

**EXHIBIT 6**

**PUBLIC VERSION**

**UNITED STATES DISTRICT COURT  
EASTERN DISTRICT OF VIRGINIA  
NORFOLK DIVISION**

<p>I/P ENGINE, INC.,</p> <p style="text-align: center;">Plaintiff,</p> <p style="text-align: center;">v.</p> <p>AOL, INC. et al.,</p> <p style="text-align: center;">Defendants.</p>	<p>)</p> <p>)</p> <p>)</p> <p>)</p> <p>)</p> <p>)</p> <p>)</p> <p>)</p> <p>)</p> <p>)</p> <p>)</p>	<p>Civ. Action No. 2:11-cv-512</p>
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**EXPERT REPORT OF OPHIR FRIEDER CONCERNING NEW ADWORDS BEING  
NO MORE THAN A COLORABLE VARIATION OF OLD ADWORDS**

**I. INTRODUCTION AND SUMMARY**

1. I have been retained by Dickstein Shapiro LLP, attorneys for I/P Engine, Inc. (“I/P Engine”) in the above-captioned case, which is a patent infringement case involving U.S. Patent Nos. 6,314,420 (“the ‘420 patent”) and U.S. Patent No. 6,775,664 (“the ‘664 patent”). I previously submitted a report on July 25, 2012, and updated reports on September 4, 2012 and October 11, 2012. I testified at trial in this matter. I understand that on November 6, 2012 the jury returned a verdict that AdWords infringed all of the claims I/P Engine asserted (“Old AdWords”).

2. Subsequent to the jury verdict, it is my understanding that Google contends it modified AdWords in a way that removes infringing functionality (“New AdWords”). Specifically, according to a declaration of Bartholomew Furrow dated May 11, 2013, Google contends it removed the three filtering steps that the jury found to infringe—QBB disabling,

Mixer disabling, and Promotion. In his declaration, Mr. Furrow did not describe what if any functionally replaced those filtering steps.

3. I understand that Mr. Furrow provided testimony at a deposition regarding New AdWords on September 20, 2013. There, Mr. Furrow describes a series of filtering steps that replaced the Mixer disabling and Promotion filtering steps. In my opinion, as set forth in more detail below, those steps are essentially the same as the Mixer disabling and Promotion steps they replaced. Accordingly, it is my opinion that New AdWords is no more than a colorable variation of Old AdWords (*i.e.*, New AdWords is no more than colorably different than Old AdWords).

**II. BASIS FOR OPINION**

4. In preparing this report, I reviewed the following materials: the documents produced by Google in connection with the “colorable variation” analysis (G-IPE-0892256-437), the source code (SC-G-IPE0000242-443), the Declaration of Bartholomew Furrow dated May 11, 2013 (“Furrow Decl.”), portions of Bartholomew Furrow’s October 24, 2012 trial testimony (“Furrow Trial Tr.”), the transcript of and exhibits from Bartholomew Furrow’s September 20, 2013 deposition (“Furrow Dep.”), and documents produced by I/P Engine in connection with the “colorable variation” analysis (IPE0032956-98). I have also generally reviewed some of the materials from the original case, including my prior expert reports and exhibits.

**III. OLD ADWORDS**

5. [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

The functionality of Old AdWords is described in the expert reports I previously submitted in this case on July 25, 2012, September 4, 2012, and October 11, 2012, and in the testimony I provided at the trial in this matter.

**IV. NEW ADWORDS**

6. I understand that Google contends that it has changed Old AdWords to remove infringing functionality. As support for this change, Google provided the Court with Mr. Furrow’s May 11, 2013 declaration. In the declaration, Mr. Furrow identifies three modifications: removal of QBB disabling, Mixer disabling and Promotion disabling. Furrow Decl. at ¶¶ 8-12. Mr. Furrow identifies no other relevant changes. See Furrow Decl. Moreover, I understand that Defendants were ordered to produce any documents relevant to determining whether New AdWords is no more than a colorable variation of Old AdWords, and, from my review of the documents and source code produced, I see no evidence that any other aspect of the

infringing Old AdWords functionality has been modified in a manner to remove infringement. Mr. Furrow’s deposition also did not identify any other infringing Old AdWords functionality that had been modified in any relevant way. *See, e.g.*, Furrow Dep. at 11:1-16:21; 37:24-38:7; 154:17-156:6; 55:6-57:19; 64:17-25; 78:18-79:13; 154:17-156:5; Furrow Dep. Exh. 4. Accordingly, the “colorable variation” analysis to determine if New AdWords no longer infringes the ‘420 and ‘664 patent claims is focused on the functionality, if any, that replaced the QBB disabling, Mixer disabling and Promotion steps the jury found to infringe the claimed “filtering” limitation.

7. According to Mr. Furrow, [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

8. [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

9. [REDACTED]

10. [REDACTED]

**V. NEW ADWORDS IS NO MORE THAN A COLORABLE VARIATION OF OLD ADWORDS**

11. With respect to the filtering steps associated with the auction, New AdWords is no more than a colorable variation of Old AdWords. It is essentially the same as Old AdWords

in all relevant respects. Both systems filter/filtered candidate advertisements from being shown to a user [REDACTED]

[REDACTED]

12. [REDACTED]

[REDACTED]

[REDACTED]

13. [REDACTED]

[REDACTED]

[REDACTED] Any difference between Old AdWords and New AdWords with respect to filtering is

not relevant to the infringed claims. [REDACTED]

[REDACTED]

14. I understand that one way of analyzing whether a modified system is no more than a colorable variation of the adjudicated system is the function-way-result test. In other words, if the modified or replaced step performs substantially the same function in substantially the same way to achieve substantially the same result, then it is considered to be essentially the same and no more than a colorable variation of the adjudicated product. In my opinion, New AdWords is not more than a colorable variation of Old AdWords.

15. Old AdWords: pre-auction promotion and disabling steps:

Function: Filter out low quality ads; that is, ensure a “standard” of the advertisements shown to the user.

Way: Filter based on LTV score (which includes pCTR) in the AdMixer, by comparing a candidate’s LTV score to zero.

Result: Present only advertisements that meet Google’s “standard” in terms of being shown to the end user.

16. New AdWords: post-auction filtering step:

Function: Filter out low quality ads; that is, ensure a “standard” of the advertisements shown to the user.

Way: Filter based on LTV score (which includes pCTR) in the AdMixer, by comparing a candidate’s LTV score to zero.

Result: Present only advertisements that meet Google’s “standard” in terms of being shown to the end user.

17. Based on my analysis above, I do not believe there is a significant difference.

Between the new and old systems, the functions, ways, and results are the same, and certainly at



least substantially the same. Thus, New AdWords is no more than a colorable variation of Old AdWords.

18. While it is clear that Defendants believe New AdWords does not infringe, they have not yet said why they hold that belief. From Mr. Furrow's deposition, there is the suggestion that they believe the "function" and "way" may be different from how I described it above, [REDACTED]

[REDACTED]

19. I have reviewed recent documents from Google's website explaining the AdWords system to their customers. *See* IPE0032956- 98. Google's representative testified that the help center documents "try to at a high level explain to our advertisers how the search ad system works both for purposes of just transparency with respect to the advertisers but also so

that it helps with respect to alignment about, you know, purposes of advertisers optimizing their ads and understanding the types of things that we're looking for on Google." Alferness Dep. Tr. at 108:1-16. The documents I reviewed are dated after Google claims to have implemented its changes. *Id.* The documents do not describe any change in the AdWords system with regard to eligibility. *See, e.g.*, IPE0032989-92. The website documents still describe that Google determines a candidate advertisement's "eligibility" based on a combination of content and collaborative data. *Id.* It is apparent that any changes to advertisement quality filtering were not substantial enough to change how the process is described to Google's advertising customers.

20. I understand that the changes discussed above have been applied to AdWords, AdSense for Search, AOL's white label version, and AdSense for Mobile Search. Furrow Dep. at 110:7-18. My analysis applies the same to each of these products.

21. I have reviewed the alternative proposals put forth by Defendants' expert Dr. Ungar at the trial in October in DDX-273-276. Google did not adopt any of those proposals in modifying AdWords' Mixer disabling and Promotion steps. As I previously testified, Dr. Ungar's proposals were not suitable substitutes because they do not consider relevance to the query, and they ignore quality. Frieder Trial Tr. 630:24-631:24. The Mixer disabling and Promotion modifications Google actually implemented were never presented at trial, and are different from Dr. Ungar's alternatives. Dr. Ungar's alternatives did not filter out ads based on a quality standard, but the modification Google actually implemented does.

22. Executed on this 25th day of September, 2013, in Washington, DC.

By   
Ophir Frieder