

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE

IPA TECHNOLOGIES, INC.,

Plaintiff,

v.

AMAZON.COM, INC. and AMAZON
DIGITAL SERVICES, LLC,

Defendants.

Civil Action No. 16-1266-RGA

IPA TECHNOLOGIES, INC.,

Plaintiff,

v.

SONY ELECTRONICS INC. AND SONY
MOBILE COMMUNICATIONS (USA) INC.,

Defendants.

Civil Action No. 17-0055-RGA

IPA TECHNOLOGIES, INC.,

Plaintiff,

v.

DISH NETWORK CORP and DISH
NETWORK L.L.C.,

Defendants.

Civil Action No. 16-1170-RGA

IPA TECHNOLOGIES, INC.,

Plaintiff,

v.

TCL COMMUNICATION TECHNOLOGY
HOLDINGS, LTD., TCT MOBILE LIMITED,
and TCT MOBILE (US), INC.,

Defendants.

Civil Action No. 16-1236-RGA

IPA TECHNOLOGIES, INC.,

Plaintiff,

v.

LG ELECTRONICS INC., LG
ELECTRONICS U.S.A., INC., and LG
ELECTRONICS MOBILECOMM U.S.A.,
INC.,

Defendants.

Civil Action No. 17-0121-RGA

IPA TECHNOLOGIES, INC.,

Plaintiff,

v.

HUAWEI TECHNOLOGIES CO., LTD. and
HUAWEI DEVICE USA, INC.,

Defendants.

Civil Action No. 17-0248-RGA

MEMORANDUM OPINION

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March 31, 2018


ANDREWS, U.S. DISTRICT JUDGE:

Presently before the Court is the Amazon Defendants' Motion to Dismiss Pursuant to Federal Rule of Civil Procedure 12(b)(6) (No. 16-1266, D.I. 12). The issues are fully briefed. (D.I. 13, 15, 17). The Court held oral argument on November 16, 2017.¹ (D.I. 25). For the reasons that follow, the Court will grant Defendants' motion to dismiss as to claim 1 of the '021 patent, claim 1 of the '061 patent, and claim 1 of the '718 patent.

I. BACKGROUND

Plaintiff filed suit on December 19, 2016, alleging that Defendants infringe U.S. Patent Nos. 6,742,021 ("the '021 patent"), 6,523,061 ("the '061 patent"), and 6,757,718 ("the '718 patent") owned by Plaintiff. (D.I. 1). The asserted patents are generally directed to navigating an electronic data source by means of spoken language. ('021 patent, Abstract). The asserted patents share a common specification. (D.I. 13, p. 4 n.2).

Claim 1 of the '021 patent reads:

1. A method for speech-based navigation of an electronic data source, the electronic data source being located at one or more network servers located remotely from a user, comprising the steps of:
 - (a) receiving a spoken request for desired information from the user;
 - (b) rendering an interpretation of the spoken request;
 - (c) constructing at least part of a navigation query based upon the interpretation;

¹ On January 19, 2017, Plaintiff filed suit asserting the same patents against Sony Corporation, Sony Corporation of America, Sony Electronics Inc., Sony Mobile Communications (USA) Inc., Sony Mobile Communications AB, and Sony Mobile Communications, Inc. ("Sony"). (C.A. No. 17-055-RGA, D.I. 1). Plaintiff subsequently stipulated to dismiss Sony Corporation, Sony Corporation of America, Sony Mobile Communications AB, and Sony Mobile Communications, Inc. (C.A. No. 17-055, D.I. 11). The remaining Sony Defendants filed a motion to dismiss, joining the Amazon Defendants' motion to dismiss and providing additional briefing. (C.A. No. 17-055, D.I. 12, 13, 16, 17). Oral argument included presentations from both the Amazon defendants and the Sony defendants. All docket item references in this opinion refer to C.A. No. 16-1266 unless otherwise specified.

In related cases, Plaintiff has asserted the same patents against several other defendants. The following defendants have joined the Amazon and/or Sony Defendants' motions to dismiss: Dish Network Corp. and Dish Network L.L.C. (C.A. No. 16-1170, D.I. 13); TCL Communication Technology Holdings, Ltd., TCT Mobile Limited, and TCT Mobile (US), Inc. (C.A. No. 16-1236, D.I. 12 & 19); LG Electronics Inc., LG Electronics U.S.A., Inc., and LG Electronics Mobilecomm U.S.A., Inc. (C.A. No. 17-121, D.I. 8); and Huawei Technologies Co., Ltd. and Huawei Device USA, Inc. (C.A. No. 17-248, D.I. 12).

- (d) soliciting additional input from the user, including user interaction in a non-spoken modality different than the original request without requiring the user to request said non-spoken modality;
- (e) refining the navigation query, based upon the additional input;
- (f) using the refined navigation query to select a portion of the electronic data source; and
- (g) transmitting the selected portion of the electronic data source from the network server to a client device of the user.

('021 patent, claim 1). Claim 1 of the '061 patent reads:

1. A method for utilizing agents for speech-based navigation of an electronic data source, comprising the steps of:
 - (a) receiving a spoken request for desired information from a user;
 - (b) rendering an interpretation of the spoken request;
 - (c) constructing a navigation query based upon the interpretation;
 - (d) routing the navigation query to at least one agent, wherein the at least one agent utilizes the navigation query to select a portion of the electronic data source; and
 - (e) invoking a user interface agent for outputting the selected portion of the electronic data source to the user, wherein a facilitator manages data flow among multiple agents and maintains a registration of each of said agents' capabilities.

('061 patent, claim 1). Claim 1 of the '718 patent reads:

1. A method for speech-based navigation of an electronic data source located at one or more network servers located remotely from a user, wherein a data link is established between a mobile information appliance of the user and the one or more network servers, comprising the steps of:
 - (a) receiving a spoken request for desired information from the user utilizing the mobile information appliance of the user, wherein said mobile information appliance comprises a portable remote control device
or a set-top box for a television;
 - (b) rendering an interpretation of the spoken request;
 - (c) constructing a navigation query based upon the interpretation;
 - (d) utilizing the navigation query to select a portion of the electronic data source; and
 - (e) transmitting the selected portion of the electronic data source from the network server to the mobile information appliance of the user.

('718 patent, claim 1).

On June 26, 2017, Plaintiff submitted proposed claim constructions for purposes of Defendants' motion to dismiss. (D.I. 22). They are:

Claim Term	Plaintiff's Proposed Construction
navigation query	an electronic query, form, series of menu selections, or the like; being structured appropriately so as to navigate a particular data source of interest in search of desired information
electronic data source	source of information in numerical form that can be digitally transmitted or processed and that is implemented on or by means of a computing device
rendering an interpretation of the spoken request	source of information in numerical form that can be digitally transmitted or processed and that is implemented on or by means of a computing device
constructing a navigation query based upon the interpretation / constructing at least part of a navigation query based upon the interpretation	combining or arranging elements of (at least part of) the navigation query based upon the interpretation

(D.I. 22 at 2). For purposes of this motion, I adopt Plaintiff's proposed constructions.

II. LEGAL STANDARD

A. Motion to Dismiss

Rule 8 requires a complainant to provide "a short and plain statement of the claim showing that the pleader is entitled to relief" Fed. R. Civ. P. 8(a)(2). Rule 12(b)(6) allows the accused party to bring a motion to dismiss the claim for failing to meet this standard. A Rule 12(b)(6) motion may be granted only if, accepting the well-pleaded allegations in the complaint as true and viewing them in the light most favorable to the complainant, a court concludes that those allegations "could not raise a claim of entitlement to relief." *Bell Atl. Corp. v. Twombly*, 550 U.S. 544, 558 (2007).

“Though ‘detailed factual allegations’ are not required, a complaint must do more than simply provide ‘labels and conclusions’ or ‘a formulaic recitation of the elements of a cause of action.’” *Davis v. Abington Mem’l Hosp.*, 765 F.3d 236, 241 (3d Cir. 2014) (quoting *Twombly*, 550 U.S. at 555). I am “not required to credit bald assertions or legal conclusions improperly alleged in the complaint.” *In re Rockefeller Ctr. Props., Inc. Sec. Litig.*, 311 F.3d 198, 216 (3d Cir. 2002). A complaint may not be dismissed, however, “for imperfect statement of the legal theory supporting the claim asserted.” *See Johnson v. City of Shelby*, 135 S. Ct. 346, 346 (2014).

A complainant must plead facts sufficient to show that a claim has “substantive plausibility.” *Id.* at 347. That plausibility must be found on the face of the complaint. *Ashcroft v. Iqbal*, 556 U.S. 662, 678 (2009). “A claim has facial plausibility when the plaintiff pleads factual content that allows the court to draw the reasonable inference that the defendant is liable for the misconduct alleged.” *Id.* Deciding whether a claim is plausible will “be a context-specific task that requires the reviewing court to draw on its judicial experience and common sense.” *Id.* at 679.

B. Patentable Subject Matter under 35 U.S.C. § 101

Section 101 of the Patent Act defines patent-eligible subject matter. It provides: “Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.” 35 U.S.C. § 101. The Supreme Court has recognized an implicit exception for three categories of subject matter not eligible for patentability—laws of nature, natural phenomena, and abstract ideas. *Alice Corp. Pty. v. CLS Bank Int’l*, 134 S. Ct. 2347, 2354 (2014). The purpose of these carve outs is to protect the “basic tools of scientific and technological work.” *Mayo Collaborative Servs. v. Prometheus Labs.*,

Inc., 566 U.S. 66, 71 (2012). “[A] process is not unpatentable simply because it contains a law of nature or a mathematical algorithm,” as “an application of a law of nature or mathematical formula to a known structure or process may well be deserving of patent protection.” *Id.* at 71 (emphasis omitted). In order “to transform an unpatentable law of nature into a patent-eligible application of such a law, one must do more than simply state the law of nature while adding the words ‘apply it.’” *Id.* at 72 (emphasis omitted).

The Supreme Court recently reaffirmed the framework laid out in *Mayo* “for distinguishing patents that claim laws of nature, natural phenomena, and abstract ideas from those that claim patent-eligible applications of those concepts.” *Alice*, 134 S. Ct. at 2355. First, the court must determine whether the claims are drawn to a patent-ineligible concept. *Id.* If the answer is yes, the court must look to “the elements of the claim both individually and as an ‘ordered combination’” to see if there is an “‘inventive concept’—*i.e.*, an element or combination of elements that is ‘sufficient to ensure that the patent in practice amounts to significantly more than a patent upon the [ineligible concept] itself.’” *Id.* (alteration in original). “A claim that recites an abstract idea must include ‘additional features’ to ensure ‘that the [claim] is more than a drafting effort designed to monopolize the [abstract idea].’” *Id.* at 2357 (alterations in original) (quoting *Mayo*, 566 U.S. at 77). “[S]imply appending conventional steps, specified at a high level of generality, to . . . abstract ideas cannot make those . . . ideas patentable.” *Mayo*, 566 U.S. at 82. Further, “the prohibition against patenting abstract ideas cannot be circumvented by attempting to limit the use of [the idea] to a particular technological environment.” *Alice*, 134 S. Ct. at 2358 (quoting *Bilski v. Kappos*, 561 U.S. 593, 610-11 (2010)). Thus, “the mere recitation of a generic computer cannot transform a patent-ineligible abstract idea into a patent-eligible invention.” *Id.* For this second step, the machine-or-

transformation test can be a “useful clue,” although it is not determinative. *Ulramercial, Inc. v. Hulu, LLC*, 772 F.3d 709, 716 (Fed. Cir. 2014), *cert. denied*, 135 S. Ct. 2907 (2015).

Patent eligibility under § 101 is a question of law suitable for resolution on a motion to dismiss. *See OIP Techs., Inc. v. Amazon.com, Inc.*, 788 F.3d 1359, 1362 (Fed. Cir. 2015); *Content Extraction & Transmission LLC v. Wells Fargo Bank, Nat. Ass'n*, 776 F.3d 1343, 1346 (Fed. Cir. 2014), *cert. denied*, 136 S. Ct. 119 (2015). The Federal Circuit follows regional circuit law for motions to dismiss. *Content Extraction*, 776 F.3d at 1346.

The Federal Circuit has held that the district court is not required to individually address claims not asserted or identified by the non-moving party, so long as the court identifies a representative claim and “all the claims are substantially similar and linked to the same abstract idea.” *Id.* at 1348.

III. DISCUSSION

A. Procedural Posture

Plaintiff’s complaint explicitly asserts only claim 1 of each asserted patent. (D.I. 1, ¶¶ 19 (“Plaintiff is informed and believes, and on that basis alleges, that Defendants have infringed and are currently infringing one or more claims (*e.g.*, claim 1) of the ’021 Patent, in violation of 35 U.S.C. § 271.”), 32 (same statement with respect to the ’061 patent), 46 (same statement with respect to the ’718 patent)). Defendants argue that claim 1 of the ’021 patent, claim 1 of the ’061 patent, and claim 1 of the ’718 patent are representative of each of the remaining independent and dependent claims in each asserted patent. (D.I. 13, p. 8). According to Defendants, the remaining independent claims “are directed to the same high-level functions, performed by either generic [or] unspecified computer ‘code segment[s].’” (*Id.* (second brackets in original)). Defendants assert that the dependent claims “add nothing of substance to the independent

claims.” (*Id.*). Plaintiff disagrees, but does not dispute that there are some claims which may be representative of some other claims. (D.I. 25 at 36:2-9). Plaintiff agrees, for example, that “Claim 1 of the ’021 [patent] is representative of the independent claim 1 and the corresponding claims, independent claims of the ’021 and ’718 that have the computer program method and system claims.” (*Id.* at 45:13-17).

The Amazon Defendants devoted less than one page of their opening brief to explaining why claim 1 of each asserted patent is representative of each of the remaining claims in each asserted patent. (*See* D.I. 13, p. 8). The remainder of their briefing deals only with claim 1 of each asserted patent. The ’021 patent alone contains 132 claims. I thus find the Amazon Defendants’ briefing insufficient to support a determination that claim 1 of each asserted patent is representative of all remaining claims in each asserted patent.

I will thus limit this opinion to deciding whether claim 1 of each asserted patent is patentable under § 101.

B. Patentable Subject Matter

1. Abstract Idea

“First, we determine whether the claims at issue are directed to [an abstract idea].” *Alice*, 134 S. Ct. at 2355. “The ‘abstract ideas’ category embodies ‘the longstanding rule that an idea of itself is not patentable.’” *Id.* (quoting *Gottschalk v. Benson*, 409 U.S. 63, 67 (1972)). “The Supreme Court has not established a definitive rule to determine what constitutes an ‘abstract idea’ sufficient to satisfy the first step of the *Mayo/Alice* inquiry.” *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1334 (Fed. Cir. 2016). The Supreme Court has recognized, however, that “fundamental economic practice[s],” *Bilski*, 561 U.S. at 611, “method[s] of organizing human activity,” *Alice*, 134 S. Ct. at 2356, and mathematical algorithms, *Benson*, 409 U.S. at 64, are

abstract ideas. In navigating the parameters of such categories, courts have generally sought to “compare claims at issue to those claims already found to be directed to an abstract idea in previous cases.” *Enfish*, 822 F.3d at 1334. “[S]ome improvements in computer-related technology when appropriately claimed are undoubtedly not abstract.” *Id.* at 1335. “[I]n determining whether the claims are directed to an abstract idea, we must be careful to avoid oversimplifying the claims because ‘[a]t some level, all inventions . . . embody, use, reflect, rest upon, or apply laws of nature, natural phenomena, or abstract ideas.’” *In re TLI Commc’ns LLC Patent Litig.*, 823 F.3d 607, 611 (Fed. Cir. 2016) (alterations in original) (quoting *Alice*, 134 S. Ct. at 2354).

Defendants argue that the asserted “patents are directed to the abstract idea of responding to a spoken request.” (D.I. 13, p. 10). Plaintiff counters that the asserted patents provide “specific improvements” to existing technology and provide a specific solution to a problem necessarily rooted in technology. (D.I. 15, p. 13). I conclude that claim 1 of the ’021 patent, claim 1 of the ’061 patent, and claim 1 of the ’718 patent are each directed to the abstract idea of transmitting electronic data to a user in response to a spoken request from the user.

According to Defendants, claim 1 of the ’021 patent, claim 1 of the ’061 patent, and claim 1 of the ’718 patent are each abstract because they “claim mere results with no specific technical solutions for achieving them.” (D.I. 13, p. 11). In other words, the claims recite “nothing but the idea for the interaction” between a natural language input and an electronic database output. (D.I. 25 at 63:13-14). Plaintiff counters that the asserted patents are directed to a “specific solution” to a problem rooted in technology. (D.I. 15, p. 13). As support, Plaintiff advances several arguments, including arguments based on the specification and arguments by analogy to previous cases.

First, Plaintiff asserts that the claims “do not simply describe a function or outcome,” because they “disclose specific and narrow methods and systems which require specific computer hardware and software.” (*Id.* p. 15). Defendants submit that the claims here merely “describe a desired function or outcome, without providing any limiting detail that confine[s] the claim to a particular solution to an identified problem.” (D.I. 13, p. 13 (quoting *Affinity Labs of Texas, LLC v. Amazon.com Inc.*, 838 F.3d 1266, 1272 (Fed. Cir. 2016))). I agree with Defendants.

The asserted patents fail to provide technological solutions to the problems they identify. On a broad level, the specification identifies the complex format of electronic databases as a problem for users. (’021 patent at 1:20-36 (navigation of electronic databases is “too complex for user-friendly selection by means of a traditional remote-control clicker.”)). The specification then identifies the goal of the invention: “Allowing spoken natural language requests as the input modality for rapidly searching and accessing desired content.” (*Id.* at 1:37-41). Rather than claiming a technological solution to the problem, however, the asserted claims are directed to the objective of the invention itself. They are drafted so broadly as to cover any method that can achieve navigating electronic databases by spoken natural language input—they recite, at a very high level of generality, the basic steps that would be required. Any database search that begins with a request in a format not accepted by the database will require receipt, interpretation, and translation of the request to a format compatible with the database. (*See id.* at 15:17-21).² Searching the database and transmitting the results to the user are required to retrieve any results

² Claim 1 of the ’021 patent also recites steps of “soliciting additional input from the user . . . in a non-spoken modality” and “refining the navigation query, based upon the additional input.” (’021 patent at 15:22-27). Though perhaps not required for all database searches, this idea of refining search terms will be implicated whenever the initial search terms (resulting from the initial translation) prove deficient. *See infra* at 21 n.11. As with the other steps, these steps are drafted too broadly to represent a solution to a problem necessarily rooted in technology or a technological improvement.

from a database, even when searches are conducted entirely in a format compatible with the database. Additionally, though the specification recites faster user access to data as a benefit of the invention, it lacks any technical explanation for this benefit. (*See* '021 patent at 2:13-20).

Plaintiff submits that the “electronic data source” and “network servers” recited in the claims tie the claims to a technological solution or improvement. (D.I. 15, pp. 13-14 (“the '021 patent discloses specific and narrow methods and systems for speech-based navigation of an *electronic data source* located on one or more *network servers*”) (emphasis in original)). I find these and other elements insufficient to tie the claims to a specific improvement in technology or a technological solution to an identified problem. The asserted patents do not suggest that there is anything limiting about an “electronic data source” or “network servers.”

The specification treats “database” and “data source” as generic terms, noting that the invention uses a navigation query “to access desired information directly from a *particular* database or data source of interest.” (*See* '021 patent 8:58-62 (emphasis added)). It also discloses embodiments for accessing disparate types of data, such as films and stock charts, subsequently stating that these disclosures do “not limit the scope of the invention in any respect.” (*Id.* at 10:16-38). The asserted patents caution that these disclosures of data types are non-limiting. This, and the requirement of selecting a particular “database” or “data source” to view data suggests that, in the absence of a modifier, “database” and “data source” are generic terms.

“Network servers” are not explicitly implicated by the specification in any problem. The specification’s “network” disclosures make clear that “network” is a generic term. A “network” may be embodied in any type of hardwired or wireless connection, and may be part of the Internet, “or may be embodied in a proprietary network, or in any other electronic

communications network infrastructure.” (*Id.* at 4:38-52). Therefore, I find that the asserted patents treat “electronic data source” and “network servers” as generic terms.

Plaintiff also appears to argue that the claimed “navigation query” necessarily roots the claims in technology. (D.I. 15, p. 13 (“The claim sets forth a particular solution involving the use of structured navigation queries . . . [making the claim] necessarily rooted in computer technology.”)). The specification defines “navigation query” as “an electronic query, form, series of menu selections, or the like; being structured appropriately so as to navigate a particular data source of interest in search of desired information.” (’021 patent at 8:55-58). The “navigation query” thus provides no link to any particular technology. I conclude that the claimed “navigation query” fails to tie the claims to specific hardware or software.

The “network servers,” “electronic data source” and “navigation query” recited in the claims may limit the claims to a generally technological environment, but their presence does not require specific hardware or software sufficient to tie the claims to a technological solution to a particular problem. *See Alice*, 134 S. Ct. at 2358 (“the prohibition against patenting abstract ideas cannot be circumvented by attempting to limit the use of [the idea] to a particular technological environment”) (alteration in original); *In re TLI*, 823 F.3d at 611 (concluding that specification supported finding that “telephone unit” and “server” were “physical components merely provid[ing] a generic environment in which to carry out the abstract idea”).

In responding to the Sony Defendants’ motion, Plaintiff also appears to argue that the “facilitator” and “agents” of claim 1 of the ’061 patent “are specific software modules configured to communicate with each other and perform specific functions” that render the claim

patentable.³ (C.A. No. 17-055, D.I. 16, pp. 4-5). During oral argument, Plaintiff invoked as an improvement the “distributed architecture” required by the “facilitator” and “agent,” “because it allows the routing of the query to the appropriate agent, the appropriate database based on the interpretation.” (D.I. 25, 50:21-51:13). Plaintiff further characterized this as “a specific solution to a specific technical problem,” but did not specify what problem the “facilitators” and “agents” solve, or even what improvement they provide. (*Id.*).

Like the other limitations Plaintiff proffers, I conclude that the presence of a “facilitator” and “agents” in claim 1 of the ’061 patent does not render the claim patentable. The inclusion of a “facilitator” and an “agent” does not change overall character of claim 1 of the ’061 patent—the claim still requires transmitting electronic data to a user in response to a spoken request from the user. The first three steps of the method recited in claim 1 of the ’061 patent are nearly identical to those recited in the method of claim 1 of the ’021 patent. The last two steps of the method of the ’061 patent achieve the same result (selecting a portion of the electronic data source and sending the selected portion to the user) as the methods recited in claim 1 of the ’021 patent and claim 1 of the ’718 patent. Claim 1 of the ’061 patent merely recites the “agent” as an intermediary using broad functional language, providing no detail regarding how an “agent” is implemented in the claimed method. Plaintiff has not identified a specific technological improvement or solution to a technological problem provided by the “agent” or “facilitator.” Accordingly, I conclude that the recitation of an “agent” and a “facilitator” does not change the overall idea to which claim 1 of the ’061 patent is directed.

Plaintiff further argues that claim 27 of the ’021 patent is not directed to an abstract idea because it “requires at least a portable microphone,” “language processing logic,” “query

³ Claim 1 of the ’718 patent recites a “mobile information appliance” comprising a “portable remote control device” or a “set-top box for a television.” None of these elements render claim 1 of the ’718 patent non-abstract, and Plaintiff does not argue that they do so.

construction logic,” “user interaction logic,” “query refining logic,” “navigation logic,” and “electronic communications infrastructure.” (D.I. 15, p. 14). Defendants conducted their step one analysis in the context of claim 1 of each of the asserted patents. (D.I. 13, pp. 4-7). None of claim 1 of the ’021 patent, claim 1 of the ’061 patent, or claim 1 of the ’718 patent contain the limitations from claim 27 of the ’021 patent that Plaintiff asserts render the claims non-abstract. I thus find unconvincing Plaintiff’s reliance on claim 27 of the ’021 patent to respond to Defendants’ arguments.

Second, Plaintiff asserts that the claims here are distinguishable from those held ineligible in *Affinity Labs*. (D.I. 15, p. 15). Whereas the *Affinity Labs* claims claimed the abstract idea of “the general concept of out-of-region delivery of broadcast content,” Plaintiff argues that the claims here “are directed to improvements in navigating data sources via spoken input, and for resolving errors and ambiguities in that spoken input by engaging the user in a multi-modal dialogue.” (*Id.*).

I disagree. Plaintiff’s argument fails to consider the claims as a whole. *See Elec. Power Grp. v. Alstom S.A.*, 830 F.3d 1350, 1353 (Fed. Cir. 2016). The only claim at issue that requires multi-modal dialogue is claim 1 of the ’021 patent. Like claim 1 of the ’061 patent and claim 1 of the ’718 patent, claim 1 of the ’021 patent is directed to transmitting electronic data to a user in response to a spoken request from the user. Viewed as a whole, the claims here are similar to those in *Affinity Labs*. The *Affinity Labs* claims covered systems “deliver[ing] streaming content from a network-based resource upon demand to a handheld wireless electronic device,” and the claims here cover methods for transmitting electronic data to a user in response to a spoken request from the user. *Affinity Labs*, 838 F.3d at 1268. Both sets of claims employ broad functional terms to claim systems and methods of delivering content to users, “without providing

any limiting detail that confines the claim[s] to a particular solution to an identified problem.”
Id. at 1269.

Third, Plaintiff complains that like the defendants in *Enfish, McRO, Inc. v. Bandai Namco Games America, Inc.*, 837 F.3d 1299 (Fed. Cir. 2016), and *DDR Holdings, LLC v. Hotels.com, L.P.*, 773 F.3d 1245 (Fed. Cir. 2014), Defendants here oversimplify the claims. (D.I. 15, pp. 10-11). Defendants disagree and maintain their argument that the claims here fail to provide a specific technological improvement or solution to an identified problem. (D.I. 13, p. 14).

I agree with Defendants.

The patents at issue in *Enfish* disclosed and claimed a self-referential data structure that improved the prior art’s relational data structure by allowing for faster searching of data, more effective data storage, and greater flexibility in database configuration. *Enfish*, 822 F.3d at 1331-33. The *McRO* claims represented a specific technical improvement in computer animation: they “allow[ed] computers to produce accurate and realistic lip synchronization and facial expressions,” employing a distinct process (automatic use of rules of a particular type) to automate a task previously performed by humans. *McRO*, 837 F.3d at 1313-14. *DDR*’s claims addressed the problem of retaining website visitors who clicked on third-party hyperlinks by claiming “a new, hybrid web page that merges content associated with the products of the third-party merchant with the stored ‘visually perceptible elements’ from the identified host website.” *DDR*, 773 F.3d at 1257.

Here, though Plaintiff maintains that Defendants strip out “essential claim language,” Plaintiff does not identify the language that it deems essential. (*See* D.I. 15, p. 13). Instead,

Plaintiff vaguely asserts that claim 1 of the '021 patent⁴ “specifically recites a series of steps for how to resolve ambiguities created by trying to merely ‘respond to a spoken request.’” (*Id.*)⁵ This appears to correspond with the specification’s disclosure of one problem with prior art systems—the lack of error correction in translating from natural language input to constructing navigation queries. ('021 patent at 2:44-58). According to Plaintiff, Claim 1 of the '021 patent addresses this problem by its recitation of “soliciting additional input” and “refining the navigation query based upon the additional input.” (*See* D.I. 15, p. 15).

Plaintiff ignores the high level of generality at which these claims and claim elements are drafted. The claims’ “soliciting” and “refining” steps require performance of the basic building blocks of error correction in any context: evaluating performance, gathering additional data, and using that data to update performance. Though performance here corresponds to the navigation query, I have found the navigation query insufficient to tie the claim language to a technological solution or improvement. Like the other claim elements, the “soliciting” and “refining” steps contain no explanation as to how they are accomplished, and nothing ties them specifically to addressing the problem disclosed by the patent—error correction in translating natural language input. Further, claim 1 of the '021 patent is not directed as a whole to resolving errors in navigation query construction. Accordingly, the “soliciting” and “refining” steps do not save claim 1 of the '021 patent from being directed to an abstract idea. Like claim 1 of the '061 patent and claim 1 of the '718 patent, claim 1 of the '021 patent is directed to the broad concept of transmitting electronic data to a user in response to a spoken request from the user.

⁴ Neither claim 1 of the '061 patent nor claim 1 of the '718 patent contain limitations related to this disclosure.

⁵ Plaintiff does not identify any benefits or technological improvements covered by the claims. (*See, e.g.*, D.I. 15, pp. 1, 11-14 (failing to identify any specific benefit disclosed by the specification)).

Fourth, Plaintiff argues that the claims at issue here are “more detailed and specific” than the claim held patent-eligible in *InfoGation Corp. v. ZTE Corp.*, 2017 WL 1135638 (S.D. Cal. March 27, 2017). (D.I. 15, p. 15).

The claim at issue in *InfoGation* claimed a mobile navigation system for calculating and displaying optimal routes using a non-proprietary natural language description. *InfoGation*, 2017 WL 1135638, at *3. It further required a navigation computer, a wireless transceiver, a mapping database, and a display screen. *Id.* After finding that the specification identified problems with prior art real-time mobile navigation systems and explained how the claim represented a technological improvement, the court held the claim patent-eligible. *Id.* at *6-7. As the specification explained, the proprietary data format of prior art mobile navigation systems presented interoperability and efficiency problems. Prior art systems prevented the proprietary server from being “used with navigation systems and mapping databases from other manufacturers, and the transmitted data required high bandwidth communication channels.” *Id.* at *6. The specification also explained that “by using a generic natural language description generated at the server, navigation systems from any vendor can more easily be adapted with the server of the invention, and also the transmitted data is able to travel on lower bandwidth communication channels.” *Id.* (quoting specification). The court concluded that the claim was not directed to an abstract idea, because it was confined to “a specific means, here route data formatted using a non-proprietary, natural language description generated at the server, for improving an existing technological process, here how an online server communicates in real-time with a local mapping database in a mobile navigation system.” *Id.*

Plaintiff asserts that “[t]he same analysis applies here,” because “the claimed inventions are directed to specific improvements in . . . navigating network-based electronic data sources.”

(D.I. 15, p. 13). According to Plaintiff, claim 1 of the '021 patent serves as an example, “specifically recit[ing] a series of steps for how to resolve ambiguities created by trying to merely ‘respond to spoken requests’”—it “sets forth a particular solution involving the use of structured navigation queries and the solicitation of additional input in a different form in order to refine the query. (*Id.*).⁶

I do not find the asserted claims analogous to the claim in *InfoGation*. The claims at issue here are much broader than the *InfoGation* claim. Whereas the *InfoGation* claim was limited “to the use of route data formatted in a non-proprietary, natural language description within a mobile navigation system,” the claims here cover methods for searching any electronic data without limitation. Compare *InfoGation*, 2017 WL 1135638, at *3, 7 with '021 patent at 15:12-33. Additionally, the *InfoGation* court distinguished the claim at issue from claims that share characteristics with those at issue here. *InfoGation*, 2017 WL 1135638, at *6, n.7. The court noted, “Because [the asserted claim] is not directed to communicating with an end user using natural language, the present case is distinguishable” from the patent-ineligible claims in the cases cited by defendants. *Id.* (“The claims at issue in those cases were directed to an improved method/system for providing certain data/information to end users of the network/system, not between technical components within the network/system.”).

Considering the asserted claims as a whole, I find them directed to the abstract idea of retrieving electronic data in response to a spoken request and transmitting the retrieved data to a user. At a more granular level, claim 1 of the '021 patent is essentially directed to (1) receiving

⁶ During oral argument, Plaintiff for the first time asserted that as demonstrated by claim 25 of the '021 patent, “one of the important improvements of this technology was the ability to take the interpretation [of the spoken request] and use it to select the appropriate data source out of a plurality of data sources.” (D.I. 25 at 48:25-49:3). None of claim 1 of the '021 patent, claim 1 of the '061 patent, or claim 1 of the '718 patent recite a limitation directed to selecting a data source. I find that Plaintiff’s argument does not provide an adequate basis for me to decide whether claim 25 of the '021 patent is directed to patent-eligible subject matter.

data (in the format of a spoken request); (2) interpreting the received data; (3) translating the data (from natural language format to navigation query format); (4) soliciting additional data (in a different format) from a user; (5) updating the translation with the additional data solicited from the user; (6) using the resulting translation to search a source of electronic data; and (7) transmitting the search results to the user.⁷ Steps (1)-(5) gather and interpret different types of data (natural language and data from another modality, such as a button press), and translate the data to a single format (navigation query). The claims are thus drafted at a level that requires translating data, using the translation to search an electronic database, and transmitting the results of the search to a user. Though the specification discloses various components that can be used to implement the method, nothing in the claims discloses how these components achieve the goal of the method. *See Yodlee, Inc. v. Plaid Techs. Inc.*, 2016 WL 2982503, at *25 (D. Del. May 23, 2016) (finding claims directed to an abstract idea because they are “focused on the idea of translating data into a new form, but they say almost nothing about how that translation must occur”); *Novo Transforma Techs., LLC v. Sprint Spectrum L.P.*, 2015 WL 5156526, at *3 (D. Del. Sept. 2, 2015), *aff’d*, 669 F. App’x 555 (Fed. Cir. 2016) (“In *Messaging Gateway*, the claimed method was for ‘a computer system [that] receives an SMS text message, converts it into an Internet Protocol message, and delivers the converted message.’ . . . Here, the claim invention performs the same ‘translation’ function. Thus, I find the claims of the ‘034 patent are directed to the abstract idea of ‘translation.’”) (alteration in original). Consequently, the claims here are “aspirational in nature and devoid of any implementation details or technical description that would permit [me] to conclude that the claim as a whole is directed to something other than the abstract idea” of retrieving electronic data in response to a spoken request, and transmitting the retrieved data to a user. *See Move, Inc. v. Real Estate Alliance Ltd.*, 2018 WL 656377, at *3

⁷ Neither claim 1 of the ‘061 patent nor claim 1 of the ‘718 patent requires steps (4) and (5).

(Fed. Cir. Feb. 1, 2018) (characterizing as “aspirational” claims reciting creating a real estate database, displaying a map, zooming in on and selecting narrower portions of the map, and identifying available real estate properties in the selected area).

2. Inventive Concept

The determination that a patent is directed to an abstract idea “does not render the subject matter ineligible.” *Internet Patents Corp. v. Active Network, Inc.*, 790 F.3d 1343, 1346 (Fed. Cir. 2015). Having decided that the patent’s claims are directed to an abstract idea, the Court must next “determine whether the claims do significantly more than simply describe the abstract method.” *Ultramercial*, 772 F.3d at 715. Since “a known idea, or one that is routine and conventional, is not inventive in patent terms,” this analysis “favors inquiries analogous to those undertaken for determination of patentable invention.” *Internet Patents*, 790 F.3d at 1346. Indeed, the Federal Circuit has noted that the two stages of the *Alice* two-step inquiry “are plainly related” and “involve overlapping scrutiny of the content of the claims” *Elec. Power Grp.*, 830 F.3d at 1353. Furthermore, neither “[a] simple instruction to apply an abstract idea on a computer,” nor “claiming the improved speed or efficiency inherent with applying the abstract idea on a computer” satisfies the requirement of an “inventive concept.” *Intellectual Ventures I LLC v. Capital One Bank (USA)*, 792 F.3d 1363, 1367 (Fed. Cir. 2015).

Defendants argue that claim 1 of each of the asserted patents lacks an inventive concept. (D.I. 17, pp. 6-7). Plaintiff submits that several elements of the claims, including the “navigation query” and “multi-modal feedback,” provide an inventive concept.

I agree with Defendants. I find that the specification’s statement that the claims are directed to solving a technological problem cannot overcome the specification’s recitation of

conventional technology to implement the invention, combined with broad, functional claim language that merely describes an abstract idea.

The specification is replete with references to implementing the claims using conventional technology. For example, the specification describes navigation queries (*see* '021 patent at 8:55-9:14), networks (*id.* at 4:38-59), mobile information appliances⁸ (*see id.* at 3:46-60, 5:56-64), and “agents”⁹ (*id.* at 13:1-14:14), as conventional components. It also discloses that speech recognition (i.e., rendering an interpretation of the spoken request) can be achieved by “[a] variety of commercial quality speech recognition engines, [which] are readily available on the market, as practitioners will know.” (*Id.* at 7:19-31). The specification then recites examples of commercially-available products. (*Id.*). Further, as the Federal Circuit has recognized, “That a computer receives and sends the information over a network—with no further specification—is not even arguably inventive.” *buySAFE, Inc. v. Google, Inc.*, 765 F.3d 1350, 1355 (Fed. Cir. 2014).

In arguing an inventive concept, Plaintiff points to the individual limitations of a “navigation query” and process of refining a navigation query through “a novel multi-modal feedback approach to resolving errors and ambiguities in interpreting the original spoken command.” (D.I. 15, pp. 18-19).

I conclude that the recited “navigation query” does not provide an inventive concept.¹⁰ Plaintiff argues that this term, as defined in the specification, “places meaningful limits on the

⁸ This includes the “set-top box,” “portable remote control device,” and “television” recited in claim 1 of the '718 patent.

⁹ Plaintiff concedes that neither “agents” nor “facilitators” provide an inventive concept. (C.A. No. 17-055, D.I. 16, p. 16 (“The patents do not claim that these elements are inventive, nor do the patents claim to invent or improve upon [Open Agent Architecture].”)).

¹⁰ Plaintiff contends that the term “navigation query” requires construction before the disposition of this motion. (D.I. 15, p 7). Plaintiff proposes construing “navigation query” as it is defined in the specification. I agree. But this definition, considered in light of the specification, indicates that the “navigation query” fails to provide an inventive concept.

claims.” (*Id.* pp. 7-8). According to the specification, a “navigation query” is “an electronic query, form, series of menu selections, or the like; being structured appropriately so as to navigate a particular data source of interest in search of desired information.” (D.I. 15, p. 7 (citing ’021 patent at 8:55-58)). This definition sweeps broadly to cover any query that would work to return desired results from a database. The specification further describes the navigation query as “includ[ing] whatever content and structure is required in order to access desired information electronically from a particular database or data source of interest.” (’021 patent at 8:59-62). It does not provide any information regarding how to create a navigation query, or what structure is required. (*See id.* at 8:40-10:38). The lack of any teaching in the specification about how to construct a navigation query suggests that processes for constructing navigation queries were known in the art. *Hybritech Inc. v. Monoclonal Antibodies, Inc.*, 802 F.2d 1367, 1384 (Fed. Cir. 1986) (“a patent need not teach, and preferably omits, what is well known in the art”). The specification confirms this, stating, “Practitioners of ordinary skill in the art will be thoroughly familiar with the notion of database navigation through structured query, and will be readily able to appreciate and utilize the existing data structures and navigational mechanisms for a given database, or to create such structures and mechanisms where required.” (’021 patent at 9:9-14); *see Move, Inc.*, 2018 WL 656377, at *5 (finding no inventive concept conferred by zoom feature, given the “the specification’s teaching that the invention can be performed using a generic IBM or compatible personal computer system, and the failure to provide any implementation details for the zoom feature”). Accordingly, I conclude that the “navigation query” imparts no inventive concept to the claims.

Similarly, I find that the “multimodal feedback approach” fails to provide an inventive concept for claim 1 of the ’021 patent. The Federal Circuit has held that claim language that

“does not provide any specific showing of what is inventive about the [the claim limitation at issue] or about the technology used to generate and process it” does not provide an inventive concept. *Secured Mail Sols. LLC v. Wilde, Inc.*, 873 F.3d 905, 912 (Fed. Cir. 2017). As Plaintiff points out, the claims do not describe how to interpret the spoken request or determine what feedback to seek, or how to “generat[e] a menu list from the user’s initial query.” (D.I. 17, p. 6). At the level the claims are drafted, the multi-modal feedback essentially requires gathering additional data in a non-spoken modality and using the data to modify the initial navigation query, without further limitation as to how this is accomplished in the context of generating a navigation query from a spoken request. Refining search terms in a database query does not qualify as inventive, even if for the purpose of error correction.¹¹ Additionally, neither the claims nor the specification provide any information to support an inference that this element is unconventional. Examples provided in the specification support the opposite conclusion—a user can press “buttons on the remote control, to select the desired title from the menu.” (’021 patent, 11:59-67; 12:25-30 (“The user can then simply press an ‘OK’ button—or perhaps mix modalities by saying ‘yes, exactly’—to choose that selection.)). The specification does not provide any information that describes how this conventional “button press” is linked to refining the navigation query that would allow me to conclude that the multi-modal feedback process is unconventional. Therefore, I conclude that the multimodal feedback approach does not provide an inventive concept.

¹¹ Humans have used search terms to run database searches for decades. When the initial search terms do not produce the desired result, humans have utilized additional information to modify their terms and refine their database searches. Examples include legal database searches and searching for a library book using the library’s card catalog. In a legal database search, for example, a lawyer searching for a particular case in a legal database may enter the name of one of the parties as a search term. If that search yields an unmanageable number of results, the lawyer may refine the search to add information about, for example, the deciding court and year of decision.

Plaintiff also complains that Defendants have failed to address the claims as a whole, but does not specify or explain how the claims as a whole provide an inventive concept. (D.I. 15, p. 18). In conclusory fashion, Plaintiff argues:

[T]he elements of claim 1 of the '021 patent, when properly considered individually and as an ordered combination, describe a specific method for speech-based navigation of an electronic data source, the electronic data source being located at one or more network servers located remotely from a user. The method claims a 'specific way of doing something' with specific computer machinery and software, including at least an electronic data source, a networked server, and a client device.

(*Id.*). The specification discloses that in one embodiment, a client device may be a "television monitor or other similar audiovisual entertainment device" ('021 patent at 5:33-35); in another embodiment, the function of the client device may be performed by a "cellular telephone or wireless personal digital assistant." (*Id.* at 5:54-64). The specification thus indicates that the "client device" is not as specific as Plaintiff makes it out to be. Having already found the asserted claims directed to an abstract idea, and that an "electronic data source" and a "network server" are generic terms in the context of the asserted patents, I must reject Plaintiff's argument. *See supra* at 9-10.

Considering the claim elements as an ordered combination also fails to impart an inventive concept. Though none of the steps individually provide an inventive concept or require specific hardware or software, the asserted method claims could still provide an inventive concept if their steps were arranged in an unconventional manner. This, however, is not the case. The claims do not limit the recited functions to particular pieces of hardware or software, and the specification expressly allows the functional components of request processing to be allocated between the client and the server. ('021 patent at 6:41-43). Additionally, the method steps in each claim are arranged sequentially, and any changes to their ordering would render the claims

useless for accomplishing their goal. For example, it is impossible to interpret a spoken request without receiving one, and impossible to refine a query that has not yet been constructed. Therefore, I find that the ordered combination of claim elements does not impart an inventive concept to the asserted claims.

Plaintiff urges that since claim construction is necessary to at least step two of the § 101 analysis, I should deny Defendants' motion. (D.I. 15, pp. 7-8). According to Plaintiff, Defendants' arguments that the patent fails to describe with any specificity the "soliciting" step, the "refining" step, and the "client device" necessarily require construction of these terms because Defendants' arguments "implicate the meaning and scope" of these terms. (*Id.* p. 7). I do not find claim construction of these terms a necessary predicate to deciding this motion. Plaintiff does not propose any interpretation of these terms, let alone one that it argues would render the claims patentable. (*See id.* pp. 7-8).

Plaintiff further argues that "multiple factual issues preclude dismissal," including, for example, whether claim elements were conventional and whether the claims are directed to a technological improvement. (*Id.* p. 8). The patents indicate that the claim elements were conventional. Plaintiff does not point to a different source of factual information that contradicts this indication.¹² I thus conclude that Plaintiff has not raised an issue of fact that would preclude dismissal.

Finally, Plaintiff argues that due to the "specific hardware and/or software" required by the claim limitations, the claims do not preempt the entire field. (*Id.* p. 20). Even if the claims are directed to an abstract idea, Plaintiff maintains that there is no preemption concern because the claims do not preempt "all ways of responding to spoken requests." (*Id.*). A claim does not

¹² Nor does the complaint, a source properly considered at the motion to dismiss stage, contain any assertion that the claim elements were unconventional. (*See* D.I. 1).

contain an inventive concept simply because it does not preempt the field. Having determined that the asserted claims “disclose patent ineligible subject matter under the *Mayo* framework . . . preemption concerns are fully addressed and made moot.” *Ariosa Diagnostics, Inc. v. Sequenom, Inc.*, 788 F.3d 1371, 1379 (Fed. Cir. 2015), *cert. denied*, 136 S. Ct. 2511 (2016).

For the reasons given above, I find that claim 1 of the '021 patent, claim 1 of the '061 patent, and claim 1 of the '718 patent are each drawn to an abstract idea and that none provides an inventive concept.

I note that Plaintiff has recently filed a motion to amend its complaint in its case against the Amazon Defendants (D.I. 28), which I expect to grant once briefing on it is complete. *See Aatrix Software, Inc. v. Green Shades Software, Inc.*, 882 F.3d 1121, 1126-28 (Fed. Cir. 2018). I have not considered the allegations of the proposed first amended complaint in the disposition of Plaintiff's motion to dismiss (D.I. 12). No similar motion has been filed to date in any of the other five related cases.

IV. CONCLUSION

For the reasons set forth above, Defendants' motion to dismiss (D.I. 12) is **GRANTED** as to claim 1 of the '021 patent, claim 1 of the '061 patent, and claim 1 of the '718 patent. An appropriate order will be entered for each of the captioned cases.