

**Reasons and facts that make science to be in front page:
The case of a Mexican researcher in the local and national press**

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Abstract

The present work examines the factors that influence journalists to publish research and opinions of Ph.D. Said R. Casolco, Mexican researcher who has been able to get attention from the media for more than four years due to his specialization in superplastic materials field and research focused in porous materials, processes related to the behaviour of biomaterials. Also he has developed 25 patents and registered seven trademarks.

Asking journalists about the factors that make them to publish topics related to Said R. Casolco's fields, we have been able to know the reasons that make science to be in front page news and to realize the importance of the *University's Press Office* where he works. Nowadays scientist and journalists have a strong relationship because of the mediation of

the *Press Office* to urge informal talks, well written press releases, press conferences, availability for interviews, recommending science topics for journalists and emphasizing scientist's qualifications.

Scientist's communication skills are other reasons to encourage journalists to be interested in science news and to have more possibilities to be published.

These actions have given successful facts; Said R. Casolco in 2013 accepted an honorific mention in the National Award of Scientific Journalism and Divulcation given by the National Council of Science of Technology (Conacyt).

Furthermore he has achieved more than 300 notes in local and national press and he has gotten more than 50 TV reports in local and national networks, 100 mentions in radio and one thousand in online papers.

Introduction

Massarani, Buys, Amorim and Veneu (2005) mentions that in Latin America science communication activities have experienced significant growth. Currently channels such as magazines, newspapers, radio and television are being used to communicate science. However, research reveals that it is common to find high presence of foreign research in Latin American newspapers because the practice of using imported information brings a certain warrantee of quality for journalists, who "argue that the science and technology produced in the so called First World countries are far greater than what is produced in our countries and, therefore, it would be reasonable to observe this difference" (p. 5).

In Mexico Rosen, Rueda, Tagüeña and Cruz (2011), in their study to know the situation of the communication of science, found that the Scientific and Technological Advisory Forum in 2009 pointed out that in Mexico only 69 of 294 newspapers often publish scientific information.

Besides, only a few journalists have tried to write about science because they consider not well informed to talk to a scientist. Thus there are no professionals and very few people have really got involved in this field (Magaña, et al., 1994).

Even though this investigation was done 20 years ago, nowadays this situation persists when research explains that in Mexico 70 percent of the media in Mexico do not have a science department (Rosen, et al, 2011).

Reed (2001) considers they are not journalists specialized in science because they see themselves as engaged in criticism, entertainment and information rather than scholarly communication and paternalistic education on behalf science which is desired by scientists.

These tensions are less marked between specialist science writers/journalists and scientists, as science, journalists appear to be closer to scientists than other journalists in terms of language and the culture of science (Schacter et al., cited in Reed, 2001, p. 3)

And in the case of Latin American, most of the scientists lack the cultural tradition of conceding interviews to the press, the opposite of North Americans, who promptly respond to interviews from journalists from any nationality (Massarani, et al,2005).

Besides the relationship between science and the media it has been characterized by metaphors and terms such as distance, gap, barrier, fence and creative tension (Peters, 2012).

Despite the difficulties to expose science in the media we have been able to achieve great results, finally when a scientist talk about science in public, they are doing more than just disseminating scientific knowledge to nonscientists. They are also representing science and its organizations in a very broad sense and endorsing particular understandings of what science and scientists are and should be (Horst, 2013)

Therefore this article is looking forward to sharing our findings to scientists, press officers at research centers or universities, especially from Latin America, interested in getting attention from journalists.

The study

In order to examine the factors that influence journalists to publish research and opinions of our case study, Ph.D. Said Robles Casolco, we decided to interview four journalists of Puebla, Mexico, city where the scientist works and has experienced media interaction.

This qualitative tool “through questions and answers reaches a communication process that allows constructing a common meaning system about a topic” (Hernández, et al, p. 597, 2008). The criterion for inclusion of journalists was for them to have an interaction with the scientist during the last four years and be working in electronic, digital and press media. The interaction mentioned involves press conferences, interviews, informal talks and use of press releases. Interviews took from one to two hours and journalists.

Eight structured but open interviews were then carried out based on an extensive literature analysis (Hernández, et al., 2008). Interviewers were asked to know informative characteristics they find in the research and inventions and the criteria that editors take into account to publish scientist’s information; how much scientist’s communication skills influence to get their attention; topics they can address beyond his research of developments. Other topics explored included the role of the *Press Office* and the importance of informal talks.

The interviews have been fully transcribed and coded. The analysis is based on dominant and recurring themes with emphasis on meanings and interpretation using respondents’ own language where possible (Reed, 2001).

Results

Applied science and Social Impact

There is agreement from the interviews with journalists that most important informative characteristics of Said R. Casolco’s research are applied science and social impact.

The definition of applied science according to journalists matches to the follow arguments:

- Includes understanding scientific knowledge and methods of scientific enquiry which are embodied in techniques used by scientists.

- Develops this understanding through authentic work-related contexts (how science actually works)
- Focuses on the people who apply the scientific techniques and knowledge, looking into the thought processes and skills involved
- Provides opportunity for practical problem-solving, emphasizing ability to use techniques, skills and knowledge for tackling science-related problems
- Engages with contemporary scientific issues, especially the relation between science, technology and society.
- Requires a high level of numeracy because of the centrality of ‘quantity’ and statistics in the work related science (Donnelly, 2009, p.8)

Journalists consider that research which actually is resolving real problems is a factor to write about it because it will benefit people or industries. Besides the inclusion of students in the research is another factor that journalists take into consideration to publish it because they can show new generations of scientists who are working to make a better state, country and world. In journalist’s words it means hope.

Following we list research (Figure 1) which have had informative characteristics for journalists (applied science and social impact):

- *Process to get matrices of hydroxyapatite derived of mammalian for biomedical use*
- *Manufacturing process of porous lightweight materials Zinc-Aluminum-Silver Alloy*
- *Agrowalls*
- *Organically enriched electrochemical process and / or inorganically a pozzolanic material for plant nutrition*
- *Neonatal Bypass valve of hydrocephalus*

TV coverage of the last patent made Ph.D. Said R. Casolco to accept an honorific mention in the National Award of Scientific Journalism and Divulcation given by the National Council of Science of Technology (Conacyt).



Figure 1

Relation to agenda news

Nearly all of the interviewees mentioned that the essential factor that makes science to be in front pages news is related to remedying a problem that most part of the society is suffering at the same time. Editors take into account how research or findings are linked to agenda news.

how science is resolving a problem that as society we are having? (Jaime Zambrano, journalist from Milenio).

The patent *Adaptive process of volcanic ash as an abrasive for the textile industry* (Figure 2) shows how science is resolving a problem related to the Popocatepetl volcano ash, which during several days coated cars and thicker accumulations coated crops, homes, and sidewalks in towns closer to the volcano. This patent proposes that volcanic ash can be used in textile industries.

Said R.Casolco presented this finding in a press conference giving as a result TV exposure in national and international networks such as Televisa and Telemundo and in national newspapers like Reforma. Also the patent was mentioned in local news and it was disseminated by national information agencies like Notimex.

The scientist as a referent of specialized fields is another factor that is related to agenda news. Journalists contemplate his opinions as useful to generate information; therefore they relate Said R. Casolco to topics such as innovation, automotive industry, sustainability and patents registering process.



Figure 2

Communication skills

Journalists coincided that most of time Said R. Casolco talks about a research he can explain what he is doing by getting out into the real world to talk more directly to the public and by taking care to be scientifically sound and rigorous as he connect his own

work to public policy. This advantage supports journalists to create a more balance and knowledgeable account of science for the public (Kennedy, 2010).

Furthermore journalists mentioned that the scientist uses appropriate language and basic explanations as appropriate, avoids jargon, explains unknown data, includes scientific information, as well as nature of science, organizes presentation well, using good communication techniques: main them, framing, scaffolding, repetition (Baram-Tsabari and Lewenstein,2012)

Also humor is another skill related to Said R. Casolco's style, which includes explicit jokes and andironic language, it is supported by using analogies that are defined as systematic mapping between two situations: the source (familiar situation) and the target (novel situation) (Kappon et. al in Baram- Tsabari and Lewenstein, 2012).

Importance of the Press Office and Informal Talks

Research reveals that most of the time the Press Information Officer (PIO) is viewed as an obstacle designed to protect the university and effectively hide what is really going on from public scrutiny (Borchelt, 2008).

Some Press Offices represent an obstacle to get scientific information, especially when the PIO underlines that just selected researchers are able to be interviewed because they espouse with institutional ideology (Jaime Zambrano, journalist from Milenio)

However, confidence and proximity are factors journalists considered important to collaborate closely to ensure contextualized information (De Semir, 2010). And it has been possible because the PIO is willing to organize press conferences or interviews and generate well written press releases.

When I want to interview Ph.D. Said Robles Casolco the press officer tries to find him and explain his research in a few worlds. And press releases are relevant because contains data, context and references (Abel Cuapa, journalist from Síntesis).

Also journalists consider the PIO as a good source of information and a competitive liaison with scientists:

Frequently this department recommends new data or news. There are topics we do not know and the press office facilitates our job. Besides this entity addresses us to

specialists who can give us detailed information according to their expertise (Blanca Estela Leyva, journalist from TV Azteca Puebla).

On the other hand informal talks are the main aspects to maintain a close relation between journalists and scientists, for them these are more relevant than the programmed interviews.

When we are talking to the scientists without cameras or recorders he can give us ideas about other topics and he has more freedom to explain his research. And if I want to have another interview when we are talking we the PIO let us program directly to the researcher (Gerardo Rojas, journalist from e-Consulta).

This demonstrates that journalists in our case are not wary of the public information approach to PR practice (Borchelt, 2008).

Conclusions

This work identifies the factors that influence journalists to publish Said. R. Casolco's research and patents, giving us a better view of what scientists and PIO should do in order to position science information into the communication media. Most important is to know what journalists are considering at the moment they are attending a press conference or reading a press release.

And even there is no panacea to achieve successful results every time we expose a scientist to the media, to be aware of how related is the scientist's research to the agenda news and his communications skills is a good element to take into account to gain attention from journalists.

Knowing the reasons and facts that make science to be in front page news future research should focus on public in order to know who our readers are and what interest they have to know science information. This background will serve as basis to generate a program of public communication of science among other institutions.

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