The Nature of Tobacco and Cigarette Information on the Internet

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Abstract
Every day thousands of youth light a cigarette and try tobacco for the first time. Many of these youngsters will become addicted to nicotine and will have their quality of life lessened and die of smoking related illness. Many influences come to play on a youth’s decision to use tobacco or not and may include personal factors, role models, peer influences, advertisements, and available information on smoking and tobacco. The Internet, specifically the World Wide Web (WWW), has become a popular information resource and leisure activity over the last decade. Many now regularly search the WWW for information on a variety of topics. The young are especially enamoured with the WWW and thus the information gleaned by the young off of the WWW could prove to be especially influential. The present study examined the nature of tobacco and cigarette information on the WWW. It was determined that the majority of information on tobacco and cigarettes readily found using search engines was commercial in nature and promoted the use of tobacco. Indeed, few sites were located that actively discourage smoking. Recommendations are provided regarding how to help youth access more appropriate WWW resources relating to tobacco and cigarettes.
Every day thousands of youth light a cigarette and try tobacco for the first time. Many of these youngsters will become addicted to nicotine and will have their quality of life lessened and die of smoking related illness (Melendez, 1999). There are many reasons why youth use tobacco and it is likely that prior to their actual use they engage in an evaluation process which ends in their decision to use tobacco or not. Many influences come to play on a youth’s decision to use tobacco or not and may include personal factors, role models, peer influences, advertisements, and available information on smoking and tobacco (Geldard & Geldard, 1999). The Internet, specifically the World Wide Web (WWW), has become a popular information resource and leisure activity over the last decade. Many now regularly search the WWW for information on a variety of topics (Davison, 1997; Grohol, 2000; Melendez, 1999; Sacchetti, Zvara, & Plante, 1999). The young are especially enamoured with the WWW and thus the information gleaned by the young off of the WWW could prove to be especially influential (Melendez, 1999; Pelling 2004).

The WWW provides its users with a convenient way of accessing information while allowing others to disseminate a variety of information. As stated by Sacchetti, Zvara, and Plante (1999, p. 1117) “It holds limitless potential as a teaching tool.” However, while anyone can create a web page and publish on the WWW, few are able to accurately evaluate the information they obtain. The present study explores the general nature of tobacco and cigarette information on the WWW, assesses the impact of this information, and makes suggestions regarding tobacco related information on the WWW.

General Internet Overview
To understand the logic behind the methodology used in the present study a basic understanding of the WWW is required. Thus, some basic information on the WWW is provided here as a brief introduction for the uninitiated or review for those who are Internet savvy.

The Internet is used for advertising, as an information source, and as a communication tool. Thus, the Internet has become an important part of the general media over the last decade. The Internet is used by adults and particularly youth and has the potential to influence perception and one’s knowledge base.

The most popular but least interactive of online resources is the World Wide Web (WWW). Through the WWW one can easily gain access to a variety of information, some not very valuable. The WWW is comprised of web sites or home pages that have addresses called Uniform Resource Locators (URLs). People explore the WWW via Web Browser software such as Netscape and Internet Explorer. Using this software one can type in various addresses to go to those homepages or “click” on highlighted text or graphics called links. Clicking on links and going from web site to web site is surfing. However, most WWW users will not blindly surf the WWW but will use search engines to find specific information. Using a search engine is the most popular way of getting information off of the WWW (Grohol, 2001).
Search engines use software called spiders or robots to find relevant web pages. To use a search engine one types in a few words and clicks on the search button. Pages are returned in order of relevancy which is determined different by different search engines but usually involves the use of the words in your search on the various web pages found. Search engines use boolean logic just like library searches (terms such as and/or/not can be used in searches) (Grohol, 2000).

**Method**
The WWW was searched separately for the terms (a) tobacco and (b) cigarettes with three different search engines: Alta Vista (http://www.altavista.com/), Google (http://www.google.com/), and Go.com (http://www.go.com/). The search engines used were utilized because they were the most highly rated by Grohol (2000), in his review of search engines, as providing useful and relevant information. From each search the top ten most relevant sites obtained were examined. Thus, sixty web sites were obtained and examined.

The web sites obtained were examined for origination, form, and basic content. Specifically, web pages were assessed regarding their creator (commercial, government, and not for profit), number of printed pages of information, appearance (text only or text and pictures and if the pictures were likely to appeal to youth), and if the pages were commercial in nature whether price information and warnings about the dangers of tobacco use were present.

**Results**
Out of the sixty sites examined, forty-eight were unique and twelve were duplicates in which the different search engines found the same web pages. Out of the forty-eight unique web pages 30 (62.5%) were commercial in nature and sold tobacco, cigarettes, and quit smoking programs. Six of the sites were governmental (12.5%) and twelve originated from not for profit agencies (25%).

For the forty-eight unique sites there was a total of ninety-nine pages of information. The web pages ranged from one to seven pages of information with an average of two pages of information per site (Mean 2.1, SD 1.3). Twenty-eight of the web pages contained pictures (58%), including five that youth would find engaging. Twenty sites were pure text (41.6%).

**Commercial Sites**
Commercial web pages averaged 2.2 pages (SD 1.5) in length (range 1-7). Of the commercial web sites obtained 66.6% contained pictures (20 sites), including four that youth would find appealing. Ten web sites contained pure text (33.3%). Most of the pages sold tobacco but four sold quit smoking products and one sold drug testing equipment. Twelve (40%) of the pages contained price information and three had warning regarding the dangers of tobacco. The majority of information examined appeared to be geared towards adults, but written in simple English.
Government Sites
Government web pages averaged 1.8 pages (SD .9) in length (range 1-3). Of the governmental web sites obtained 33.3% contained pictures (2 sites), none included pictures that youth would find appealing. Four pages contained pure text (66.6%) and one page contained predominantly legal information. The majority of information examined appeared to be geared towards adults and quite complex in nature.

Not for Profit Sites
Not for Profit web pages averaged 1.8 pages (SD.8) in length (range 1-3). Of the not for profit sites obtained six contained pictures (50%), including one youth appealing picture. Six pages contained pure text (50%) and three of the pages contained predominantly legal information. One page contained quit smoking information. The majority of information examined appeared to be geared towards adults.

Discussion
Based on the results of this study, it would appear that the majority of web information to be found by searching the two terms (a) tobacco and (b) cigarettes is commercial in nature. Moreover, the commercial information is likely to contain pictures, contain pictures that are attractive to youth, and lack warnings regarding the dangers of tobacco. Even the majority of quit related information discovered on the WWW was commercial in nature. Additionally, the majority of governmental and not for profit sites examined did not contain pictures, or pictures attractive to youth, and tended towards legal and complex information. As a result, the information readily found by searching the WWW for tobacco and cigarette information could be said to be promoting the use of cigarettes and tobacco, as individuals searching the WWW for such information are likely to be confronted with information on the ease of cigarette purchase and attractive sites related to the business of tobacco versus easily understandable information regarding the dangers of same.

Recommendations
A greater and more appealing not for profit and government presence is required on the WWW regarding tobacco and cigarettes to promote tobacco abstinence and accurate information. Additionally, having governments mandate visible warnings regarding the dangers of tobacco on commercial web sites could also help warn web explorers of the dangers of tobacco. Specifically, additional information regarding quitting smoking and tobacco appears needed along with youth positive anti-tobacco information. Finally, as searching for information on tobacco and cigarettes is not likely to be fruitful, it is suggested that governments and not for profit agencies advertise specific web sites relating to tobacco and cigarette information in other media. If this occurs it is possible that youth will seek out such sites for information versus search the WWW in a haphazard manner that the current results indicate could result in information hazardous to one’s health. Such sites could include those reviewed by Melendez (1999) or those deemed appropriate for promotion in specific communities.

**References**


