

**IN THE UNITED STATES DISTRICT COURT  
FOR THE DISTRICT OF DELAWARE**

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SELENE COMMUNICATION	:	
TECHNOLOGIES, LLC,	:	
	:	
Plaintiff,	:	
	:	
v.	:	C.A. No. _____
	:	
GOOGLE, INC.,	:	<b>JURY TRIAL DEMANDED</b>
Defendant.	:	
-----X		

**COMPLAINT**

This is an action for patent infringement in which Plaintiff, Selene Communication Technologies, LLC (“Selene”), makes the following allegations against Defendant Google, Inc. (“Google”):

**PARTIES**

1. Plaintiff Selene is a Delaware limited liability company with its principal place of business at 2961 Fontenay Road, Shaker Heights, Ohio 44120.

2. On information and belief, Google is a corporation organized and existing under the laws of the State of Delaware, with its principal place of business at 1600 Amphitheatre Parkway, Mountain View, California 94043. Google has appointed the Corporation Trust Company, Corporation Trust Center, 1209 Orange Street, Wilmington, Delaware 19801, as its agent for service of process.

**JURISDICTION AND VENUE**

3. This is an action for patent infringement arising under the Patent Laws of the United States, Title 35 of the United States Code.

4. This Court has subject matter jurisdiction over this action pursuant to 28 U.S.C. §§ 1331 and 1338(a) because the action concerns the infringement of United States patents.

5. Venue is proper in this judicial district pursuant to 28 U.S.C. §§ 1391 and 1400(b) because, among other reasons, Google has transacted business in the State of Delaware and Google has committed and continues to commit acts of patent infringement in Delaware.

6. Upon information and belief, this Court has personal jurisdiction over Google because it is a corporation organized under the laws of the State of Delaware and has purposely availed itself of the privileges and benefits of the laws of the State of Delaware, and because it transacts substantial business in the State of Delaware, directly or through intermediaries, including: (i) at least a portion of the infringements alleged herein, and (ii) regularly doing or soliciting business in Delaware, engaging in other persistent courses of conduct, maintaining continuous and systematic contacts in Delaware, purposefully availing itself of the privileges of doing business in Delaware, and/or deriving substantial revenue from goods and services provided to individuals in Delaware.

#### **FACTUAL BACKGROUND**

7. This lawsuit asserts a cause of action for infringement of United States Patent No. 6,363,377 (the “’377 Patent”). The inventions disclosed in the ’377 Patent were conceived and created by inventors working for a 501(c)(3) nonprofit research institute known as SRI International (“SRI”).

8. Based on a purchase agreement and assignment from SRI, Plaintiff Selene owns the ’377 Patent, and has the exclusive right to sue for infringement and recover damages for all past, present, and future infringement.

### **THE HISTORY OF SRI**

9. All of the inventions disclosed and claimed in the '377 Patent were originally invented and patented by technology researchers at SRI, a premier institution with a long history of leading technological innovation.

10. SRI, which began as an initiative among researchers at Stanford University, was founded in 1946 as the Stanford Research Institute.

11. Since its inception, SRI was a pioneer in advancing technology in ways that had a profound global impact. For instance, in 1963, engineers at SRI created the first optical video disk recording system, paving the way for modern optical storage technologies such as CD-ROMs, DVDs, and Blu-Ray discs. In the early 1960s, SRI engineers invented the world's first computer mouse. In the late 1960s, SRI collaborated with the U.S. Department of Defense to create "ARPANET" -- the progenitor of what would become the global Internet.

12. SRI was spun out from Stanford University in 1970. In the early 1970s, SRI was the first organization to utilize domain names, with extensions such as ".com," ".org," or ".gov." In 1977, SRI created what is considered to be the first true Internet connection, by connecting three dissimilar networks.

13. In 1988, SRI acquired the Sarnoff Corporation ("Sarnoff"). Sarnoff, formed in 1941, traces its origins to David Sarnoff, a principal technology researcher at RCA Laboratories. It was created to be a research and development company specializing in vision, video, and semiconductor technology, and it later expanded its research areas to include various facets of information technology. Sarnoff is known for several important technological advances. For instance, in 1953, David Sarnoff and RCA Laboratories created the world's first color television

system. From 1963 to 1968, a team of engineers at the David Sarnoff Research Center developed a revolutionary method for the electronic control of light reflected from liquid crystals -- leading to their invention of the liquid crystal display (LCD). Sarnoff is also credited for the development of the electron microscope and early optoelectronic components such as lasers and LEDs.

14. In 2007, SRI spun off its creation of Siri, a virtual personal assistant with a natural language interface, as Siri, Inc. Siri was acquired by Apple Inc. in 2011.

15. SRI today is a nonprofit, independent research and innovation center serving government and industry that derives revenue from a variety of sources, including licensing. SRI employs over 2,500 employees at research facilities across the United States and abroad, including researchers at the former Sarnoff facilities in Princeton, New Jersey.

16. The '377 Patent issued as the result of the inventiveness of SRI personnel and its significant research investment.

#### **SELENE COMMUNICATION TECHNOLOGIES, LLC**

17. Selene was created in 2011 in order to advance technological innovation by active participation in all areas of the patent market, including licensing. By creating a secondary market for SRI patents, Selene believes it is promoting innovation and providing capital to SRI that can be reinvested by SRI in further research.

18. Selene completed a transaction to, among other things, acquire the '377 Patent from SRI in July 2013. The transaction included a non-exclusive license to the U.S. government for the patents.

**UNITED STATES PATENT NO. 6,363,377**

19. On March 26, 2002, the United States Patent and Trademark Office (the “PTO”) duly and legally issued United States Patent No. 6,363,377, entitled “Search Data Processor,” listing as inventors Dina Kravets, Liviu Chiriac, Jeffrey Esakov, and Suz Hsi Wan, after a full and fair examination. A true and correct copy of the ’377 Patent is attached as Exhibit A.

20. Selene is the owner of the entire right, title, and interest in and to the ’377 Patent by assignment, and has the exclusive right to sue for infringement and recover damages for all past, present, and future infringement, including against Google.

21. The ’377 Patent discloses and claims, among other things, novel methods and systems for refining, filtering, and organizing search queries and search results. The ’377 Patent teaches inventions that are fundamental to modern methods and systems for use with search engines, including, but not limited to, the implementation of auto-generated alternative search queries. By way of example only, Claim 1 recites one of the inventions disclosed in the ’377 Patent:

1. A method for generating search queries to be sent to a search engine for searching a information management system, comprising the steps of:
  - a) receiving an initial search query;
  - b) converting the initial search query to general boolean language;
  - c) identifying a level in a respective hierarchy tree for each search query item in the initial search query;
  - d) formulating additional related search queries by substituting items from the respective hierarchy tree for selected items in the query, the substituted item having a level in the hierarchy tree that is greater than or less than the level of the query item in the initial query; and
  - e) forwarding the initial search query and the additional search queries in parallel to the search engine.

22. On July 30, 1998, Dina Kravets, Liviu Chiriac, Jeffrey Esakov, and Suz Hsi Wan submitted their first provisional application for what would become the '377 Patent. At the time, each of the inventors was employed by SRI's subsidiary at its New Jersey laboratories.

23. In 1998, Internet search engine technology was in its infancy. The leading search engine of the time was AltaVista.

24. At that time, AltaVista's search capabilities were considered state of the art. Whereas web "cataloguing" websites, such as Yahoo, manually compiled lists of webpages, AltaVista permitted users to search the full text of millions of automatically indexed webpages through a single portal. Other search engines such as Excite, HotBot, or Lycos provided similar functionality, but not on the scale provided by AltaVista. By 1998, AltaVista received 13 million queries per day, which it processed on 20 machines that collectively had 130 gigabytes of RAM and 500 gigabytes of hard disk space.

25. The inventors of the '377 Patent recognized, however, that all of these search engines had inherent limitations. Users were limited not only by the incompleteness of the search engines' indexes, but also by the accuracy of the user's search queries. A user with a specific target in mind, for example, was faced with the needle-in-a-haystack search exercise of manually reformulating search queries indefinitely until finding a responsive item among the thousands of "hits" returned by the search engine. Worse still, the search engines' inability to effectively discern the user's need could have led the user to mistakenly conclude that responsive materials did not exist, when in fact they did. The user, in other words, would not know what he or she was missing.

26. The inventors of the '377 Patent sought to overcome these search limitations. The '377 Patent generally teaches methods and systems for improving the interaction between the

user and the search engine. By general example only, the '377 Patent discloses methods and systems for automatically converting search queries into "Boolean" language (which allows logical limitations and expansions of searching), selectively modifying the user's query terms to be weaker or stronger, and intelligently forming additional related search queries. The reformulated search queries are then submitted to the search engine in parallel with the user's initial search query, yielding additional -- and more accurate -- results.

27. The '377 Patent was a breakthrough innovation. An illustration of the fundamental nature of the methods and systems taught and claimed in the '377 Patent is the fact that it has been cited during the prosecution of more than 265 later-filed patents. The '377 Patent has more forward citations than 92.9% of all comparable United States patents and has been cited in patent applications filed by a variety of industry leaders including Google, IBM, Intel, Oracle, Yahoo!, Facebook, and Microsoft.

**COUNT I**  
**INFRINGEMENT OF U.S. PATENT NO. 6,363,377**

28. Plaintiff incorporates paragraphs 1 through 27 herein by reference as if set forth here in full.

29. Google is liable for direct infringement of the '377 Patent pursuant to 35 U.S.C. § 271(a).

30. Google has directly infringed and continues to directly infringe, either literally or under the doctrine of equivalents, at least Claim 1 of the '377 Patent by making, using, selling, and/or offering to sell in the United States, or importing into the United States, certain methods and/or systems disclosed and claimed in the '377 Patent, specifically including, but not limited to, its Google Search, Google Search Appliance, Google Site Search, Google Custom Search, Google Search for Android, and Google Search App for iPhone and iPad products and the search

functionality for its Google.com, Google Chrome Browser, and Google TV products (“Infringing Products”).

31. Google has induced its customers to infringe the ’377 Patent literally and/or under the doctrine of equivalents. Google has had knowledge of the ’377 Patent and evidence of its infringement of the ’377 Patent since at least the date Google was served with this Complaint.

32. Google has induced its customers and users of its Infringing Products to infringe the ’377 Patent by providing instructions to practice the methods of the ’377 Patent and by creating and promoting products, including the Infringing Products, that embody default infringing search query functionality, including practicing the steps of Claim 1 of the ’377 Patent (shown above) by default. By doing so, Google knowingly induced its customers and users to infringe, knowing that their use of Google’s products that embody default infringing search query functionality, including the Infringing Products, infringes the ’377 Patent. For example, Google is aware that the infringing search query functionality is a default feature of Google’s products, including the Infringing Products. On information and belief, Google is aware that there is no way for a user to use its Infringing Products without using the infringing search query functionality.

33. On information and belief, Google acted with the specific intent to induce its customers to use the methods claimed by the ’377 Patent by continuing the above-mentioned activities with knowledge of the ’377 Patent. For example, Google is aware that its Infringing Products embody default infringing search query functionality, including practicing the steps of Claim 1 of the ’377 Patent (shown above), and therefore, that Google’s customers and users will infringe the ’377 Patent by using the default infringing search query functionality when they use the Infringing Products. As noted, on information and belief, Google is aware that there is no



way for a user to use its Infringing Products without using the infringing search query functionality.

34. Selene has suffered and continues to suffer damages as a result of Google's infringement of Selene's '377 Patent. Pursuant to 35 U.S.C. § 284, Selene is entitled to recover damages from Google for its infringing acts in an amount subject to proof at trial, but no less than a reasonable royalty from Google for its infringing acts.

35. Google's infringement of Selene's '377 Patent has damaged and will continue to damage Selene, causing irreparable harm for which there is no adequate remedy at law, unless Google is enjoined by this Court.

#### **PRAYER FOR RELIEF**

Selene respectfully requests the Court to enter judgment in its favor and against Google, granting the following relief:

A. Judgment in Plaintiff's favor that Google has infringed and continues to infringe, literally and/or under the doctrine of equivalents, directly and/or indirectly, the '377 Patent;

B. A permanent injunction enjoining Google and its officers, directors, agents, servants, affiliates, employees, divisions, branches, subsidiaries, parents, and all others acting in active concert therewith from infringement of the '377 Patent, or such other equitable relief the Court determines is warranted;

C. An award to Plaintiff of damages adequate to compensate it for Google's acts of patent infringement, but in no event less than a reasonable royalty, together with interest, costs, and expenses as fixed by the court pursuant to 35 U.S.C. § 284;

D. A judgment and order requiring Google to provide an accounting and to pay supplemental damages to Selene, including without limitation, prejudgment and postjudgment interest; and

E. Any further relief to which Selene may be entitled.

### **JURY DEMAND**

Selene, under Rule 38 of the Federal Rules of Civil Procedure, requests a trial by jury of any and all issues so triable by right.

Dated: April 23, 2014

BAYARD, P.A.

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