



Darn Those Pop-Up Ads! They're Maddening, But Do They Work?

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They create as much clutter as those slippery advertising inserts that fatten a Sunday newspaper and are as inescapable as humidity in August. But just how annoying are those pop-up ads that appear unwanted on your computer screen as you cruise the Internet? How effective are they at selling stuff? And do they raise privacy issues in the same way that e-mail spam does?

E-commerce experts at Wharton and elsewhere say pop-ups are not universally loathed and irrevocably worthless. But collectively they can indeed be a nuisance. Pop-ups are a lot like other forms of advertising: If they are presented to a consumer at the wrong time and in the wrong way, they can be a big-time turn-off. But if a consumer sees them at the right time, they can provide useful information, or at least be entertaining and non-offensive.

Wharton marketing professor [Patricia Williams](#), who teaches a course on electronic commerce, says there is not enough research to measure the effectiveness of pop-ups. "The only data I've seen shows that pop-up ads are way at the bottom of the list in terms of popularity [relative to other forms of advertising]. People prefer newspaper, magazine and television ads. People have a more positive attitude toward the least interruptive ads. The Internet is a place where consumers don't like to be interrupted." She adds that some research she has seen asserts that consumers think pop-ups are actually worse than telemarketing calls. This would be something of an achievement, since telemarketing calls have attained the distinction of being perhaps the most unwanted and intrusive sales attempts in marketing history.

But Williams says she does not necessarily believe those studies. "My intuition tells me that ads that have more a traditional advertising format are viewed differently than telemarketing or spam," she says. "One of the things marketers are concerned with is how persuasion works and how people judge the tactics used by persuaders and whether those tactics are appropriate. Invading my [e-mail] mailbox or my home with something I don't want is an inappropriate tactic in general." By contrast, "consumers feel that when they watch television, ads will appear. It's part of the consumer process. My intuition is that pop-up ads are more like television ads that we're used to."

"I find that pop-ups really polarize people," says David Schrader, director of strategy and marketing for the Applications Solutions Group at Teradata, a division of NCR Corp. that helps businesses collect and analyze data. "For people who have to get rid of them, they're just clutter. They start bordering on the equivalent of spam."

"Pop-up ads are probably the only form of advertising that has spawned a whole industry designed to help you get them off your screen," says David Croson, visiting professor of digital strategy at the Massachusetts Institute of Technology and a researcher at MIT's Center for eBusiness. "I think pop-up ads have created a really strong negative response."

An Experiment in Effectiveness

[Wendy Moe](#), who earned a Ph.D. at Wharton and now teaches at the McCombs School of Business at the University of Texas at Austin, has conducted a field experiment testing the effectiveness of pop-up ads in



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certain circumstances. The results are outlined in a paper titled “Should We Wait to Promote?: The Effect of Timing on Response to Pop-Up Promotions.”

Moe found that pop-up ads do not necessarily annoy web users; the level of annoyance depends on the situation. For the study, Moe offered pop-up ads to users of a fairly well-trafficked content site. For some, the ads were made to pop up very early in the session. For others, there was a delay before the pop-up was offered.

“The effects varied depending on what the user’s purpose at the site was,” Moe explains. “For users who sought out fairly in-depth information from the site, the added pop-up basically overloaded them with information, and as a result they exited the web site earlier than they probably would have otherwise. For those who were browsing at the site and were not seriously seeking out lots of information, the pop-up was a welcomed interruption to their browsing activities. Some pop-ups lengthened these users’ stay at the site.”

Moe adds that her study turned up other interesting results, consistent with her main findings, concerning the page on which the pop-up was offered. People who were merely browsing tended to respond more positively when the pop-up appeared at a time when they were viewing a ‘content’ page -- that is, a page with product-specific information -- compared to a ‘gateway’ page, which primarily contains links to content pages. By contrast, in-depth searchers were even more likely to be overloaded with information when these pop-ups were offered on content pages. Thus, their response was highly negative both in terms of click-throughs, which are a way to measure Internet traffic, as well as the number of times they decided to exit the site.

Pop-ups, which appear in windows that appear in the foreground of a computer screen and block parts of the main page that a person wants to view, are just one of a number of promotional formats found on the web. Other types, mentioned in Moe’s paper, include “banners,” which are similar to standard print ads; “pop-unders,” which appear in windows that open in the background of the screen and only become visible when the user closes the main window; “bridge pages,” which are pages to which a user is redirected when navigating from one page to another; and “in-page animations,” which use pictures and sound like TV ads and, like a pop-up, block the page a person is trying to view.

[Dan Hunter](#), a professor of legal studies at Wharton who conducts research on e-commerce, agrees that the degree of annoyance at pop-ups will differ depending on the temperament of the user and the circumstances. “Apart from the degree of tolerance of any individual user, I think that there are two aspects that affect degree of annoyance: speed of connection and whether the pop is up or under,” he says.

“As to the first, if you’re on a slow dial-up, the pop-ups are a major hassle because they use valuable bandwidth that slows the download of valuable stuff, especially since the pop-ups tend to be flash-enabled or use fairly large graphics files. As for the second aspect, pop-ups are more intrusive than pop-unders. Though at one point it seemed that pop-unders were going to be used more than pop-ups (because of the perceived difference in intrusion) I’ve noticed that this has now reversed. I suspect because the advertisers were worried that you just shut the browser down without ever seeing the pop-under. Internet advertising has been such a roller-coaster ride that any small disincentive is enough to tip the balance, and so I’ve seen more pop-ups recently.”

Wharton professors say pop-ups may be relatively new, but they have characteristics not unlike those of other forms of traditional advertising. In the final analysis, all advertising is an imprecise science. No one knows with any degree of consistency how well any ads increase the sales of products and services. Sometimes they help; sometimes they don’t. The better ones can create a nice positive buzz; the poorer ones can be embarrassing.

“The pop-ups that are more effective are the ones related to the site you’re looking at,” says marketing

professor [David Reibstein](#). “Some advertisers use pop-ups everywhere, but they may be totally irrelevant to you at the time. If I want to buy a new car and there’s a pop-up of a Volvo, it’s much more likely to be effective.”

Marketers must find something useful in pop-ups because they continue to use them, as they do telemarketing calls. “The reason we end up getting such a large number of phone calls at home is because it’s economically worthwhile to do,” Reibstein says. “They wouldn’t be calling us at home if it didn’t pay economically. The best solution to get rid of those annoying phone calls is not to respond. But there enough people that we continue to be harassed. Pop-up ads are so cheap to do. What’s it cost for me to add another million of them? It’s inconsequential, so we’re being bombarded. Given the cost to the provider, they’re going to continue offering them. There’s not an easy way around that.”

Billions and billions

Pop-ups, which cost just pennies each to put online, are ubiquitous. During the first seven months of 2002, advertisers launched some 11.3 billion pop-up-ad impressions on the web, according to “Spotlight on Online Advertising,” a report published in August 2002 by Nielsen/NetRatings. Most of the pop-ups originated from a handful of advertisers: 60 advertisers accounted for 80% of all pop-ups.

According to another report by Nielsen/NetRatings -- “The State of Online Advertising,” published in February 2003 -- pop-ups still represent a relatively small fraction of online ads, even though they continued to grow in use from 2001 to 2002. As of the fourth quarter of 2002, pop-ups comprised 3.5% of all online ad impressions, up from 1.9% in the year-earlier period.

“Mitigating the rapid growth of pop-up advertising is the fact that advertisers and websites have become increasingly aware of negativity surrounding the delivery mechanism,” according to the report. “Some notable websites have ceased offering pop-ups as an ad solution, and a few online services have gone as far as offering pop-up-blocking software with their service.”

The report added that the entertainment industry, such as casinos, used the most pop-ups as a percentage of total industry impressions in the fourth quarter of last year. Hardware and electronics advertisers were the second heaviest users of pop-ups. “One person’s dream can be another’s nightmare, and such is the case with pop-up advertising,” the report says “Advertisers get a kick out of the extensive creative space afforded by launching a new browser window, but web surfers often find themselves playing a game of cat and mouse, chasing down errant windows.”

Nonetheless, figures compiled by DoubleClick, a provider of marketing tools for advertisers, direct marketers and web publishers, show that the use of “rich media” in general continues to grow. Rich-media ads represented 31.7% of all online ads in the second quarter of 2003, up from 17.3% in the first quarter of 2002. DoubleClick defines rich media as pop-ups, dynamic ads that move across web pages and any ads that include Macromedia Flash technology.

Feedback and Choice

Schrader of Teradata would like to see marketers engage in what he calls “green marketing” -- doing all they can to clean up an increasingly cluttered online advertising environment. “Pop-up ads are like litter: you have to clean them up,” he says.

Schrader also faults marketers for not using online technology to collect information on the kinds of ads consumers wish to see and when they wish to see them. Advertisers could, for example, use a simple drop-down menu on a pop-up ad to elicit comments from Web users as to what they found to be positive

or negative about the ad.

“I cannot for the life of me understand why people don’t use the interactive nature of the web,” Schrader says. “Marketers are missing the boat in terms of not capturing the negative feedback. . . .They’re not solving the problem of getting the right ad to the right person at the right time.”

Schrader is preparing to write an article about how marketers of all stripes, online and offline, must recognize that they have a better chance of success if they allow consumers to take control of the media messages that make their way through consumers’ “cocoon.” Website and cable TV providers should periodically ask their customers questions about which advertisements they would be interested in seeing. If providers knew a customer wanted to get more information about a possible vacation to Europe or was a fan of clothing from J. Crew, they could make sure that he or she did not see ads for trips to Las Vegas or for trousers from Sears.

“Instead of marketing people making pure guesses and blasting ads out there, consumers [should be able to create] permeable cocoons and let certain kinds of advertising through,” according to Schrader. “It’s good for consumers because it would be stuff they’re interested in. It would also be good for advertisers; they’d spend less money reaching people with higher potential conversion rates.”

Croson of MIT disagrees. “The incentive for any given online marketer to do that is limited, just like the incentive for any given mass mailer is not very high to figure out who they shouldn’t be sending mail to,” he says. “It costs next to nothing to add pop-ups on your screen. Sure, J. Crew would know I want to see lots of detailed pop-up ads from them, but Sears couldn’t care less that I hate their product and never want to hear from them again. They know I already hate them. They’re not jeopardizing any relationship with me, so why should they care?”

As things stand, consumers can take steps to keep pop-ups off their screen by installing one of many anti-pop-up software programs readily available on the Web. Some, which can be downloaded for free, eliminate virtually all pop-ups. Others, which cost \$20 or \$30, give the user greater control in being selective as to the kind of pop-ups to be killed off.

“Basically, what a pop-up ad does is give instructions to your browser to do something special,” says Croson. “What the pop-up-ad-killing software does is tell your browser to ignore those instructions. The downside is that pop-ups sometimes do good things. When you’re at a brokerage website, you want that pop-up window to tell you your trade has been executed. So this kind of software does reduce the functionality of your browser.”

Potential Regulation?

Reibstein says he believes it is possible that the federal government could step in to regulate pop-ups in the way it has taken steps to curb telemarketing calls and spam. Earlier this year, the government announced the creation of a website (www.donotcall.gov) that consumers could register with in order to have their names removed from telemarketing call lists. The Federal Trade Commission has also taken steps to halt fraudulent spammers.

“As we hear more concern about spam, pop-ups will get lumped together with spam and there will be negative reactions and calls for restrictions to be imposed ; it’s around the corner,” says Reibstein. “All marketers really want some self-regulation to happen. They’d prefer that rather than have government step in. I would be surprised if we do not see some strong efforts on self-regulation. If we don’t do it, it’s going to be done to us.” One possible self-policing mechanism, Reibstein suggests, would be for producers of pop-ups to carry a kind of seal of approval.

But Wharton’s Williams says that pop-ups, as annoying as they may be, do not typically lend themselves

to fraud the way spam does, and she does not foresee any movement to curtail the use of pop-ups. "My sense is when it comes to advertising on the net, the government has its hands full controlling unwanted e-mails and spam, and I don't see them moving to set formats for other types of ads. Spam is considered much more problematic and the rate of fraud with those is much higher. My sense is that spam is a much bigger or noticeable problem for the government than pop-ups ads."

Hunter says that pop-ups are not an invasion of privacy in any meaningful sense and he doubts that regulators are interested in curbing their use. "I haven't seen either regulatory movements or consumer group concern," he says. "Though it's certainly a possibility, the response on the part of regulators to really serious net problems [such as spam and privacy issues dealing with the collection of information about consumers] has been fragmented, slow and mostly ineffective. I am doubtful that, if we can't fix spam and privacy intrusions, that we're going to see regulatory activity on this type of advertising."

Instead, it is more likely that advertisers themselves will come to see pop-ups as counterproductive. "Unlike spammers, most advertisers who use pop-ups need a better than a one-in-a-million response rate," Hunter notes. "So they'll need to find advertising mechanisms that are more about permission and less about destroying the user's experience of the website." Williams and Reibstein agree that the marketplace is the mechanism that tells marketers they had better use pop-ups carefully. According to Williams: "There's a movement in the marketplace to say, 'Maybe pop-up ads aren't right for us; if we continue to overload consumers with pop-up ads we may drive them away.'"

Says Reibstein: "One real danger is if people get annoyed [at pop-ups], they may not want to come to your website anymore. If you're running a website, you have to be careful as to how much you abuse your customers."

Spam, telemarketing calls and pop-ups are all examples of communications tools that irk people. But Hunter makes an interesting point that pop-ups are far less egregious and far less harmful to the technology that allows them to be deployed. Both spam and telemarketing involve the long-term "destruction" of a communications mechanism -- e-mail and telephones -- as a result of reduced transaction costs, he explains. As the financial costs of communication approach zero, the social cost becomes immense.

"You can't use your email account to get important mail, you don't want answer the phone at all anymore," Hunter says. "Pop-ups are intrusive, but they stem from a site that you're interested in. If The New York Times' site continues to besiege me with pop-ups when I'm reading their content, then I can switch to the Philadelphia Inquirer site. Competition means that some sites will gain a competitive advantage from not using pop-ups, and so the inevitable destruction of the resource is mitigated."

Crosen notes that although pop-ups will not win many popularity contests, they may not be destined to disappear altogether. "Being annoying does not necessarily translate into bad advertising. Door-to-door sales people are pretty intrusive. Just because it's intrusive doesn't mean it can't be effective."

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