mar [22]</u>, believes the health literacy level of Latinos is an important factor to consider when thinking about what information and resources to put out in the community: an estimated 66% of Latinos have basic or bellow-basic health literacy skills, compared with the overall national number of 36%. **Latinos are a very diverse community, not one size-fits-all, not only in literacy levels but also culturally.** Assuming Spanish-proficiency is also risky; some of them may have Spanish as a second language and indigenous languages as their native tongue. The level of interest is also highly variable, and you should ask yourself continuously how much information somebody wants.

Having multiple levels of interest and health literacy means that high literacy and high interest users get more in-depth information, low-interest users give less in-depth information and Spanish-as-a-second-language users receive media that provides more visual clues. Doty suggested people interested in bringing health or science stories to Latinos to provide both high-level information and formats accessible for public with low literacy levels (with clear visual information).

A a big number of Latino patients at Sea Mar have cell phones with Internet access but they may not have a computer at home. Doty is using <u>digital storytelling</u> [14] and <u>social media</u> [23] as tools to

improve engagement and health literacy in the Latino population. A digital story is basically somebody's personal story, an audio recording with added photos and some music, a tool to educate about health issues but also for personal empowerment. Sea Mar has a <u>Facebook page</u> [13] and <u>radio station</u> [24]. Radio is a great tool to reach Latino population and it is a community-trusted method to get information. In addition to those, Sea Mar refers web-savvy patients to educational videos on YouTube to <u>webMD</u> [25], <u>FamilyDoctor</u> [26], <u>Myplate (mi plato)</u> [27] and a smoke-cessation website from the Legacy foundation [28].

## Leveraging mobile Internet to reach new immigrants

Ivan Orbegozo, of Latin Nexus Group [29], came to Seattle 13 years ago speaking almost no-English. Orbegozo talked during our event about his struggles as an Spanish-speaking newcomer, and how finding resources like the Seattle Public library allowed him to learn English and to find a job communicating technology in Spanish. Now he is building the service he dreamed of when he first came to the USA: a centralized list of local resources for Spanish-speaking people using mobile devices. The choice of platform has to do with cell phones helping to reduce the digital divide between Latinos and whites [30], and the service is implemented in HTML5 [31]to avoid both Hispanic users reluctance to install applications and the segmentation inherent in selecting a specific phone platform for the application.

## There is no such a thing as a monolithic audience

To provide context and culturally relevant concepts to Hispanics with roots in the Caribbean and to Hispanics in New Mexico may need sometimes a complete rewrite of your text. Hispanics are a group united by Spanish language and a common history, but not only the language and scientific literacy levels are variable across the community. The same language is not use it the same way in different cultures, and that reflects in the choice of words needed to convey your meaning. There is no easy out-of-the-box way to communicate with Spanish-speaking audiences, but a myriad of possible partnerships with trusted sources for the Hispanic community to create effective and delightful science communication content in Spanish.

## What can you do to create content that engages Hispanic Americans?

Sarah Doty firmly believes that it is important for science communicators to grow with the rapidly growing Latino population in a way that involves the Latino community. I completely agree. Hispanics are not invisible, they are not hiding from you, but they are under the radar for a lot of people in the science communication community. It takes a tuned ear and constant interest to hear the voices that learned first how to speak Spanish, and today are intermingled in our daily lives. Now that you may have caught a glimpse, what can you do to create content that engages Hispanic Americans?

Connect with people of the community, look for individuals that are already trusted by the community, and know what the community needs. User that connection as your platform.

- You may contact the panelists (see form at the bottom) or contact me [32].
- The <u>CienciaPR</u> [33] database is a good point to start looking for partnerships, they have a great membership map with people all over the country. You don't need to be born in Puerto Rico to be a member, you only need to have an interest in science and Puerto Rico.
- You may also check an opt-in list of Spanish-speaking science communicators I am hosting called "Ciencia Para Todos" [34] with about a dozen of communicators in USA, another dozen in Spain, and a dozen in Latin-America.
- Check out this international Twitter list [35] with over 150 Spanish-speaking science communicators.
- At the federal level several institutions have an effort in Spanish, from <u>NASA</u> [36] to <u>EPA</u> [37], check if some government organizations in your area of expertise may be interested in partnerships.
- Some professional organizations have an Spanish effort like the <u>American Chemistry</u> <u>Society</u> [38] or have a hub for minority scientists like the <u>American Physical Society</u> [39], check if your professional society has one.
- Contact your local SACNAS [40] or SHPE [41] chapter.
- Follow #sciolang and #comuniciencia hash-tags on Twitter
- Google your city name and the word "ciencia" you may be surprised of what you find.

For the full conversation please watch the video (1 hour): Watch live streaming video [42] from scienceonline [43] at livestream.com

For more about the discussion during our event, including parts that are not included on the live-streamed video, please <u>check the Storify of the event [44].</u>

(\*) Hispanic and Latino are used very often interchangeably, but I use Hispanic to convey a population with Spanish as main language and cultural tradition, while Latino means to me people with roots in Latin-America. Hispanic includes people born in Spain, but excludes Brazilians because they speak Portuguese, Latino excludes Spanish but includes Brazilians.

#### Related articles

- Engaging the Invisible Americans: Science communication for Spanish-speaking audiences
- Why science communication in Spanish? [4]
- A Social Network to Inspire and Communicate Science, en Español
- Let's Start a Dialogue: an Interview with Luis Quevedo [46]
- La lengua franca de los científicos es el inglés, pero que pasará en el futuro? [47]

#### Contact our panelists:

[contact-form][contact-field label='Panelist' type='select' required='1' options='Mónica Feliú-Mójer,Adrianna Gutierrez,Sarah Doty,Ivan Orbegozo'/][contact-field label='Name' type='name'

required='1'/][contact-field label='Email' type='email' required='1'/][contact-field label='Comment' type='textarea' required='1'/][contact-field label='Website' type='url'/][/contact-form]

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#### Tags:

Comunicación Científica [48]

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