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A View from **Emerging Technology from the arXiv**

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## Racism is Poisoning Online Ad Delivery, Says Harvard Professor

Google searches involving black-sounding names are more likely to serve up ads suggestive of a criminal record than white-sounding names, says computer scientist

February 4, 2013

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“**Have you ever been arrested? Imagine the question not** appearing in the solitude of your thoughts as you read this paper, but appearing explicitly whenever someone queries your name in a search engine.”

So begins Latanya Sweeney at Harvard University in a compelling paper arguing that racial discrimination plagues online ad delivery.

Many people will have experience Googling friends, colleagues and relatives to find out about their online presence—

Ad related to latanya sweeney ⓘ  
**Latanya Sweeney Truth**  
[www.instantcheckmate.com/](http://www.instantcheckmate.com/)  
Looking for Latanya Sweeney? Check Latanya Sweeney's Arrests.

Ads by Google  
**Latanya Sweeney Arrested?**  
1) Enter Name and State. 2) Access Full Background Checks Instantly.  
[www.instantcheckmate.com/](http://www.instantcheckmate.com/)  
**Latanya Sweeney**  
Public Records Found For: Latanya Sweeney. View Now.  
[www.publicrecords.com/](http://www.publicrecords.com/)  
**La Tanya**  
Search for La Tanya Look Up Fast Results now!  
[www.ask.com/La+Tanya](http://www.ask.com/La+Tanya)

the websites on which they appear, their pictures, hobbies and so on.

Screenshot of a Google ad.

Sweeney's interest is in the ads that appear alongside these results. When she entered her name in Google an ad appeared with the wording:

“Latanya Sweeney, Arrested? 1) Enter name and state 2) Access full background. Checks instantly. [www.instantcheckmate.com](http://www.instantcheckmate.com)”

This is suggestive wording. It suggests that Latanya Sweeney has a criminal record the details of which can be accessed by clicking on the ad. But after hitting the link and paying the necessary subscription fee, Sweeney says she found no record of arrest.

What's interesting about this is that Sweeney's first name is also suggestive—that she is black. The question Sweeney asks is whether a similar search with a name suggestive of a white racial profile also serves up ads mentioning arrest records.

The answer is a powerful wake up call. Sweeney says she has evidence that black identifying names are up to 25 per cent more likely to be served with an arrest-related ad. “There is discrimination in delivery of these ads,” she concludes.

Sweeney gathered this evidence by collecting over 2000 names that were suggestive of race. For example, first names such as Trevon, Lakisha and Darnell suggest the owner is black while names like Laurie, Brendan and Katie suggest the owner is white.

She then entered these plus surnames into Google.com and Reuters.com and examined the ads they returned. Most names generated ads for public records. However, black-identifying names turned out to be much more likely than white-identifying names to generate ads that including

the word “arrest” (60 per cent versus 48 per cent). All came from [www.instantcheckmate.com](http://www.instantcheckmate.com).

She says the results are statistically significant with a less than 0.1 per cent chance that they were generated by chance.

On Reuters.com, black identifying names were 25 per cent more likely to be served with an arrest-related ad.

That’s an extraordinary result and one that raises more questions than it answers. The biggest puzzle, of course, is what causes the ads to be served up in this pattern. Here the mystery of Google’s Adsense service obscures matters considerably.

Sweeney says there are essentially three possibilities. One is that [www.instantcheckmate.com](http://www.instantcheckmate.com) has set up the arrest-mentioning ads to be served up to black identifying names. Another is that Google has somehow biased its ad serving mechanism in this way.

A more insidious explanation is that society as a whole is to blame. If Google’s Adsense service learns which ad combinations are more effective, it would first serve the arrest-related ads to all names at random. But this would change if it were to discover that click-throughs are more likely when these ads are served against a black-identifying name. In other words, the results merely reflect the discriminatory pattern of clicks from ordinary people.

Of course, we can’t know without greater insight into the black box that is Google Adsense.

Clearly Sweeney has discovered a serious problem here given the impact online presence can have on an individual’s employment prospects.

Whatever the cause, Sweeney says technology may offer some kind of solution. If the algorithms behind AdSense can reason about maximising revenues, she says they ought to be able to reason about the legal and social consequences of certain patterns of click-throughs.

That's an interesting idea and one that Google, [www.instantcheckmate.com](http://www.instantcheckmate.com) and society in general ought to consider in more detail.

Ref: <http://arxiv.org/abs/1301.6822> Discrimination in Online Ad Delivery

Update 4 Feb 2013 14:34 EST

In response to this blog post, a Google spokesperson sends the following comment:

“AdWords does not conduct any racial profiling. We also have an “**anti**” **and violence policy** which states that we will not allow ads that advocate against an organisation, person or group of people. It is up to individual advertisers to decide which keywords they want to choose to trigger their ads.”

Update 7 Feb

Instantcheckmate.com sends the following statement:

“As a point of fact, Instant Checkmate would like to state unequivocally that it has never engaged in racial profiling in Google AdWords. We have absolutely no technology in place to even connect a name with a race and have never made any attempt to do so. The very idea is contrary to our company's most deeply held principles and values.”

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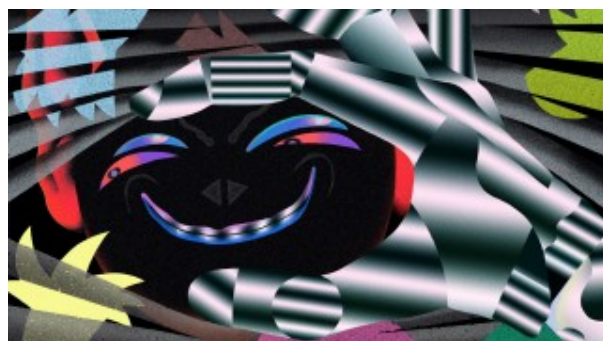
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