The Science.gov Trivia Challenge

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Abstract. This is a short paper on the "Trivia Challenge" which is a social media initiative to combine science and fun to raise awareness of the Science.gov information portal. Science.gov operated under the Science.gov Alliance and is sponsored by the federal interagency group CENDI.

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Science.gov is a "one stop" web-search portal that combines, through a single search box, more than 60 deep web databases and more than 2,200 selected websites from 15 federal agencies. It offers in excess of 200 million pages of authoritative U.S. government science and research information, free of charge. It facilitates open data by aiding a user in finding information regardless of which agency has funded it.

With more than 10 years of service and a vast reservoir of knowledge, the Science.gov website and Twitter site had relatively small followings in contrast to the knowledge base that is offered. The "Trivia Challenge" campaign was developed by an ad-hoc group of volunteer communicators from various federal agencies to draw people to the website by posting interesting science-based trivia questions using social media (primarily, Twitter, Facebook and Google+) and encouraging users to go to the Science.gov website to find the answers. The program started on June 4, 2013. Each Tuesday and Thursday since that date, an enticing and entertaining piece of science trivia has been posted to the Sci.gov Twitter site, with hashtags to relevant topics and issues. To get the answer, the reader must click on the shortened URL, which takes them to the Science.gov Trivia Challenge landing page, where the question and longer version of the answer can be found. The questions and answers are supplied by the participating Science.gov agencies, so along with increased

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Sample Trivia questions

- Where and when did the deadliest recorded earthquake occur?
- In the 2002 Winter Olympics held in Salt Lake City, Utah, the National Institute of Standards and Technology calibrated the timers for what competition?
- Who was the only NASA astronaut to fly on all five Space Shuttle orbiters: John Young, Sally Ride or Story Musgrave?
- Which Department of Energy laboratory was the birthplace of #video games?

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Science.gov website awareness, each agency gets the opportunity to tout their organization with the use of more detailed information and liberal use of hyperlinks. The questions and answers on the webpage are cumulative, so the reader can review previous "challenges" all the way back to the beginning. Many of the tweets are further amplified by Facebook and Google+ postings on the supporting agency's own social media platforms.

The sidebar gives some examples of the trivia questions posed and shows the intriguing nature of the questions that has led to a very successful program.

To date, the cumulative number of "clicks" on the shortened URL contained in the twice-weekly Tweets is more than 61,000, which is further confirmed by webpage hits and other metrics like Google Analytics and Twitter statistics. This number does not count the users that got to the website via other promotional means, such as the Science.gov homepage, Facebook, Google+, web articles, news releases and other endorsements.

During the first year of the promotional campaign, the number of Twitter followers has increased by nearly 3,000, with a range of 25–40 new followers per week. The number of followers in June 2013 was 1,416; by July 2014, that number was 4,400. Average number of retweets per post is around 25, with a range of 5–50. What has been a real indicator of success is the fact that retweeters include participant agencies such as the Departments of Commerce and Energy, media outlets such as Scientific American and Popular Science, and a host of science writers and educators. There also are numerous "favorite" posts by users.

Several Alliance agency representatives reported increased traffic to their websites and social media accounts due to, and following, Trivia Challenge posts that featured their agency. Because of the program's virtual success and reach, the group increased agency participation and energy from the founding eight to the present 16 agencies in less than six months.

The costs of conducting the Challenge are actually quite modest. All development, planning, coordination, implementation and evaluation were, and are currently conducted in-house by a small, ad-hoc communications team. About 50 Federal working hours were dedicated towards the creation and launch of the Trivia Challenge with an estimated cost of $2,000. Continued program maintenance is estimated at $80 per week for a total-cost-to-date total of $4,480.

The program and results were presented to the national Science.gov Alliance symposium in September 2013 where it was noted by management as an example of inventive and resourceful promotion and marketing. The program was again presented at the International Council for Scientific and Technical Information Annual meeting in February 2014 and as part of a "best practices" case study at the National Association of Government Communicators School in June 2014.

To sum it up, the Science.gov Trivia Challenge has been an extremely successful outreach effort, balancing low cost and low maintenance with a high-impact yield. In short, the results have been anything but trivial!

Links to various sites related to this article are:

- Science.gov website: http://www.science.gov/
- Science.gov Trivia Challenge webpage: http://www.science.gov/trivia
- Science.gov Twitter site: @Sciencegov