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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte NIPUN MATHUR

Appeal 2018–004051
Application 13/777,857
Technology Center 3600

Before CAROLYN D. THOMAS, JEREMY J. CURCURI, and
IRVIN E. BRANCH, *Administrative Patent Judges*.

BRANCH, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE¹

Pursuant to 35 U.S.C. § 134(a), Appellant appeals from the Examiner’s decision to reject claims 23–38, which are all of the pending claims.² *See* Final Act. 1. We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM.

CLAIMED SUBJECT MATTER

The claims are directed to “selecting and serving advertisements targeted to users of an online system while those users are not part of an online session with the online system.” Spec. ¶ 1. Claim 23, reproduced below with disputed limitations emphasized in *italics*, is illustrative of the claimed subject matter:

23. A method comprising:

[a] maintaining a user profile for each of a plurality of users of an online system, where each user profile stores a set of user profile characteristics for one of the plurality of users of the online system;

[b] receiving, at the online system, a request from an advertiser to present an advertisement to one or more of the plurality of users of the online system;

[c] receiving, at the online system, a targeted user profile characteristic from the advertiser, where a user of the plurality of users of the online system is eligible to be presented with the

¹ We refer to the Specification, filed February 26, 2013 (“Spec.”); Final Office Action, mailed March 10, 2016 (“Final Act.”); Appeal Brief, filed January 24, 2017 (“Appeal Br.”); Examiner’s Answer, mailed January 5, 2018 (“Ans.”); and Reply Brief, filed March 5, 2018 (“Reply Br.”).

² We use the word Appellant to refer to “applicant” as defined in 37 C.F.R. § 1.42. Appellant identifies Facebook, Inc. as the real party in interest. Appeal Br. 2.

advertisement if the user profile for the user contains the targeted user profile characteristic;

[d] *determining an impression opportunity* to serve the advertisement to a viewing user of the plurality of users of the online system;

[e] *determining that the user profile for the viewing user cannot be identified because the viewing user does not have a current online session with the online system*;

[f] selecting a plurality of comparable users of the plurality of users of the online system, where the comparable users are selected based on the comparable users having browsing histories that overlap a browsing history of the viewing user, and where the comparable users have a current online session with the online system;

[g] determining that the targeted user profile characteristic is contained in the user profile of each of a plurality of the selected comparable users;

[h] associating the targeted user profile characteristic with the viewing user;

[i] determining that the viewing user is eligible to be presented with the advertisement because the targeted user profile characteristic has been associated with the viewing user;
and

[j] sending the advertisement for presentation to the viewing user.

REFERENCES

The prior art relied upon by the Examiner is:

Name	Reference	Date
Wang	US 2009/0216616 A1	Aug. 27, 2009
Doughty	US 2013/0124331 A1	May 16, 2013

REJECTIONS

Claim 38 stands rejected under 37 U.S.C. § 112, second paragraph, because the term “the computer processor” lacks antecedent basis. Final Act. 3.

Claims 23–38 stand rejected, under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement. Final Act. 5–6.

Claims 23–38 stand rejected under 35 U.S.C. § 101 as being directed to patent-ineligible subject matter. Final Act. 6–10.

Claims 23–38 stand rejected under 35 U.S.C. § § 103(a) as being obvious over Doughty or the combination of Doughty and Wang. Final Act. 10–15.

We review the appealed rejections for error based upon the issues identified by Appellant, and in light of the arguments and evidence produced thereon. *Ex parte Frye*, 94 USPQ2d 1072, 1075 (BPAI 2010) (precedential). We have only those arguments Appellant actually raised in the Briefs. Any other arguments Appellant could have made but chose not to make in the Briefs are deemed to be waived. *See* 37 C.F.R. § 41.37(c)(1)(iv).

ANALYSIS

We have reviewed the Examiner’s rejections in light of Appellant’s arguments. To the extent consistent with our analysis herein, we adopt as our own the findings and reasons set forth by the Examiner in: (1) the action from which this appeal is taken; and (2) the Examiner’s Answer in response to Appellant’s Appeal Brief and concur with the conclusions reached by the Examiner. Final Act. 3, 5–15; *see also* Ans. 5–27. We highlight the following for emphasis.

35 U.S.C. § 112, SECOND PARAGRAPH

The Examiner rejects claim 38 because the term “the computer processor” lacks antecedent basis. Final Act. 3. Appellant does not argue this rejection of claim 38 with particularity. *See generally* Appeal Br. 6–24; *see also* Reply Br. 2–7.

Because Appellant does not persuasively rebut the Examiner’s rejection, we sustain the rejection.

35 U.S.C. § 112, FIRST PARAGRAPH

The independent claims each recite “determining an impression opportunity.” The Examiner rejects all claims because this term “was not described in the [S]pecification in such a way as to reasonably convey to one skilled in the relevant art that the inventor[], at the time the application was filed, had possession of the claimed invention.” Final Act. 5–6. The Examiner finds that “**neither** the claim **nor** the [S]pecification discloses **how** to achieve the generic step/function; . . . any and/or all *impression opportunit(ies)* intended in any/all ways *to serve* in any/all ways.” *Id.* at 6.

Appellant identifies paragraphs 6, 17, and 55 as disclosing this subject matter (Appeal Br. 4) and argues that “‘determining an ad impression opportunity’ is a well-known concept in online advertising and merely refers to determining that there is an opportunity to serve an ad to a user. For example, . . . including on web pages, in push notifications, within mobile games, embedded in online videos, and many more.” (*id.* at 7). *See also* Reply Br. 2 (The Appeal Brief “sets forth reasons how and why the [S]pecification reasonably conveys how to achieve the features recited in each determining limitation and . . . explains how and why, consistent with case law, it is not necessary to spell out every detail of these limitations.”).

We are unpersuaded of error because Appellant’s argument does not address the substance of the written description requirement, focusing instead on the enablement requirement, which was not the basis of the rejection. *See* 35 U.S.C. § 112, second paragraph. Instead, here the Examiner is looking for disclosed species for performing the claimed functions.

Specifically, factors to consider include (a) whether the claim itself recites limitations as to how the function is performed; and (b) whether the Specification identifies a way of performing the claimed function, such as a specific type of microcomputer or an algorithm, that defines the scope of the functional claim language, without importing limitations from the Specification into the claim. *LizardTech, Inc. v. Earth Res. Mapping, Inc.*, 424 F.3d 1336, 1343-46 (Fed. Cir. 2005); *In re Hayes Microcomputer Prods., Inc. Patent Litigation*, 982 F.2d 1527, 1534 (Fed. Cir. 1992). To that end, we note that independent claim 23 does not recite how the function is performed. We also note that the Specification only identifies a general-purpose computing device (Spec. ¶ 63) and no algorithm for “determining an impression opportunity to serve the advertisement to a viewing user.”

Although Appellant’s argument in the Brief lists example of serving the ad, Appellant fails to direct our attention to where these species are specifically disclosed in the written description. Accordingly, we sustain the rejection of all claims on this basis.

35 U.S.C. § 101

Section 101 defines patentable subject matter: “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.” See 35 U.S.C. § 101. The U.S. Supreme Court, however, has “long held that this provision contains an important implicit exception” that “[l]aws of nature, natural phenomena, and abstract ideas are not patentable.” *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 566 U.S. 66, 70 (2012) (quotation omitted). “Eligibility under 35 U.S.C. § 101 is a question of law, based on underlying facts.” *SAP Am., Inc. v. InvestPic, LLC*, 898 F.3d 1161, 1166 (Fed. Cir. 2018).

To determine patentable subject matter, we undertake a two-part test. “First, we determine whether the claims at issue are directed to one of those patent-ineligible concepts” of “laws of nature, natural phenomena, and abstract ideas.” *Alice Corp. Pty. Ltd. v. CLS Bank Int’l*, 573 U.S. 208, 217 (2014). “The inquiry often is whether the claims are directed to ‘a specific means or method’ for improving technology or whether they are simply directed to an abstract end-result.” *RecogniCorp, LLC v. Nintendo Co.*, 855 F.3d 1322, 1326 (Fed. Cir. 2017) (citation omitted). A court must be cognizant that “all inventions at some level embody, use, reflect, rest upon, or apply laws of nature, natural phenomena, or abstract ideas” (*Mayo*, 566 U.S. at 71), and “describing the claims at . . . a high level of abstraction and untethered from the language of the claims all but ensures that the exceptions to § 101 swallow the rule.” *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1337 (Fed. Cir. 2016). Instead, “the claims are considered in their entirety to ascertain whether their character as a whole is directed to excluded subject matter.” *Internet Patents Corp. v. Active Network, Inc.*, 790 F.3d 1343, 1346 (Fed. Cir. 2015).

If the claims are directed to an abstract idea or other ineligible concept, then we continue to the second step and “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.” *Alice*, 573 U.S. at 217 (quoting *Mayo*, 566 U.S. at 79, 78). The Court describes the second step 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.’” *Id.* (quoting *Mayo*, 566 U.S. at 72–73).

In 2019, the Office published revised guidance on the application of § 101. USPTO, *2019 Revised Patent Subject Matter Eligibility Guidance*, 84 Fed. Reg. 50 (Jan. 7, 2019) (“Revised Guidance, 84 Fed. Reg.,” “Revised Guidance,” or “Guidance”); *see also* USPTO, *October 2019 Update: Subject Matter Eligibility*, available at https://www.uspto.gov/sites/default/files/documents/peg_oct_2019_update.pdf (Oct. 17, 2019) (“Oct. 2019 Guidance”). Under the Revised Guidance, we look to whether the claim recites

- (1) a judicial exception, such as a law of nature or any of the following groupings of abstract ideas:
 - (a) mathematical concepts, such as mathematical formulas;
 - (b) certain methods of organizing human activity, such as a fundamental economic practice; or
 - (c) mental processes, such as an observation or evaluation performed in the human mind;

- (2) any additional limitations that integrate the judicial exception into a practical application (*see* MPEP § 2106.05(a)–(c), (e)–(h)); and
- (3) any additional limitations beyond the judicial exception that, alone or in combination, were not “well-understood, routine, conventional” in the field (*see* MPEP § 2106.05(d)).

See Revised Guidance, 84 Fed. Reg. 52, 55, and 56. Under the Revised Guidance, if the claim does not recite a judicial exception, then it is eligible under 35 U.S.C. § 101, and no further analysis is necessary. *Id.* at 54. Similarly, under the guidance, “if the claim as a whole integrates the recited judicial exception into a practical application of that exception,” then no further analysis is necessary. *Id.* at 53, 54.

USPTO Step 2A, Prong 1

The Examiner determines that the claims recite “processing advertising commercial/contractual information,” which we conclude recites mental processes, a type of abstract idea. Final Act. 7 (citing *SmartGene*³). The Examiner further determines as follows:

Although the steps may not or may add a degree of particularity (i.e. by way of draftman’s art), a majority of the limitations of the claim(s) merely describe (e.g. by breaking down into basic/fundamental steps of) the abstract idea/concept. Applicant’s description of the abstract idea may be narrow, but

³*SmartGene, Inc. v. Adv. Biological Labs., SA*, 555 Fed. Appx. 950, 955 (Fed. Cir. 2014) (nonprecedential) (“Whatever the boundaries of the ‘abstract ideas’ category, the claim at issue here involves a mental process excluded from [section 101](#): the mental steps of comparing new and stored information and using rules to identify medical options.”)

the court in *buySAFE Inc. v. Google, Inc.*, 112 USPQ2d 1093 (Fed. Cir. 2014) made clear that in “defining the excluded categories, the Court has ruled that the exclusion applies if a claim involves [an] . . . abstract idea, even if the particular . . . abstract idea at issue is narrow. *Mayo*, 132 S. Ct. at 1303”.

Id. at 9.

We agree with the Examiner’s determination. Under the Guidance, a claim recites a mental process when the claim encompasses acts people can perform using their minds or pen and paper. *See, e.g., CyberSource Corp. v. Retail Decisions, Inc.*, 654 F.3d 1366, 1372–73 (Fed. Cir. 2011) (determining that a claim whose “steps can be performed in the human mind, or by a human using a pen and paper” is directed to an unpatentable mental process). Here, a person can perform at least the following steps of representative claim 23 in his/her mind or using a pen and paper:

[a] maintaining a user profile for each of a plurality of users of an online system, where each user profile stores a set of user profile characteristics for one of the plurality of users of the online system;

[b] receiving . . . a request from an advertiser to present an advertisement to one or more of the plurality of users of the online system;

[c] receiving . . . a targeted user profile characteristic from the advertiser, where a user of the plurality of users of the online system is eligible to be presented with the advertisement if the user profile for the user contains the targeted user profile characteristic;

[d] determining an impression opportunity to serve the advertisement to a viewing user of the plurality of users of the online system;

[e] determining that the user profile for the viewing user cannot be identified because the viewing user does not have a current online session with the online system;

[f] selecting a plurality of comparable users of the plurality of users of the online system, where the comparable users are selected based on the comparable users having browsing histories that overlap a browsing history of the viewing user, and where the comparable users have a current online session with the online system;

[g] determining that the targeted user profile characteristic is contained in the user profile of each of a plurality of the selected comparable users;

[h] associating the targeted user profile characteristic with the viewing user;

[i] determining that the viewing user is eligible to be presented with the advertisement because the targeted user profile characteristic has been associated with the viewing user;
and

[j] sending the advertisement for presentation to the viewing user.

The maintaining, determining, selecting, and associating steps ([a], [d], [e], [f], [g], [h], and [i]) can all be performed by a human, such as a system administrator of an online system, through observing a screen display of the online system that displays user activities and interactions, such as online status, browsing activities, user characteristics, and the like; writing those activities and interactions down systematically; reviewing what he has written down; and making certain associations about the review. The receiving and sending steps ([b], [c], and [j]) can be performed by being handed a piece of paper with a written request and handing back a piece of paper with a response to the request.

Accordingly, but for the recitation of “at the online system” in certain limitations, all of the steps of claim 23 can be performed in the human mind or with the aid of pen and paper. Thus, under the Guidance, claim 23 recites a mental process, a type of abstract idea, because the “steps can be

performed in the human mind, or by a human using a pen and paper,”
CyberSource, 654 F.3d at 1372–73. *See also SmartGene* 555 Fed. Appx. at
955.

Appellant argues “the claimed method applies an unconventional approach that allows the system to infer characteristics of a viewing user who is logged out of the system and hence whose personal identification is unknown (or unavailable) to the system, which the examiner fails to address.” Reply Br. 3. We are not persuaded of error by this argument because “inferring characteristics of a user” is an observation/evaluation that can be performed in the human mind. Thus, this feature of the claim does not remove the claim from the realm of an abstract idea.

For the reasons discussed above, representative claim 23 recites a mental processes, an abstract idea under the Guidance.

USPTO Step 2A, Prong 2

Having determined that claim 23 is directed to a judicial exception, we now address whether there are additional elements that integrate the judicial exception into a practical application under the Guidance. *See* MPEP § 2106.05(a)–(c), (e)–(h). We do not find such additional elements.

The only additional element recited in claim 23 is an “online system.” The online system does not: (1) improve the functioning of a computer or other technology; (2) is not applied with any particular machine (except for generic computer components); (3) does not effect a transformation of a particular article to a different state; and (4) is not applied in any meaningful way beyond generally linking the use of the judicial exception to a particular technological environment, such that the claim as a whole is more than a

drafting effort designed to monopolize the exception. *See* MPEP §§ 2106.05(a)–(c), (e)–(h).

The claims require only generalized capabilities and functionalities of maintaining, receiving, and sending data and making determinations, selections, or associations based on the data. Although certain limitations are applicable to the “online system,” these elements amount to “algorithms and symbolic representations of operations on information[, which] are commonly used by those skilled in the data processing arts to convey the substance of their work effectively to others skilled in the art.” Spec ¶ 61. Moreover, these functions are performed by “a general-purpose computing device.” *Id.* ¶ 63. “[T]he mere recitation of a generic computer cannot transform a patent-ineligible abstract idea into a patent-eligible invention.” *Alice*, 573 U.S. at 223. Thus, these limitations do not constitute additional elements that integrate the judicial exception into a practical application. *See* MPEP § 2106.05(a)–(c), (e)–(h)

Appellant argues (1) “the claims recite a method that infers one or more characteristics of a viewing user who is logged out of the system” and, (2) “the claims recite a specific means that, as in *McRO*, allows a computer to perform a function not previously performable by a computer.” Appeal Br. 16–17. We do not agree.

In *McRO*, the Federal Circuit concluded that the claim, when considered as a whole, was directed to a “technological improvement over the existing, manual 3-D animation techniques” through the “use of limited rules specifically designed to achieve an improved technological result in conventional industry practice.” *McRO, Inc. v. Bandai Namco Games Am. Inc.*, 837 F.3d 1299, 1316 (Fed. Cir. 2016). Specifically, the Federal Circuit

found that the claimed rules allow computers to produce accurate and realistic lip synchronization and facial expressions in animated characters that previously could only be produced by human animators; and the rules are limiting because they define morph weight sets as a function of phoneme sub-sequences. *Id.* at 1313 (citations omitted).

In contrast, here, Appellant has not identified any analogous improvement attributable to the claimed invention. Although the claims provide advertising by inferring characteristics of a user who is logged out of the system, this does not achieve an improved technological result. Improving the delivery of advertising is a solution to a business problem, not an improvement to a technological problem. We see no parallel between the limiting rules described in *McRO* and the results-based rules recited in Appellant’s claims.

Appellant further argues that, like the claims in *DDR Holdings, LLC v. Hotels.com, L.P.*, 773 F.3d 1245, 1259 (Fed. Cir. 2014), Applicant’s claim [23] is ‘necessarily rooted in computer technology in order to overcome a problem specifically arising in the realm of computer networks.’” Appeal Br. 20 (quoting *DDR Holdings*). *Id.* Appellant contends that “online social networks did not exist prior to the internet, and [the invention] would not exist without a computer network.” Appellant contends further that “the problems addressed by the claims are ones that arise uniquely in the context of the Internet (e.g., there is no analogous way to implement the claims using print media).” *Id.*

In *DDR Holdings*, the court held the subject claim patent-eligible because it encompassed “an inventive concept” for resolving a “particular Internet-centric problem.” Specifically, the invention in *DDR Holdings*

allowed a host merchant website to maintain the look and feel of the host website when hyperlinking to outside merchants’ product pages, i.e., “specify how interactions with the Internet are manipulated to yield a desired result.” *See DDR Holdings*, 773 F.3d at 1257–58.

In contrast, Appellant’s method is not actually performed by the online system. Although the steps recite the online system, including using the online system to receive information and using the online system as the basis for information about users (i.e., browsing histories and whether the user is engaged in an online sessions), we do not find a step that is actually performed by the online system. Thus, the steps are performable apart from the technology recited as ancillary elements of the claim.

Furthermore, we find all claims on appeal merely use a generic computing device as a tool, which is used in the way a computer normally functions. As such, we conclude that the claims fail to impart any discernible improvement upon the computer or processor; nor do Appellant’s claims solve “a challenge particular to the Internet” as considered by the court in *DDR*, 773 F.3d at 1256–57. *See Alice*, 573 U.S. at 224 (concluding claims “simply instruct[ing] the practitioner to implement the abstract idea of intermediated settlement on a generic computer” not patent eligible).

For at least the reason noted *supra*, we determine that the claims (1) recite a judicial exception and (2) do not integrate that exception into a practical application. Thus, representative claim 23 is directed to the aforementioned abstract idea.

USPTO Step 2B

Because the claims a judicial exception and do not integrate that

exception into a practical application, we reach the issue of whether the claims add specific limitations beyond the judicial exception that are not “well-understood, routine, conventional” in the field. *See* Guidance. Here, we look to whether the claims contain any “inventive concept” or add anything “significantly more” to transform the abstract concept into a patent-eligible application. *Alice*, 573 U.S. at 216.

We find no element or combination of elements recited in Appellant’s claim 23 that contains any “inventive concept” or adds anything “significantly more” to transform the abstract concept into a patent-eligible application. Appellant has not adequately explained how claim 23 is performed such that it is not a routine and conventional function of a generic computer.

Appellant contends “the claimed method applies an unconventional approach that allows requested advertisement to be targeted to the viewing user of the online system even if the viewing user does not have a session with the online system when the advertisement is requested.” Appeal Br. 18–19 (citing *BASCOM Global Internet Servs., Inc. v. AT&T Mobility LLC*, 827 F.3d 1341, 1348 (Fed. Cir. 2016); and Spec. ¶ 5). Appellant’s Specification explains, however, that this problem exists and has been addressed outside the field of mobile device computing. *See* Spec. 4. Moreover, we agree with the Examiner that

The claimed solution is rooted in the abstract idea, rather than being directed to a technological improvement. The claims amount to nothing significantly more than an abstract idea being performed in an environment of a connected or “online” system (see, e.g., Specification at [0063], ‘a general-purpose computing device’ or “a single processor”), which is broader than merely using “the online system” as a tool to execute the

abstract idea of receiving, analyzing (e.g. determining), and providing/presenting data-of which neither is enough to transform an abstract idea into a patent-eligible invention.

Ans. 15.

Thus, we are not persuaded that “the claimed method applies an unconventional approach.” Appeal Br. 18.

Appellant further contends “the claimed method is directed toward solving the problem of reducing ad inventory” “by targeting advertisements to the anonymous user using the inferred profile information.” Appeal Br. 19. Appellant asserts “this method itself is a non-conventional improvement on traditional advertisement delivery and thereby provides significantly more than simply ‘processing (e.g. advertising) commercial/contractual data’ in an abstract sense.” *Id.*

This argument is unpersuasive. Again, we note Appellant’s Specification discloses implementing the conventional steps of the abstract idea on a “general-purpose computing device” (i.e., convention hardware). Spec. ¶ 63. Accordingly, we find no “unconventional” aspect to the claimed invention.

Therefore, we conclude claim 23, viewed “both individually and as an ordered combination,” does not recite significantly more than the judicial exception to transform the claim into patent-eligible subject matter. *See Alice*, 573 U.S. at 217 (quoting *Mayo*, 566 U.S. at 79) (quotations omitted).

Accordingly, for the reasons discussed, claim 23 is directed to mental processes identified as an abstract idea. Furthermore, the claims do not recite limitations that amount to significantly more than the abstract idea itself. We thus sustain the rejection of independent claim 23 under 35

U.S.C. § 101 and, for the same reasons, the rejection of independent claims 31 and 38, together with the rejection of dependent claims 24–30 and 32–37, which are not argued separately with particularity.

35 U.S.C. § 103⁴

With respect to the obviousness rejection of independent claim 23, Appellant contends that Doughty does not teach or suggest “determining that the user profile for the viewing user cannot be identified because the viewing user does not have a current online session with the online system” and “selecting a plurality of comparable users.” Appeal Br. 20–24; *see also* Reply Br. 5–7.

The Examiner cites, *inter alia*, paragraph 66 of Doughty, which discloses “[s]hould the user in the above example not log into a webpage or application on a brand new device, he may be identified instead by user behavior and location.” Final Act. 13.

Appellant argues that “Doughty does not disclose the concept of a user having ‘a current online session’ because users do not log into or browse content of an advertising network” and “the relevant portions of Doughty merely disclose instances where the user’s identity can be affirmatively identified.” Final Act. 23. Appellant’s arguments, however, do not address the disclosure of paragraph 66 quoted above.

⁴ Appellant argues the obviousness rejection of claims 23–38 over Doughty and Wang and does not argue the obviousness rejection of these claims over Doughty. *See* Appeal Br. 20–24; *see also* Reply Br. 5–7. Because we would reach the same outcome if Appellant’s arguments applied to both rejections, we address Appellant’s arguments with respect to the rejection over Doughty and Wang as if applicable to either rejection.

We are persuaded that, in accordance with the Examiner’s finding, “determining that the user profile for the viewing user cannot be identified because the viewing user does not have a current online session with the online system” reads directly on Doughty’s disclosure of having to identify a user through alternative means (i.e., “he may be identified instead by user behavior and location”) because the user does not log in to a webpage or application when using a brand new device. Final Act. 13; *see also* Doughty ¶ 66. Accordingly, we are unpersuaded of error based on this argument.

With respect “selecting a plurality of comparable users,” Appellant argues that “[n]either Doughty nor Wang disclose the concept of comparable users.” Appeal Br. 24. Appellant argues that “[a]t best, the cited portions of Doughty with respect to this limitation disclose correlating user devices based on IP addresses.” *Id.*

The Examiner provides numerous citations to Doughty that disclose far more than merely “correlating user devices based on IP addresses.” *See* Ans. 24–27 (citing Doughty ¶¶ 37, 39, 45, 55–56, and 69–76). In particular, we note Doughty’s disclosure of an advertising network operating a data facility containing “mobile subscriber characteristics” encompassing far more than “correlating user devices based on IP addresses,” as Appellant argues. Appeal Br. 24; *see also* Doughty ¶ 69.

We are persuaded that “selecting a plurality of comparable users,” broadly but reasonably construed, reads on Doughty’s disclosure of maintaining a database of user characteristics for users. We are persuaded because, for data to be maintained regarding a specific user, the user must first be “selected” for having data maintained. Further, the database is

clearly intended to maintain data on a plurality of users, and the users may be considered “comparable” based on any number of data categories.

In view of the foregoing, we sustain the Examiner’s rejection of claim 23 and of claims 24–38, which Appellant does not argue separately.

DECISION SUMMARY

We affirm the Examiner’s rejections as follows:

Claims Rejected	35 U.S.C. §	Reference(s)/Basis	Affirmed	Reversed
23–38	112, 1 st	Written Description	23–38	
38	112, 2 nd	Indefiniteness	38	
23–38	101	Eligibility	23–38	
23–38	103	Doughty	23–38	
23–38	103	Doughty, Wang	23–38	
Overall Outcome:			23–38	

TIME PERIOD FOR RESPONSE

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