The cat-and-mouse game of blocking digital ads

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Credit: Northeastern University

If you were using Facebook on a desktop last week, you may have noticed that your ad-blocking software was being blocked. That was a move by Facebook, which said it was updating its approach to ad

blocking while also expanding the tools it gives people to control their advertising experiences. (A Facebook vice president explained the moves in a blog post.)

We asked two Northeastern faculty members—assistant professors Yakov Bart in the D'Amore McKim School of Business and Christo Wilson in the College of Computer and Information Science—to explain how new strategies and technologies are changing the digital landscape for users, content providers, and advertisers. Bart is an expert in digital marketing and social media, while Wilson's research lies at the intersection of Big Data, security, and privacy.

According to one report, the number of people using desktop ad blockers has reached almost 200 million has reached almost and continues to rise. Given this trend, and moves by Facebook and others in response, how would you assess the current dynamic between online content consumers and online advertisers? What are the likely future developments?

Bart: This move was not surprising. Facebook, like most other social network sites and digital publishers, relies heavily on advertising revenue. Industry experts estimate that publishers might be losing up to 30 percent of their ad revenue due to ad blocking—and that adds up quickly for Facebook, one of the largest digital publishers today. Many traditional publishers, such as *Forbes*, *Wired*, and The *New York Times*, have already rolled out initiatives designed to stop ad blocking, mainly by preventing users of ad-blocking software from accessing their sites. However, this method negatively disrupts the browsing experience of ad-blocking users, who are suddenly forced to make an explicit choice between switching off their ad-blocking software or losing an opportunity to consume publisher's content. Consequently, if a large number of users choose the latter, publishers would continue losing traffic and face a sharp decrease in advertising revenue as a result.

Interestingly, Facebook decided to get around this problem by changing how ads are rendered in a desktop browser, so that current ad-blocking software is not able to tell the difference between ads and other page content, and thus not able to block the ads. This way, even ad-blocking users do not have to make this cease-or-leave choice, but would simply start seeing ads when logging in to Facebook, leading to a less disruptive experience overall.

In the future, it is likely that makers of ad blockers will continue perfecting web-based techniques to filter out ads. However, this will probably be hard to achieve without substantially (and negatively) altering the seamless, personalized, and optimized content that users are accustomed to seeing. So, ultimately, consumers will have to choose. Some will prefer a seamless, user-friendly interaction with publishers and social network sites, and accept the cost of being exposed to ads, while others may sacrifice some elements of that experience—or even reduce their content consumption by not visiting anti-ad-blocking publishers—but enjoy zero ad exposure. Publishers and makers of ad-blocking software will continue working to convince consumers to join the former (publishers) or the latter (ad blockers) camp. I look forward to observing how this tug-of-war unfolds in the next couple of years and studying the consequences for consumers, publishers and marketing industry overall.

According to _Wired_, Facebook said it is changing the way it renders ads on the desktop version of its website, so ad blockers won't be able to distinguish between ads and the rest of the content on the page. A New York Times article also noted this would be "a costly and laborious process." As technology continues to evolve and companies get savvier, what are the most significant challenges facing both developers creating ad-blocking software and parties such as Facebook who are developing workarounds? And does one side have the upper hand?

Wilson: Today's ad blockers are actually pretty simple: they come with a list of "patterns," and whenever your browser tries to connect to a URL that matches one of these patterns, the blocker stops the connection. For example, DoubleClick is a major online advertiser owned by Google; there's no reason for the average person to ever visit doubleclick.com, so your ad blocker has a pattern that stops all connections to that URL. Modern ad blockers can have tens of thousands of these patterns—the one in my browser has 56,000—in order to block as many ads as possible.

It's not exactly clear at this point how Facebook plans to try to evade ad blockers, but the general idea is that they intend to make ads look just like all other content in the news feed. In theory, if stories and ads are indistinguishable, then I can't write a pattern that will match and block ads without also matching and blocking actual content. In practice, though, there are federal rules that require disclosure of ads: they need a little icon, or some fine print that says "sponsored content." Blocking software can detect these tiny differences and use them to block ads.

Overall, this is a cat-and-mouse game between blockers and advertisers that will continue to escalate, but blockers definitely have the advantage. Developing evasions is costly, whereas developing patterns to block ads is comparatively cheap. And at the end of the day, users are in control of their browsers; if users choose to adopt sophisticated ad-blocking software, there's very little that advertisers can do about it.

In addition to blocking ad blockers, Facebook also gave its users greater power to pick and choose what ads they want to avoid, saying that this would improve the consumer experience. However, in your recent research, you've shown that highly targeted ads based on consumer preferences may not lead to higher profits for companies. Is there a "happy medium" in which consumers and advertisers can both get what they want?

Bart: Advertising messages from a firm may be tailored (i.e., personalized) to what the consumer prefers, as companies are legally allowed to practice persuasive puffery. However, the mathematical model my collaborator, Pedro Gardete at Stanford University, and I have developed, shows that most personalized ads are likely to be ineffective because consumers may worry that they are being exploited. Therefore, companies—and Facebook advertisers in particular—may benefit from collecting less data from consumers while simultaneously letting them know it by being transparent about what information is collected, what information isn't, and why. We show that the more mass marketing a business does, the less information it should collect about consumers. Similarly, consumers do not benefit from disclosing their tastes in a mass-market setting. The exception is that, when you look for niche products, you might be better off revealing your likes and dislikes, so that companies that specialize in niche markets can find you and offer products that match your tastes.

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