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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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*Ex parte* RODNEY HOOK, FOSTER JOHN PROVOST, BRIAN MAY,  
and BRIAN DALESSANDRO

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Appeal 2017-004636  
Application 12/700,728  
Technology Center 3600

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Before MURRIEL E. CRAWFORD, ANTON W. FETTING, and  
MATTHEW S. MEYERS, *Administrative Patent Judges*.

CRAWFORD, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Appellants seek our review under 35 U.S.C. § 134 of the Examiner's final rejection of claims 1–9, 11–28, 30–33, 35, 36, and 38. We have jurisdiction under 35 U.S.C. § 6(b). Appellants appeared for oral hearing on March 26, 2019.

SUMMARY OF DECISION

We AFFIRM.

THE INVENTION

Appellants claim methods, systems, and media for targeting online advertisements to users using brand affinity modeling. (Spec. ¶ 2, Title).

Claim 1 with emphasis added is representative of the subject matter on appeal.

1. A method, comprising:

receiving, by a processor, visitation data, the visitation data including indications that a plurality of user devices has accessed a plurality of websites;

associating a browser identifier with each user device from the plurality of user devices, each browser identifier being anonymous with respect to a user associated with each user device;

creating, by the processor, a plurality of browser nodes, each browser node from the plurality of browser nodes representing a single browser identifier;

associating a content identifier with each website from the plurality of websites, each content identifier being anonymous with respect to and excluding content of each website from the plurality of websites;

creating, by the processor, a plurality of website nodes, each website node from the plurality of website nodes representing a single content identifier

creating, by the processor, a plurality of links, each link from the plurality of links being between one browser node from the plurality of browser nodes and one website node from the plurality of website nodes and representing a user device from the plurality of user devices visiting a website from the plurality of websites, the plurality of browser nodes, the plurality of website nodes, and the plurality of links, collectively, being a quasi-social network;

selecting, by the processor, a plurality of seed nodes from the plurality of browser nodes, each seed node from the plurality of seed nodes representing a user device from the plurality of user devices that has performed a brand action relating to a website that is not associated with a content identifier, the brand action being indicative of brand affinity;

determining, by the processor, a plurality of candidate nodes from the plurality of browser nodes based at least in part on a distance from at least one seed node in the quasi-social network;

calculating, by the processor, a brand proximity measure for each candidate node from the plurality of candidate nodes;  
generating a ranking of the plurality of candidate nodes based on the brand proximity measure for each candidate node from the plurality of candidate nodes; and  
selecting a brand audience for serving an advertisement based on the ranking.

### THE REJECTION

Claims 1–9, 11–28, 30–33, 35, 36, and 38 are rejected under 35 U.S.C. § 101 as directed to a judicial exception without significantly more.

### ANALYSIS

#### 35 U.S.C. § 101 REJECTION

We will sustain the rejection of claims 1–9, 11–28, 30–33, 35, 36, and 38 under 35 U.S.C. § 101.

The Supreme Court

set forth a framework for distinguishing patents that claim laws of nature, natural phenomena, and abstract ideas from those that claim patent-eligible applications of those concepts. First, . . . determine whether the claims at issue are directed to one of those patent-ineligible concepts. . . . If so, . . . then ask, “[w]hat else is there in the claims before us?” . . . . To answer that question, . . . consider the elements of each claim both individually and “as an ordered combination” to determine whether the additional elements “transform the nature of the claim” into a patent-eligible application. . . . [The Court] described step two of this analysis as a search for 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.”

*Alice Corp. v. CLS Bank Int'l*, 573 U.S. 208, 217–218 (2014) (citing *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 566 U.S. 66, 72–73 (2012)) (citations omitted).

To perform this test, we must first determine whether the claims at issue are directed to a patent-ineligible concept. The Federal Circuit has explained that “the ‘directed to’ inquiry applies a stage-one filter to claims, considered in light of the specification, based on whether ‘their character as a whole is directed to excluded subject matter.’” *See Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1335 (Fed. Cir. 2016) (quoting *Internet Patents Corp. v. Active Network, Inc.*, 790 F.3d 1343, 1346 (Fed. Cir. 2015)). It asks whether the focus of the claims is on a specific improvement in relevant technology or on a process that itself qualifies as an “abstract idea” for which computers are invoked merely as a tool. *See id.* at 1335–36.

In so doing we apply a “directed to” two prong test: 1) evaluate whether the claim recites a judicial exception, and 2) if the claim recites a judicial exception, evaluate whether the judicial exception is integrated into a practical application. *2019 Revised Patent Subject Matter Eligibility Guidance*, 84 Fed. Reg. 50 (Jan. 7, 2019) (“Guidance”).

The Examiner determines that the claims are directed to comparing new and stored information and using rules to identify options. (Final Act. 2). The Examiner also determines that the claims are directed to targeting advertising, and targeting advertising is a fundamental economic practice. (*Id.* at 3). The Examiner finds the limitations other than the abstract idea are “merely instructions to implement the abstract idea on a computer and require no more than a generic computer to perform generic computer

functions that are well-understood, routine and conventional activities previously known to the industry.” (*Id.*)

The Specification discloses that advertisers have been challenged in the past to discern which advertisements can most profitably be shown to which consumers since consumers spend an increasing percentage of their time on Internet accessing social networking websites that defy easy categorization. (Spec. ¶¶ 3–5). The Specification also discloses that the problem of matching advertisements and consumers has become more acute as the exploding popularity of social networking sites has increased the number of advertisement impressions seen at these sites. (*id.* ¶ 6). As such, the claimed invention is primarily directed toward identifying advertising audiences. (*Id.* ¶ 33).

Claim 1 recites several data gathering steps such as “receiving . . . visitation data, the visitation data including indications that a plurality of user devices has accessed a plurality of websites,” and “associating a browser identifier with each user device from the plurality of user devices, each browser identifier being anonymous with respect to a user associated with each user device.” The data is gathered in furtherance of identifying advertising audiences. (*Id.*)

Claim 1 also recites several steps that are used to identify which websites are visited by which users. These steps include “creating, by the processor, a plurality of browser nodes, each browser node from the plurality of browser nodes representing a single browser identifier;” “associating a content identifier with each website from the plurality of websites;” and “creating . . . a plurality of website nodes, each website node from the plurality of website nodes representing a single content identifier.” Claim 1

also recites steps of identifying those people who exhibit brand affinity i.e. identifying seed nodes. These steps include “selecting . . . a plurality of seed nodes from the plurality of browser nodes, each seed node from the plurality of seed nodes representing a user device from the plurality of user devices.”

Lastly claim 1 recites steps of selecting candidates or targets to receive the advertisement. These steps include “determining, . . . a plurality of candidate nodes from the plurality of browser nodes based at least in part on a distance from at least one seed node in the quasi-social network;” “calculating . . . a brand proximity measure for each candidate node from the plurality of candidate nodes;” “generating a ranking of the plurality of candidate nodes based on the brand proximity measure for each candidate node from the plurality of candidate nodes;” and “selecting a brand audience for serving an advertisement based on the ranking.”

As such, claim 1 essentially recites the steps of identifying websites visited, identifying seed nodes or users that have brand loyalty and selecting an audience for the advertisement based on the proximity of the user node to the seed node. Therefore, in accordance with the disclosure in the Specification, claim 1 recites a method in which data are gathered in furtherance of identifying advertisement audiences.

We agree with the Examiner that the claims recite a method of targeting advertisement. Targeting advertisement is a fundamental economic practice. Guidance 54.

In addition, the steps of claim 1 constitute “analyzing information by steps people go through in their minds, or by mathematical algorithms, without more, as essentially mental processes within the abstract-idea category.” *Elec. Power Grp., LLC v. Alstom S.A.*, 830 F.3d 1350, 1354

(Fed. Cir. 2016); *see also buySAFE, Inc. v. Google, Inc.*, 765 F.3d 1350, 1355 (Fed. Cir. 2014) (claims directed to certain arrangements involving contractual relations are directed to abstract ideas). Thus, we find that the claims recite a mental process.

Turning to the second prong of the “directed to test,” claim 1 merely requires a “processor” and a “user device.” The recitation of the words “processor” and “user device” does not impose “a meaningful limit on the judicial exception, such that the claim is more than a drafting effort designed to monopolize the judicial exception.” Guidance at 53. In this regard, the recitation does not affect an improvement in the functioning of a processor or user device or other technology. We note that the introduction of a computer into the claims does not alter the analysis in *Alice*.

[T]he mere recitation of a generic computer cannot transform a patent-ineligible abstract idea into a patent-eligible invention. Stating an abstract idea “while adding the words ‘apply it’” is not enough for patent eligibility. Nor is limiting the use of an abstract idea “to a particular technological environment.” Stating an abstract idea while adding the words “apply it with a computer” simply combines those two steps, with the same deficient result. Thus, if a patent’s recitation of a computer amounts to a mere instruction to “implemen[t]” an abstract idea “on . . . a computer,” that addition cannot impart patent eligibility. This conclusion accords with the preemption concern that undergirds our § 101 jurisprudence. Given the ubiquity of computers, wholly generic computer implementation is not generally the sort of “additional featur[e]” that provides any “practical assurance that the process is more than a drafting effort designed to monopolize the [abstract idea] itself.”

*Alice*, 573 U.S. at 223–24 (alterations in original) (citations omitted).

Instead, “the relevant question is whether the claims here do more than simply instruct the practitioner to implement the abstract idea . . . on a generic computer.” *Id.* at 225. They do not.

In addition, the Specification discloses that server 810 or processor and workstation 802 or user device can be any general purpose device with any suitable components. (Spec. ¶ 104). As such, claim 1 does not recite a particular machine or manufacture that is integral to the claims. And claim 1 does not recite a transformation of a particular article to a different state or thing. *Id.* Thus, claim 1 is directed to a judicial exception and thus an “abstract idea.”

Turning to the second step of the *Alice* analysis, because we find that the claims are directed to abstract ideas/judicial exceptions, the claims must include an “inventive concept” in order to be patent-eligible, i.e., there must be an element or combination of elements that is sufficient to ensure that the claim in practice amounts to significantly more than the abstract idea itself. *See Alice*, 573 U.S. at 217–218 (alteration in original) (quoting *Mayo*, 566 U.S. at 72–73).

Taking the claim elements separately, the function performed by the computer at each step of the process is purely conventional. Using a computer to retrieve, select, and apply decision criteria to data and modify the data as a result amounts to electronic data query and retrieval—one of the most basic functions of a computer. All of these computer functions are well-understood, routine, conventional activities previously known to the trading industry. *See Elec. Power Grp.*, 830 F.3d at 1354; *see also In re Katz Interactive Call Processing Patent Litig.*, 639 F.3d 1303, 1316 (Fed. Cir. 2011) (“Absent a possible narrower construction of the terms

‘processing,’ ‘receiving,’ and ‘storing,’ . . . those functions can be achieved by any general purpose computer without special programming”). In short, each step does no more than require a generic computer to perform generic computer functions. As to the data operated upon, “even if a process of collecting and analyzing information is ‘limited to particular content’ or a particular ‘source,’ that limitation does not make the collection and analysis other than abstract.” *SAP Am. Inc. v. InvestPic, LLC*, 890 F.3d 1016, 1022 (Fed. Cir. 2018).

Considered as an ordered combination, the computer components of Appellants’ claims add nothing that is not already present when the steps are considered separately. The sequence of data reception-analysis-access/display is equally generic and conventional or otherwise held to be abstract. *See Ultramercial, Inc. v. Hulu, LLC*, 772 F.3d 709, 715 (Fed. Cir. 2014) (sequence of receiving, selecting, offering for exchange, display, allowing access, and receiving payment recited an abstraction), *Inventor Holdings, LLC v. Bed Bath & Beyond, Inc.*, 876 F.3d 1372, 1378 (Fed. Cir. 2017) (holding that sequence of data retrieval, analysis, modification, generation, display, and transmission was abstract), *Two-Way Media Ltd. v. Comcast Cable Commc’ns, LLC*, 874 F.3d 1329, 1339 (Fed. Cir. 2017) (holding sequence of processing, routing, controlling, and monitoring was abstract). The ordering of the steps is, therefore, ordinary and conventional.

The claims do not, for example, purport to improve the functioning of the computer itself. The claims do not affect an improvement in any other technology or technical field. The Specification spells out different generic equipment and parameters that might be applied using this concept and the particular steps such conventional processing would entail based on the

concept of information access under different scenarios. (*See, e.g.*, Spec. ¶ 104). Thus, claim 1 amounts to nothing significantly more than instructions to apply the abstract idea of information access using some unspecified, generic computer. Under our precedents, that is not enough to transform an abstract idea into a patent-eligible invention. *See Alice*, 573 U.S. at 2360.

We have reviewed all the arguments (Appeal Br. 7–19) Appellants have submitted concerning the patent eligibility of the claims before us that stand rejected under 35 U.S.C. § 101. We find that our analysis above substantially covers the substance of all the arguments, which have been made. But, for purposes of completeness, we will address various arguments in order to make individual rebuttals of same.

Appellants argue that claim 1 recites an innovative logical model for selecting a brand audience not found in typical audience targeting methods which represents a technical improvement and is similar to the claims in *Enfish*. (Appeal Br. 10). Specifically, Appellants argue that the use of a quasi-social network, as recited in claim 1, represents a logical model that constitutes an improvement of existing technology. (Appeal Br. 11). We note that there is a fundamental difference between computer functionality improvements, on the one hand, and uses of existing computers as tools to perform a particular task, on the other. While the Appellants may be correct that the claim recites a logical model, there is no recitation of an improvement in the way that the processor or user device operates.

We are not persuaded of error on the part of the Examiner by Appellants' argument that the claims on appeal are similar to the claims in *DDR Holdings, LLC v. Hotels.com, L.P.*, 773 F.3d 1245 (Fed. Cir. 2014). In *DDR*, the court stated that “the [] patent’s claims address the problem of

retaining website visitors that, if adhering to the routine, conventional functioning of Internet hyperlink protocol, would be instantly transported away from a host's website after 'clicking' on an advertisement and activating a hyperlink." *DDR Holdings*, 773 F.3d at 1257. This was done in the claim by serving a composite page with content based on the link that was activated to serve the page.

In contrast, claim 1 performs a process that identifies candidates for receiving advertisements. While the processor and user device is used to perform the steps of claim 1, there is no improvement of the processor or user device recited in claim 1. And, unlike the situation in *DDR*, we find no indication in the record, nor do Appellants point us to any indication, that a computer network, or the Internet, in particular, is used other than in its normal, expected, and routine manner, e.g., for receiving and transmitting information.

We are not persuaded of error on the part of the Examiner by Appellants' argument that the claims are analogous to the claims in *BASCOM Global Internet Servs. v. AT&T Mobility LLC*, 827 F.3d 1341 (Fed. Cir. 2016). (Appeal Br. 15). More particularly, Appellants contend that claim 1 recites "a technical improvement over prior known systems by allowing an appropriate audience to be identified without the content of the webpages being analyzed." (Appeal Br. 16).

As such, Appellants assert that, like the claims in *BASCOM*, the present claims particular arrangement of elements then properly viewed as an ordered combination represent at least two improvements of prior art ways of identifying an audience. (Appeal Br. 16). Appellants specifically argue that prior known techniques for identifying audiences are inadequate

for identifying an appropriate audience when a user's interests cannot be inferred from the content of a webpage and also that in the invention of claim 1, nodes are anonymous to both the content of websites and the users who's browsers are used to visit the website.

In *BASCOM*, the Federal Circuit followed the Supreme Court's guidance for determining whether the claims recite an inventive concept set forth in *Alice*, 573 U.S. at 220–26.

In *Alice*, the Supreme Court explained that, under the second step of the patent-eligibility analysis, “the relevant question is whether the claims here do more than simply instruct the practitioner to implement the abstract idea of intermediated settlement on a generic computer.” *Id.* at 225. The Supreme Court also provided examples of claims that represent more than instructions to implement an abstract idea on a generic computer, such as claims that purport to improve the functioning of the computer itself and claims that effect an improvement in any other technology or technical field. *Id.* at 220–26.

Turning to *BASCOM*, the Federal Circuit held “[t]he inventive concept described and claimed in the '606 patent is the installation of a filtering tool at a specific location, remote from end-users, with customizable filtering features specific to each end user.” 827 F.3d at 1350. In determining this feature to be an inventive concept, the Federal Circuit explained that the remote location of a filtering tool having customizable user-specific filtering features provides the filtering tool both the benefits of a filter on a local computer and the benefits of a filter on the ISP server and is a technical improvement over prior art ways of filtering content. *Id.* at 1350–51. Notably, the Federal Circuit specifically determined that “the

claims may be read to ‘improve[] an existing technological process.’” *Id.* at 1351 (citing *Alice*, 573 U.S. at 223).

Here, Appellants have not demonstrated any particular arrangement in the claim as providing an inventive concept parallel to *BASCOM’s* technology-based solution.

We are also not persuaded that claim 1 includes a nonconventional process because of the creation of browser and website nodes that are anonymous. This argument of Appellants fails because Appellants conflate the conventionality of the steps being performed by a processor and the conventionality of the computer functions required to implement the steps. In this regard, the processor and user device perform the functions of the abstract idea in a conventional and well-known manner. We agree with the Examiner that claim 1 does not recite a new type of computer system comprising a processor and medium but rather the use of conventional and generic technology in a nascent but well-known environment without reflecting an inventive solution to any problem presented much like the claims in *In re TLI Comme’ns LLC Patent Litig.*, 823 F.3d 607 (Fed. Cir. 2016). (Ans. 4).

In view of the foregoing, we will sustain the Examiner’s rejection of claim 1. We will also sustain the Examiner’s rejection of claims 2–9, 11, and 12 because the Appellants have not argued the separate eligibility of these claims. We will also sustain the rejection as it is directed to the remaining claims because the Appellants make similar arguments regarding eligibility for independent claims 13 and 25 from which the remaining claims depend.

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### CONCLUSIONS OF LAW

We conclude the Examiner did not err in rejecting claims on appeal under 35 U.S.C. § 101.

### DECISION

The decision of the Examiner to reject claims 1–9, 11–28, 30–33, 35, 36, and 38 is affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a). *See* 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED