

Exhibit C

IPR2017-01653
Patent No. 8,661,094

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

GOOGLE LLC,
Petitioner

v.

SPRING VENTURES, LTD.,
Patent Owner

Case IPR2017-01653
Patent 8,661,094

**DECLARATION OF MICHAEL I. SHAMOS, Ph.D.
IN SUPPORT OF PETITIONER'S REPLY AND
OPPOSITION TO MOTION TO AMEND**

1. I am the same Michael I. Shamos, Ph.D. I have been retained as an expert witness on behalf of the Petitioner, Google LLC, in this *inter partes* review proceeding.
2. I previously submitted a “Declaration of Michael I. Shamos, Ph.D.” in this proceeding, dated June 20, 2017 (the “First Shamos Declaration,” Ex. 1002). My qualifications and the circumstances of my engagement were detailed in ¶¶ 1-2 of the First Shamos Declaration, which I incorporate here by reference.
3. I offer this declaration in rebuttal to the arguments raised by Patent Owner in its “Patent Owner Response Pursuant to 37 C.F.R. § 42.120” (“POR”), the three expert declarations accompanying the POR, and in its “Patent Owner Motion to Amend Pursuant to 37 C.F.R. § 42.121” (“Motion to Amend”).

I. MATERIALS REVIEWED

4. In connection with my study of the POR and supporting declarations and reaching the conclusions stated herein, I have reviewed a number of additional documents. In addition to those mentioned in my previous declaration, I have reviewed the following additional documents:
 - POR and its accompanying exhibits
 - Motion to Amend and its accompanying exhibits
 - All other documents referenced herein.

search result is a matter of user preference. Accordingly, mere disclosure of returning a plurality of search results does not teach away from Belfiore's redirect feature.

IX. PATENT OWNER'S PROPOSED SUBSTITUTE CLAIMS ARE INVALID OVER THE PRIOR ART

63. As explained below, it is my opinion that the proposed substitute claims would still be obvious to a POSITA over the existing prior art of Belfiore, EchoSearch, Breese, and Osaku.

A. Browser Enhancements

64. A browser is a unitary piece of code designed for web browsing. In order to add additional features to a browser, the user's choices were limited. One possibility would be to wait for the browser provider to add a new desired feature and provide a new release of the browser. This eventuality might never occur, or the user might have to wait an unreasonably long time.

Another possibility was for a third party to offer a browser enhancement. Such an enhancement could take the form of a "plug-in" or object code patch.

65. As a general matter, a "plug-in" is a piece of software that adds additional functionality to an existing application. It is called a "plug-in" because it can essentially be "plugged in" to the application, that is, installed easily

without any programming being required. A “browser plug-in” is a plug-in to add capabilities to a browser.

66. Browser plug-ins could be implemented in various ways, but a convenient way was for the browser itself to expose an Application Programming Interface (API) that the plug-in could invoke to communicate with the browser. This technique was described in the February 1996 issue of Dr. Dobb’s Journal (Ex. 1054).
67. Another possibility was to use Microsoft’s ActiveX, a technology that allowed integration of third-party executable code into a browser, particularly Microsoft’s Internet Explorer 3.0 browser, introduced in 1996.
68. An early ActiveX browser plug-in was Macromedia Shockwave, which allowed the playing of videos created with Macromedia’s Director and Freelance software tools. This capability was described in the June 3, 1996 issue of InfoWorld at p. 16 (Ex. 1055).
69. An early browser plug-in was the Flash player, distributed originally in 1996 to allow display of video on web pages. It was then used by web developers to add various animations to their web pages. However, such pages would not display correctly on browsers that did not have the Flash plug-in.
70. Another early browser plug-in was the Alexa toolbar in 1997, which caused a menu of functions to appear on in the browser window, allowing the user

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