Advertising campaign on a major internet search engine to promote colorectal cancer screening

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To attract internet users to an educational website on colorectal cancer, the US Centers for Disease Control and Prevention (CDC) posted advertisements on Yahoo!, an internet search engine used by 232 million people worldwide.¹ The six week campaign included 12 advertisements in four formats ("east module," "north banner," "large rectangular," and "streaming video large rectangular"—see bmj.com for examples) posted in locations throughout Yahoo!. Exposure to the advertisements was limited to health professionals and selected lay populations. Through a hyperlink, a software function that transfers users from one internet location to another,^{2,3} those who selected or "clicked" on an advertisement were transferred to the SFL website (Screen for Life: National Colorectal Cancer Action Campaign) (www.cdc.gov/cancer/screenforlife).^{4,5}

The first phase of the campaign on Yahoo! lasted five weeks, from 29 April to 2 June 2002, and the advertisement space was paid for by the CDC. In the second phase of the campaign, which lasted one week (17-23 June 2002) the space was donated by Yahoo! as part of the "six weeks for the price of five" incentive deal that the CDC had accepted. This report analyses the traffic to the SFL website generated by the campaign, and the associated costs.

Methods and results

From the moment the first advertisement was posted on Yahoo! we tracked the number of times advertisements were displayed ("audience exposures") and the number of visits to the SFL website that resulted from use of the hyperlink in the advertisements. For comparison data, we also

monitored daily visits to the website for three months before and after the campaign, so the whole monitoring period lasted 1 March to 31 August. We tracked campaign costs using vendor invoices.

During the six week campaign, the advertisements were displayed 29 673 418 times. Of these audience exposures, the CDC paid for 25 495 000 (first phase); Yahoo! donated the rest (second phase).

In total, 26 697 visits to the SFL website resulted from use of the hyperlink in the advertisements. The mean number of daily visits during the pre-campaign period was 418; that number tripled (to 1282) during the first (CDC funded) phase and doubled (to 992) during the second (donation) phase (figure). Visits resulting from use of the hyperlink in the advertisements accounted for half of the total website traffic during the six week campaign. By using a "bookmark" or hyperlink established on a personal computer, some visitors continued to enter the SFL website through the hyperlink in the advertisements during periods when the advertisements were not posted on Yahoo!; bookmarked entries accounted for 6% of visits during the break between the two campaign phases and 1% of visits during the post-campaign period.

The total cost of the campaign was \$64 627 (£35 400; €52 500)—\$22 127 for converting existing SFL materials into 12 internet advertisements and \$42 500 for advertising space on Yahoo!. Thus, the total cost per audience exposure was \$0.002 and the total cost per visit resulting from use of the hyperlink in the advertisements was \$2.42.

Comment

The campaign generated more than 26 000 visits to the SFL website at a cost of \$2.42 (£1.33; €1.97) per visit. Campaign costs were minimised by developing advertisements that paralleled existing SFL materials—for example, we converted SFL's television public service announcements and print materials into internet advertisements. Also, at the time of this campaign, advertising space on Yahoo! was relatively inexpensive, and Yahoo! donated millions of audience exposures to the campaign as an incentive to secure the account. Online advertisements are a viable strategy to attract internet users to health promotion websites.

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Mean number of visits per day to the Centers for Disease Control and Prevention's "Screen for Life" website, by campaign period, 2002

Competing interest: CSF is employed by Yahoo!, the for-profit internet search engine that CDC had a contract with during this campaign. CSF's professional compensation includes Yahoo! stock. The results of this study could potentially benefit Yahoo! by attracting new advertisers.

Ethical approval: Not needed.

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Critical care medicine mailing list: growth of an online forum

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In 1994 Dr David Crippen created the critical care medicine mailing list to provide an internet forum for healthcare professionals. The list was the first of its kind dedicated to the discussion of the holistic care of patients in intensive care units. The list's website logs about 10 000 hits a year, and its membership includes over 1000 physicians, nurses, pharmacists, researchers, and allied healthcare professionals across six continents.¹

Benefits of information sharing

Because of its accessibility, the list has given voice to a diverse group of multidisciplinary healthcare providers for the first time. This networking potential facilitates the reinforcement of similar ideas and standards of practice. Other unforeseen applications have developed. During the recent outbreak of severe acute respiratory syndrome (SARS) in Asia, list members initially broke the emerging story from Hong Kong in real time.² The list has produced other tangible results. Crippen and others recently published the first multinational reference on end of life care using list members as resources.³ We have identified six peer reviewed articles that have resulted from interactions on the list.⁴⁻⁹

Difficulties associated with information sharing

Information security

The formation of any electronic forum introduces security and privacy issues. The list is a potential target for commercial or political organisations. During the SARS outbreak, many media organisations became subscribers to the list.² Members were forced to become more circumspect in their observations to avoid media manipulation. The potential for spontaneous, unbiased information was diluted commensurately. The Caldicott report has tried to develop general principles of confidentiality in electronic media.¹⁰

Medical legal concerns

The internet is an undefined area in relation to medical liability. For example, if a doctor solicits an

online opinion on a patient's care, this action may create an agency on behalf of the patient and subject the doctor who offers that opinion to liability.¹¹ Likewise, if a doctor offers an opinion on standard of care, that statement may be archived and accessible by others. If that doctor is later sued for negligence or designated as an expert in a negligence case, the opinion they gave earlier in the context of a different case may have impeachment value.¹²

The future

Online mail resources continue to grow. Future directions might encompass multinational databases for evaluating new treatments or reporting critical incidents. As these online services grow, critical evaluation and validation of opinions may be necessary. Other possibilities for educational development might include virtual conferences, workshops, or the rotation of list members between different geographical areas.

The Critical Care Medicine Listserv can be found at www.pitt.edu/~crippen. All the authors are members of the list. Contributors: All authors collaboratively conceived the idea for the article; SRG, PH, and ALDeW did the literature search; and ALDeW, PH, and SS wrote the article. SRG is the guarantor.

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