

## **Promoting astronomy, solar system science and particle physics to the disengaged: Radio and online outreach**

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### **Overview of project**

Radio advertisements and competitions were used to direct listeners to [www.pembrokeshirephysics.com](http://www.pembrokeshirephysics.com), a website showcasing astronomy, solar system science and particle physics research in the UK. The target listeners for commercial radio in the UK are people who are largely disengaged with science and the project was aimed at this group. The primary objective was to evaluate the cost of this approach. This was £0.09 (€0.10) per listener or £15.05 (€16.70) per website user, excluding project management and creation of online resources.

### **Radio campaign**

A four week radio campaign was commissioned at a local radio station in the UK. The first fortnight of this campaign contained adverts which showcased researchers, their work and directed the listener to the website. In the third week these adverts were supplemented by trailers for a competition. The adverts worked in conjunction with a competition in the final week of the project.

### **Website**

A website was constructed which capitalised upon the inspirational nature of astronomy, space science and particle physics research. It was built around five key themes:

- (1) Physics. Explanations of frontier science, which highlighted instruments and missions such as Venus Express.
- (2) Personal stories. Profiles of ten young scientists which described their work, its importance, the opportunities they have and how they reached this point in their careers.
- (3) Blogs. Written by four young scientists.

- (4) Experiments. Four simple experiments that the user could conduct themselves, such as estimating the energy of the northern lights from real data.

- (5) Links to other websites.

Analysis of traffic to the website during the radio campaign showed that the number of visitors were linked to radio advertising on weekly timescales. The greatest number of visits occurred when both the advertising campaign and competition were running simultaneously. A detailed evaluation suggested that a similar number of visits could be achieved using a three week radio campaign where the first week comprised adverts only, the second week featured adverts and competition trailers and the final week included adverts, competition trailers and a competition. On daily timescales there was no significant correlation between either the timing of adverts or between the hour-by-hour variation in listener numbers and website use. The most popular pages were those profiling researchers and the competitions. The most popular science pages were "Are we alone in the universe?" and "How does the Sun effect the Earth?".

A series of focus groups were conducted to evaluate the website, comprising people in numerous forms of employment, the unemployed, retired, students, the science-inclined public and those previously disengaged with science. The response of school students was assessed through a questionnaire. The results were largely positive, with most participants describing the website as informative, interesting and clearly presented. Most significantly people in every group were more likely to engage with science in the future. 78% of participants said they were more likely to watch a science documentary and 52% said they were more likely to visit a science centre. No

participants said they were less likely to engage in these activities. Participants were particularly keen on the personal stories and made several suggestions for improvements including more interactive elements, more background information and a discussion of the religious and philosophical questions raised by this research.

#### **Extension to a regional or national scale**

A feasibility study was conducted to estimate the cost of running this project on a regional or national basis. The cost of a regional campaign, targeting approximately three million people was £0.05 (€0.06) per listener or £8.24 (€9.14) per website user. A heavily modified version, which did not include the competition element of the radio campaign, could be run on a national basis in the UK for £0.007 (€0.008) per listener or £1.75 (€1.94) per website user.

#### **Additional information**

Full details of this project and evaluation reports are available online at [www.pembrokeshirephysics.com/sharing](http://www.pembrokeshirephysics.com/sharing)

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