

Bloggging as a means of Science Communication: A Critical and Comparative Overview of few eminent Science Blogs and their Effectiveness

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Abstract: Many journalists and critics are of the opinion that news of science is not usually welcomed by the mainstream media, especially print media, unless some extraordinary event like a nuclear explosion, some chemical disaster or strange disease increases TRP or draws people's attention. In this science communication suffers like many other issues of merit. However, in recent times blogs have taken over many of the functions of traditional media in dissemination of scientific knowledge.

News, report analysis can all be accommodated in the blog. This has encouraged many journalists to take up serious issues and express themselves in blogs. Moreover, it has the additional advantage of publishing cheaply and being able to address an audience which is interested and educated. Access to internet and regular use presuppose a certain amount of education.

The study would identify some popular and diverse Science Blogs to critically examine the reasons behind their popularity. In this attempt it would make an in depth study of five leading Science Blogs which are very different to each other and analyse them on the basis of various evaluative parameters.

Key Words: Journalists, Mainstream, Science Blogs, Popularity, Analyse, Parameters

1. INTRODUCTION:

“Science blogs serve a variety of important functions in today’s world of science media. Science bloggers break smaller news stories as well as provide personal insight on and noteworthy criticism of published research. The post-publication peer review provided by science bloggers has resulted in numerous refutations and retractions of research papers. Scientists’ blogs today can be sufficiently influential to set scientific agendas, writes Sara K.Yeo and colleagues in a recently published report on the role of blogs and Twitter in the discrediting of the 2011 arsenic life paper”. (Jarreau, P. American Scientist, 2016)

Print media as a tried and tested means of science communication has been dominant for decades in the twentieth century. However, with rapid rise of digitisation, internet and competition from television, print has been on the back foot worldwide with some exceptions like China and India. Despite the possibly false clamour of print media’s imminent demise an item or article in a printed journal, newspaper or magazine still appears to have more impact and considered more glamorous even today. However, undeniably the reach of the internet and relative economy in publishing has given blogging an attraction for various forms of blogging, including blogging for science communication.

One must understand the reason why science communicators, especially in India, prefer the blog now. Many journalists and critics are of the opinion that news of science is not usually welcomed by the mainstream media, specially print media, unless some extraordinary and event like a nuclear explosion, some chemical disaster or strange disease increases TRP or draws people’s attention. In this science communication suffers like many other issues of merit.

Blogs have now to some extent filled up this void. News, report analysis can all be accommodated in the blog. This has encouraged many journalists to take up serious issues and express themselves in blogs. Moreover, it has the additional advantage of publishing cheaply and being able to address an audience which is interested and educated. Access to internet and regular use presuppose a certain amount of education. Many scientists have now turned to blogs to communicate with their peers. Any visit to science meetings and conferences will make this truth apparent. Besides, scholars and scientists can mail each other links to blogs making it an economical exchange of information and also an engaging one.

A blog according to a rough definition in dictionaries is a periodically and regularly updated page in cyberspace or a web page. It may be controlled or managed by an individual or a group.

Since running and maintaining a blog is easier and more economical than propping up and managing a publication like a magazine or a newspaper, it has been immensely popular especially among youth. Blogs, therefore, often allow young science scholars an outlet to reach an audience which is somewhat educated and thinks and interacts the way they themselves do. Though many still consider using traditional medium as more prestigious, the popularity of science blogs as are here to stay.

As rightly said by Jarreau, P.(2016) in American Scientist, that it has been a long time since scientists have started making use of online media for sharing and disseminating their scientific research work , insights and expert scientific opinion and nowadays blogs have evolved as a significant alternate media in this direction. As described by him that today, professional science writers, major news outlets, and research institutions are also increasingly recognizing the value of posting science related information through blogs. Legacy publications including *National Geographic* have brought science bloggers into the fold, recognizing the power of blogs to promote more regular readership of science.

1.1 Types of Science Blogs

Science blogs can be various kinds dealing with various subjects. They can be Static or Dynamic. In Dynamic Blogs certain screens and buttons may be active. They may at times lead the reader in a particular direction. By and large most serious scientific blogs are static in nature. They try to impress the readers by the serious nature of their discussions. Static Blogs have the advantage of allowing instant postings and is easy to use as well as it can be used with any internet connected device with a browser.

When we talk of Science Blogs, there are a few categories to classify scientific blog posts. They are:

1. **Analyzer-** These blog posts create new content in the direction of measuring and calculating them thus leading to analysis.
 2. **Explainer:** Their major purpose is to explain and make some concepts clear.
 3. **Linker:** These blog posts major purpose is to link some other major sites with the sole intention of sharing something.
 4. **Reviewer:** These posts review a book or a video or a research paper thus distinguishing it from others.
 5. **Short Blurber:** These are very short posts resembling Twitter Feeds.
- More such categorization is possible but for our purpose this is sufficient

2. OBJECTIVES OF THE STUDY

Following are the objectives behind the study:

- The study is aimed at finding out whether youths consider Science Blogs to be more conducive to propagation of science
- To critically analyze the reasons behind the popularity of some science blogs, i.e to find out whether the blogs are popular because of their nature and formats or their contents.
- To develop a detail understanding on the subject by making a critical study of few leading and popular Science Blogs on the basis of different parameters.

3. METHODOLOGY:

The study focuses on the growing significance of science blogs as a major tool of spreading information and awareness related to scientific development and scientific inventions. As a part of research method, the study would employ a close secondary data analysis of various information related to the contribution of different types of science blogs towards the spreading of scientific knowledge and education. Besides analyzing secondary data, the study would also make a detail Case Study of few leading Science Blogs which are very popular amongst the masses and would make a comparative analysis of the blogs on the basis of different parameters like format, content, quality and nature of content, frequency of updating.

4. ANALYSIS:

4.1 Identification and Case Study Analysis of few popular and successful Science Blogs

1. **How Stuff Works- Science** (science.howstuffworks.com/)
2. **The Daily Galaxy** (www.dailygalaxy.com)
3. **IFL Science Editor's Blog** (www.iflscience.com/editors-blog/)
4. **It's Okay to be Smart** (<https://www.youtube.com/user/itsokaytobesmart>)

5. **Overcoming Bias** (www.overcomingbias.com/)
6. **Ask a Mathematician** (<http://www.askamathematician.com/>)

4.2 Analysis of Blogs

- The first thing that strikes one whenever these blog sites are visited is the variety. Science.howstuff works.com/ certainly does not disappoint us in this aspect. A cursory glance at the blog shows articles and items discussing “Are underpasses safe during tornado”, “why Neanderthals became extinct”, and also “How to survive a nuclear attack”. The sheer number and variety is mindboggling. It is highly unlikely that any traditional media outlet can provide so much variety of research at one spot. Any area that a reader/consumer would be interested such as life science, engineering astronomy, chemistry, history of science to what is trending is available. This blog has other qualities that make a blog desirable which is discussed later in this article.
- The Daily Galaxy (www.dailygalaxy.com) is another blog which, when opened at random, yields a plethora of articles. However, they are more organized round a subject i.e. the galaxy. What impresses most is the regularity of posting and the simple arrangement that is easy on the eyes and following is logical and easy. If we study the profile of this blog we find a list of recent activity. For any scientist or scholar this is a great help. To sign in and register is an easy step-by-step process. The blog can be accessed via by major platforms such as Twitter and Facebook. The blogs followers include scientists, scholars and institutions such as automation tooling. The diversity indicates its popularity and its impact on scientific-minded audience who are likely to be opinion-makers.
- In variety and splendour IFL Science Editor’s Blog (www.iflscience.com/editors-blog/) is a connoisseur’s delight. Some may find it a little cluttered but its virtues far outweigh such blemishes. This blog too is linked to Facebook, Twitter and Google+. The current issue contains a hard-hitting and sarcastic editorial lambasting pseudo-science promotion. It covers items on archaeology, linguistics, current news on science and odd but interesting items such as “14 Science Jokes That Will Make You Groan”. The three options Navigation, Contact and Advertising are easy to understand and locate. Like most good blogs the advertising is placed in a manner that will not irritate or jar yet is properly visible. It has all the design advantage of traditional media plus it gives buttons to go deeper into the subject. This is the reason for its popularity. Also, the prestige associated with this blog adds to its importance and attraction for young scientists and scholars.
- It’s Okay to be Smart (<https://www.youtube.com/user/itsokaytobesmart>) This is a science blog that provides awesome videos. However, it is not just in looks. It is also linked with Facebook, Twitter and Instagram. It advertises itself as, “This channel is all about science, the amazing universe we live in, and the pleasure of finding things out. Have a question or an idea? Find us here”. Quite definitely, the blog lives up to its promise. It treats its readers in an easy familiar way and explains intricate scientific problems in a step-by-step clear manner. The navigation is smart too. The current playlists contain 250 videos ranging in subjects like climate science to evolution.
- Overcoming Bias (www.overcomingbias.com/) is a slightly different kind of blog. It appears to be personalized. It is proud of its “group philosophy” in trying to overcome various types of bias. Since most of the postings are on scientific topics and are well argued and thought-provoking it is easy to understand scientists and scholars like it. Besides the navigation is simple. Postings are frequent almost within two or three days. This blog follows a policy of not allowing too many postings by the same author too frequently. This ensures a certain degree of fairness and variety of opinions to be expressed. This possibly is its special attraction. This blog has an easy way to move around in its archives. One can search items in three groups--- Most Popular Posts, Archive By Tags and Achieve By Month.
- In The 20 Best Science Blogs (<https://www.geekwrapped.com/>) contains a favourite blog of many viz. Ask a Mathematician (<https://www.geekwrapped.com/>). What strikes one is the apparent simplicity of answering questions. It uses humor to teach serious issues. One of the questions asked is “Where is all the anti-matter?” After discussing matter and anti-matter it points out that all or nearly all matter in the universe is regular. It concludes that we do not know why it is so and asks the rhetorical question “IS IT NOT INTERESTING?”. One should also notice that the questions in this blog are startling and significant. It shows the questions are well chosen and the reader interest is sustained through interesting but relatively easily understood scientific answers. The questions also deal with a variety of topics i.e. it fulfills a role which earlier popular scientific magazines did.

5. FINDINGS:

The blogs described above shows the myriad variety of topics tackled in the science blogs of modern times. Most scientists and scholars are bound to be attracted by this for in a short space one is likely to find what one is seeking. Another great quality is the regularity of posting which keeps one engaged. Besides many of the blogs are

linked to platforms like facebook, twitter etc thereby drawing a larger audience to interact with. Finally, within blogs there is easy navigability which is most useful when studying various aspects of a problem for certain information or concepts have to be rechecked or revisited.

6. CONCLUSION:

No doubt science blogs have become one of the strongest and very popular medium of expression of scientists and scholars who can readily interact with their peers as well as educated and interested readers. Science Bloggers have emerged nowadays like a strong community of like minded people who tackle their subjects with passion and erudition. This feeling of belongingness on the basis of forming an online community somewhat compensates for the advantages of publishing in the traditional media. Though traditional media reaches out to more people, science bloggers have a audience who are informed and can interact and enhance the views and comments of the bloggers. The paper by making a critical analysis of few popular science blogs tries to establish the fact that science blogs today have become a powerful medium to disseminate scientific information among discerning and influential people who are nowadays getting enticed into the interesting and attractive world of science blogs taking into consideration their variety, richness of quality posts, visual appeal factor through pictures and charts. A detail study on the growing popularity of science blogs reflect that blogs are showing the way to the future of science.

7. RECOMMENDATIONS:

For use of scholars and general public a detailed index of blogs would be most useful. An international effort can be made for this purpose. It would help many to reach out to blogs of one's own field of interest. Organizations like research institutes, universities and governments could come together to build such an index or 'dictionary' as it would be useful to all. Besides, students, especially at secondary level, should be encouraged to explore blogs as this is where new ideas, concepts and designs are now being conceived and most economically accessed. Science teaching has been helped and will be further helped by encouraging people to become avid 'consumers' of blogs.

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