## Bringing networks together to improve advertising performance

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We believe that small networks working together can create a more competitive solution against bigger networks, not only regarding ad performance but also fraud detection. Moreover, we have designed algorithms to uniformly distribute visits over several networks, and we have used the average deviation as a parameter to compare results.

The main objectives of any advertising platform are to show users the most relevant ads and reduce the number of faults in fraudulent clicks to zero. The largest ad platforms are at an advantage in respect to the smaller networks given that they have more secure fraud detection systems.

This allows them to get more advertisers and publishers, in turn creating higher revenues creating a vicious circle making the small networks even smaller and themselves even bigger.

Some authors affirm that the exchange of ads represent the future of online advertising and the solution for small ad platforms however for such exchanges to be successful firstly the issue of click fraud and the legal questions regarding user privacy need resolving; and an exchange model, that generates benefits for all parties involved, needs developing.

Advertising exchanges consist of platforms exchanging visits not meeting the requirements of any of their advertisers, or they are simply looking for an advertiser willing to pay more. In this model, advertisers pay for space only if certain requirements are met, and editors leaves a space on their page to be filled by the most profitable ad.

## Referencias

- IAB internet advertising revenue report. (2012). Retrieved from http://www.iab.net/about the iab/recent\_press\_releases/press\_release\_archive/press\_release/pr-122313
- Chen, M.: "The Effect of Fraud Investigation Cost on Pay-Per-Click Advertising". College of New Jersey, Galloway (2011).
- 3. Moe, W. W.: "Targeting Display Advertising". London, UK: Advanced Database Marketing: Innovative Methodologies & Applications for Managing Customer Relationships (2013).
- Mills, E. (. (n.d.). Click fraud could threaten pay-per-click model. Retrieved from http://www.news.com/Study-Click-fraud-could-threaten-pay-per-clickmodel/2100-1024\_3-6090939.html
- Tuzhilin, A. (2005). The Lane's Gifts v. Google Report. Mimeo, New York University. Retrieved from http://googleblog.blogspot.com/pdf/Tuzhilin\_Report.pdf
- Hui, W.: "Estimating the Number of Genuine and Fraudulent Clicks in the Pay-Per-Click (PPC) Model". University of Nottingham Ningbo, China. (2010).
- Mungamuru, B. W.-M.: "Should Ad Networks Bother Fighting Click Fraud? (Yes, They Should.)" (2008).
- 8. Botnet caught red handed stealing from Google. (2009). Retrieved from <a href="http://www.theregister.co.uk/2009/10/09/bahama\_botnet\_steals\_from\_google">http://www.theregister.co.uk/2009/10/09/bahama\_botnet\_steals\_from\_google</a>
- 9. Right to privacy. (n.d.). Retrieved from <a href="http://en.wikipedia.org/wiki/Right">http://en.wikipedia.org/wiki/Right</a> to privacy#cite note-1
- 10. Chow, R. e.: "Making CAPTCHAs Clickable" (2008).
- 11. Haddadi, H.: "Fighting Online Click-Fraud Using Bluff Ads". ACM SIGCOMM Computer Communication Review, v.40 n.2, April 2010.

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