

IN THE UNITED STATES DISTRICT COURT  
FOR THE NORTHERN DISTRICT OF NEW YORK  
ALBANY DIVISION

RENSSELAER POLYTECHNIC  
INSTITUTE AND  
DYNAMIC ADVANCES, LLC,

Plaintiffs,

v.

APPLE INC.,

Defendant.

Civil Action No. 1:13-CV-633 [GLS/CFH]

JURY TRIAL DEMANDED

**ORIGINAL COMPLAINT**

This is an action for patent infringement in which Plaintiffs, Rensselaer Polytechnic Institute and Dynamic Advances, LLC, make the following allegations against Defendant, Apple Inc.

**PARTIES**

1. Plaintiff Rensselaer Polytechnic Institute ("RPI") is the nation's oldest technological university. Its main campus is located at 100 Eighth St., Troy, Rensselaer County, New York 12180. RPI's mission is to apply science to the common purposes of life.

2. Plaintiff Dynamic Advances, LLC is a Texas limited liability company with its principal place of business at 719 W. Front Street, Suite 242, Tyler, Texas 75702. Dynamic Advances is the exclusive licensee of certain patents granted to RPI. Dynamic Advances facilitates RPI's goal of commercializing its patented inventions to the benefit of the general public and to further RPI's mission to apply science to the common purposes of life.

3. On information and belief, Defendant Apple Inc. is a California corporation having its principal place of business at 1 Infinite Loop, Cupertino, California 95014. Apple may be served via its registered agent for service of process, C T Corporation System, 111 Eighth Avenue, New York, New York 10011.

### **JURISDICTION AND VENUE**

4. This action arises under the patent laws of the United States, Title 35 of the United States Code. This Court has subject matter jurisdiction pursuant to 28 U.S.C. §§ 1331 and 1338(a).

5. This Court has personal jurisdiction over Apple. Apple has conducted and does conduct business within the State of New York and within the Northern District of New York, including in Rensselaer County, as alleged in more detail below. Apple, directly and/or through intermediaries (including distributors, sales agents, and others), ships, distributes, offers for sale, sells, advertises, and/or uses its products (including, but not limited to, the products that are accused of patent infringement in this lawsuit) in the United States, the State of New York, and the Northern District of New York. Apple has committed patent infringement within the State of New York, and, more particularly, within the Northern District of New York as alleged in more detail below.

6. Venue is proper in this district under 28 U.S.C. §§ 1391 and 1400(b).

7. Dynamic Advances filed a complaint for patent infringement against Apple in this district on October 19, 2012 in Civil Action No. 1:12-cv-1579-DNH-DEP (the "Related Case"). Dynamic Advances filed an amended complaint in the Related Case on February 21, 2013. In the Related Case, Dynamic Advances alleges that Apple infringes and has infringed the patent-in-suit, U.S. Patent No. 7,177,798 (the "798 Patent"). In response to both the original and amended complaints in the Related Case,

Apple claimed that Dynamic Advances' "claims against Apple are barred, in whole or in part, on the ground that [Dynamic Advances] lacks standing, in whole or in part, to assert infringement of and/or collect past damages for the infringement of the '798 Patent."

### **THE PATENT-IN-SUIT**

8. The '798 Patent, entitled "Natural Language Interface Using Constrained Intermediate Dictionary of Results" was duly and legally issued by the United States Patent & Trademark Office to inventors Cheng Hsu and Veera Boonjing on February 13, 2007, after a full and fair examination. The inventors assigned the '798 Patent to RPI. A true and correct copy of the '798 Patent is attached to this Complaint as Exhibit A.

9. RPI was founded in 1824. It is the oldest technological university in the United States. Driven by its talented faculty, RPI has dramatically expanded its research enterprise by focusing on five signature research areas: biotechnology; computation and information technology; experimental media and the arts; energy and the environment; and nanotechnology. RPI is especially well-known for its success in the transfer of technology from the laboratory to the marketplace so that new discoveries and inventions benefit human life, protect the environment, and strengthen economic development. For the last decade, the "Rensselaer Plan" has provided a blueprint for transformation and impact. It has guided development of an exceptional environment for advancing research with the potential to address science and society's most challenging problems. Based on this strong foundation, RPI's research has led to dramatic innovations in a host of technology areas. As one illustration of the success of RPI's research and innovation, the United States Patent & Trademark Office has issued 305 patents to RPI.

10. Dynamic Advances is the exclusive licensee to the '798 Patent. As such, RPI has transferred all substantial rights to the '798 Patent to Dynamic Advances, including the exclusive right to sue for infringement and recover damages for all past, present, and future infringement.

11. Dr. Cheng Hsu and Dr. Veera Boonjing invented the technology claimed in the '798 Patent. At the time they invented the claimed technology, Dr. Hsu was a Professor of Decision Sciences and Engineering Systems at RPI and Dr. Boonjing was a doctoral candidate at RPI. Dr. Hsu currently is a professor of Industrial and Systems Engineering at RPI. Dr. Boonjing is currently a professor of Mathematics and Computer Science at King Mongkut's Institute of Technology Ladkrabang in Thailand. In addition to being awarded the '798 Patent for their joint invention, Dr. Hsu and Dr. Boonjing have co-authored a number of articles on natural language processing technology.

12. The '798 Patent discloses and claims novel methods for processing a natural language input. One advantage of this technology is that it provides computer/smartphone users the ability to input search queries or commands in language they would use in conversation with another person. The '798 Patent's process can interpret a query articulated in plain natural language, such as would be used in common speech, by, for example, creating permutations of the concepts of the query, and interpreting the query accordingly.

13. The '798 Patent has been repeatedly cited in subsequent patent applications filed by leading technology companies. A leading patent analytics service found that the '798 Patent has been cited more often than 95.2% of all issued United States patents. The '798 Patent, or its published application, has been cited in patent

applications filed by Hewlett-Packard, Microsoft, IBM, Sony, Google, and Apple. In fact, Apple has cited the '798 Patent during the prosecution of no fewer than three patent applications:

- Published Application No. 2009/0225041, filed March 4, 2008 (issued as U.S. Patent 8,289,283);
- Published Application No. 2012/0016678, filed January 10, 2011; and
- Published Application No. 2012/0265533, filed April 18, 2011.

14. By way of example only, claim 9 of the '798 Patent recites:

A computer-implemented method for processing a natural language input comprising:

receiving a natural language input;

providing from said natural language input a plurality of language-based database objects;

identifying a finite number of permutations of the plurality of database objects, the database objects being stored in a metadata database comprising at least one of a group of information comprising case information, keywords, information models, and database values; and

interpreting at least one of the permutations to provide determination of a result of the natural language input.

### **COUNT I**

#### **Infringement of U.S. Patent No. 7,177,798**

15. Plaintiffs refer to and incorporate herein the allegations of paragraphs 1 through 14 above.

16. On information and belief, Apple has infringed and continues to infringe, either literally or under the doctrine of equivalents, one or more claims of the '798 Patent by making, using, offering to sell, selling, or importing, in this judicial district and elsewhere in the United States, technology that processes natural language inputs as

claimed in the '798 Patent. For example, on information and belief, Apple's Siri personal assistant, available for select iPhones, iPads, and iPods, processes natural language inputs as claimed in the '798 Patent. Apple, alone or in conjunction with end users whom Apple directs and controls, operates Siri to process natural language inputs as claimed in the '798 Patent. Apple is thus liable for infringement of the '798 Patent pursuant to 35 U.S.C. § 271.

17. On information and belief, Apple actively induces third parties, including its customers, to infringe one or more claims of the '798 Patent by providing technical support, marketing materials, and other documentation to instruct and encourage end users, alone or in conjunction with Apple, to use technology that processes natural language inputs as claimed in the '798 Patent. For example, on information and belief, Apple's Siri personal assistant, available for select iPhones, iPads, and iPods, is operated by the end user, alone or in conjunction with Apple, to process natural language inputs as claimed in the '798 Patent. Apple encourages consumers to use Siri as claimed in the '798 Patent and, in fact, has entire webpages devoted to teaching consumers the benefits of using Siri to process natural language inputs, how to use Siri to process natural language inputs, and encouraging them to buy Apple products so they can use Siri to process natural language inputs. Since at least October 19, 2012, when Dynamic Advances put Apple on specific notice of Apple's infringement by filing the Related Case, Apple has known that, or has been willfully blind to the fact that, third parties, including Apple's customers, alone or in conjunction with Apple, infringe the '798 Patent by using the technology. Apple is thus liable for inducing others to infringe the '798 Patent pursuant to 35 U.S.C. § 271(b).

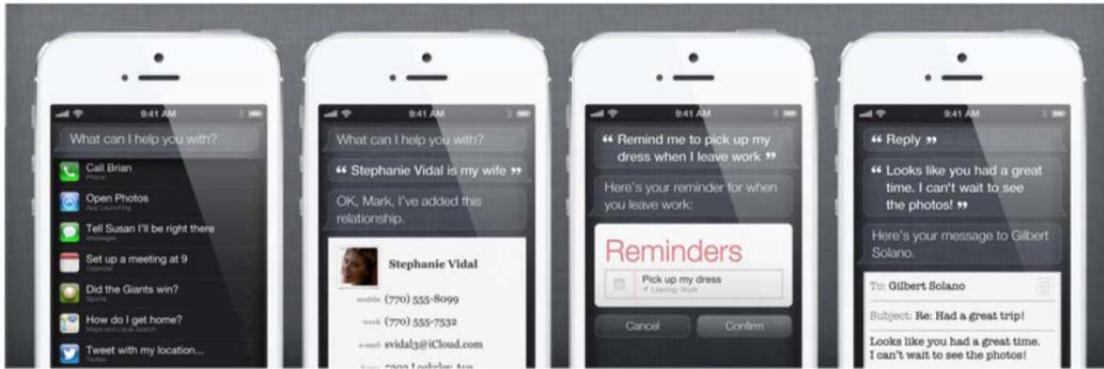
18. On information and belief, Apple offers to sell and sells to third parties, including its customers, components, materials, or apparatuses that are specially designed for use in processing natural language inputs as claimed in the '798 Patent. The components, material, or apparatuses constitute a material part of the patented invention and have no use other than to process natural language inputs as claimed in the '798 Patent. For example, Apple provides the Siri personal assistant, available for select iPhones, iPads, and iPods, to enable end users, alone or in conjunction with Apple, to process natural language inputs as claimed in the '798 Patent. Since at least October 19, 2012, when Dynamic Advances put Apple on specific notice of Apple's infringement by filing the Related Case, Apple has known that, or has been willfully blind to the fact that, third parties, including Apple's customers, alone or in conjunction with Apple, infringe the '798 Patent by using the technology. Apple is thus liable for contributory infringement of the '798 Patent pursuant to 35 U.S.C. § 271(c).

19. Since at least October 19, 2012, when Dynamic Advances put Apple on specific notice of Apple's infringement by filing the Related Case, Apple has known that it infringes the '798 Patent. Apple's acts of infringement have been and continue to be willful, deliberate, and in reckless disregard of the '798 Patent. Plaintiffs reserve the right to allege that Apple's infringement of the '798 Patent prior to October 19, 2012, was willful and deliberate if such facts present themselves during discovery.

20. As described by Apple, "Siri isn't like traditional voice recognition software that requires you to remember keywords and speak specific commands. Siri understands your natural speech, and it asks you questions if it needs more information to complete a task." <http://www.apple.com/ios/siri/siri-faq/> (a true and correct copy of

this webpage is attached as Exhibit B to this Complaint). Based on the natural language query to Siri, it will “find a business and get directions, schedule reminders and meetings, search the web, and more.” *Id.*

21. As advertised by Apple, “Siri lets you use your voice to send messages, schedule meetings, place phone calls, and more.\* Ask Siri to do things just by talking the way you talk.” <http://www.apple.com/ios/siri/> (a true and correct copy of this webpage is attached as Exhibit D to this Complaint). The asterisk denotes that Siri is available on Apple’s “iPhone 4S, iPhone 5, iPad with Retina display, iPad mini, and iPod touch (5th generation).” *Id.* Apple advertises that “Siri on Apple iPhone, iPad, and iPod touch lets you use your voice to send messages, make calls, set reminders, and more. Just speak naturally. Siri understands.” <http://www.apple.com/search/?q=siri&section=global&geo=us> (a true and correct copy of this webpage is attached as Exhibit E to this Complaint). Apple advertises how to use Siri. For example, at <http://www.apple.com/iphone/iphone-5/tips/>, Apple explains how to use Siri on an iPhone 5 (a true and correct copy of this webpage is attached as Exhibit F to this Complaint). The pertinent portion of Apple’s webpage is reproduced below.



**See how to use Siri.**

When you press and hold the Home button, Siri asks, "What can I help you with?" Tap the "i" button to see a detailed list of the ways Siri can help you get things done.

**Tell Siri who's who.**

Tell Siri about your relationships, such as "Erin is my wife" or "Rick is my dad." Then you can say "Text my wife" or "Call dad" and Siri knows who you mean.

**Set your locations.**

Be sure to enter your home and work addresses in Contacts. That way, Siri can remind you to do things when you leave or arrive at either place.

**Siri writes email.**

You can dictate a quick response to an email. Just say "Reply," then tell Siri your message.

22. In patent litigation against Samsung, Apple touted that Siri has driven consumer demand for the iPhone—and Apple submitted sworn declarations attesting to this fact. *Apple Inc. v. Samsung Elecs. Co., et al.*, No. 12-cv-630, slip op. at 81 (N.D. Cal. June 29, 2012) ("Apple asserts that...Siri, a computerized personal assistant, has driven consumer demand for the iPhone 4S."). Apple also persuaded the United States Court of Appeals for the Federal Circuit that Siri drives consumer demand for the iPhone 4S. *Apple Inc. v. Samsung Elecs. Co., et al.*, No. 2012-1507, slip op. at 8 (Fed. Cir. Oct. 11, 2012) ("Advertised by Apple as an 'intelligent personal assistant,' Siri enables iPhone 4S users to speak their commands to the phone in a natural and conversational tone. There is no dispute that this highly popular feature is a significant source of consumer demand for the iPhone 4S.").

23. On information and belief, Apple describes Siri's operation in its published patent application number 2012/0016678, entitled "Intelligent Automated Assistant." A true and correct copy of the publication is attached as Exhibit C to this Complaint. Figure 28 of the publication number 2012/0016678, reproduced below, describes how Apple's Intelligent Automated Assistant processes natural language inputs. The

Assistant receives the input, provides a plurality of words/phrases based on that input, identifies a finite number of combinations of the words or phrases as candidate syntactic parses, and interprets at least one of the candidates as the representation of user intent. In processing the input, the Assistant refers to and uses database objects such as keywords in its vocabulary database, objects in its personal memory databases, or information in its domain or task databases.

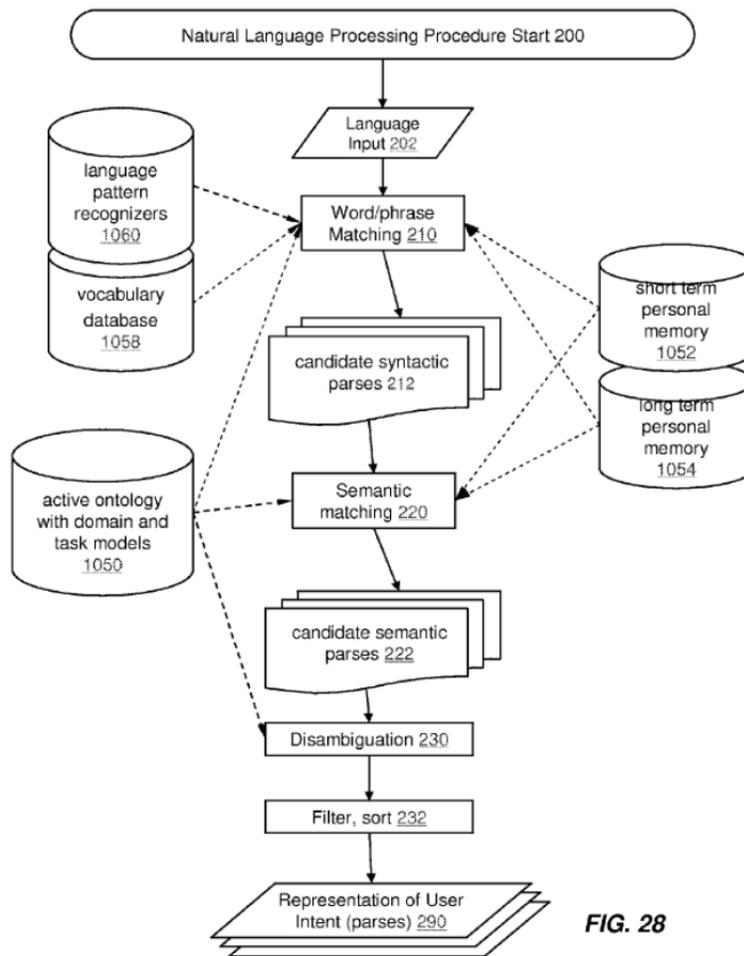


FIG. 28

24. Plaintiffs have suffered and continue to suffer damages as a result of Apple's infringement of the '798 Patent. Pursuant to 35 U.S.C. § 284, Plaintiffs are entitled to recover damages in an amount that is no less than a reasonable royalty from

Apple for its infringing acts. Plaintiffs are further entitled to enhanced damages for Apple's willful infringement of the '798 Patent.

25. Apple's infringement of the '798 Patent will continue to damage Plaintiffs, causing irreparable harm for which there is no adequate remedy at law, unless Apple is enjoined by this Court.

### **JURY DEMAND**

26. Plaintiffs Rensselaer Polytechnic Institute and Dynamic Advances, LLC hereby request a trial by jury in Albany, New York, pursuant to Rule 38 of the Federal Rules of Civil Procedure.

### **PRAYER FOR RELIEF**

27. Plaintiffs Rensselaer Polytechnic Institute and Dynamic Advances, LLC respectfully request this Court to enter judgment in their favor and against Defendant Apple Inc., granting the following relief:

- A. Judgment in Plaintiffs' favor that Apple has infringed and continues to infringe the '798 Patent;
- B. An award to Plaintiffs of damages adequate to compensate it for Apple's acts of patent infringement, but in no event less than a reasonable royalty, together with interest and costs as fixed by the court pursuant to 35 U.S.C. § 284;
- C. An award to Plaintiffs of enhanced damages, up to and including treble damages, pursuant to 35 U.S.C. § 284, for Apple's acts of willful infringement;
- D. A grant of permanent injunction pursuant to 35 U.S.C. § 283 against Apple, enjoining Apple from further acts of patent infringement;

- E. An award to Plaintiffs of their costs of suit and reasonable attorneys' fees pursuant to 35 U.S.C. § 285 due to the exceptional nature of this case; and
- F. Any further relief that this Court deems just and proper.

Date: June 3, 2013

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