UNITED STATES PATENT AND TRADEMARK OFFICE

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UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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Ex parte SCOTT HANNAN

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Appeal 2017–005884
Application 13/846,442
Technology Center 3600

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Before MURRIEL E. CRAWFORD, ANTON W. FETTING, and
TARA L. HUTCHINGS, *Administrative Patent Judges.*

FETTING, *Administrative Patent Judge.*

DECISION ON APPEAL

STATEMENT OF THE CASE[1]

Scott Hannan (Appellant) seeks review under 35 U.S.C. § 134 of a final
rejection of claims 1–4, 7–19, and 21–27, the only claims pending in the
application on appeal. We have jurisdiction over the appeal pursuant to
35 U.S.C. § 6(b).

The Appellant invented an advertising system. Specification para. 2.

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[1] Our decision will make reference to the Appellant's Appeal Brief ("App.
Br.," filed July 29, 2016) and Reply Brief ("Reply Br.," filed February 21,
2017), and the Examiner's Answer ("Ans.," mailed December 20, 2016),
and Final Action ("Final Act.," mailed October 1, 2015).

An understanding of the invention can be derived from a reading of exemplary claim 1, which is reproduced below (bracketed matter and some paragraphing added).

1. A method comprising:

[1] receiving a location event from a user device,

the location event identifying a geographical location;

[2] determining, by a computer system, attributes for the geographical location identified by the location event

to serve as targeting criteria for advertisement selection;

[3] storing the attributes in a places object for the geographical location;

[4] calculating, by a computer system, a quality score for each places object,

the quality score calculated based on the stored attributes about the geographical location;

and

[5] selecting an advertisement for the user

based on the quality score for the geographical location.

The Examiner relies upon the following prior art:

Beckner   US 2010/0198503 A1   Aug. 5, 2010
Cheng   US 8,396,888 B2   Mar. 12, 2013

Claims 1–4, 7–19, and 21–27 stand rejected under 35 U.S.C. § 101 as directed to a judicial exception without significantly more.

Claims 1–4, 7–19, and 21–27 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Cheng and Beckner.

ISSUES

The issues of eligible subject matter turn primarily on whether the claims recite more than abstract conceptual advice of what a computer is to provide without implementation details.

The issues of obviousness turn primarily on whether the art describes the limitations.

FACTS PERTINENT TO THE ISSUES

The following enumerated Findings of Fact (FF) are believed to be supported by a preponderance of the evidence.

Facts Related to Claim Construction

01. The disclosure contains no lexicographic definition of "location event." At best, paragraph 14 of the Specification provides in a non-limiting fashion that "[l]ocation events may include any user interactions with a location, including, but not limited to, checking in at the location, tagging or otherwise referencing a location in a post on a social networking system, and checking into a location implicitly through constantly sharing location coordinates, for example."

02. The plain meaning of location event is the noun "event" modified by the noun adjective "location." Neither the claims nor the Specification narrow the manner of modification.

03. The disclosure contains no lexicographic definition of "places object."

04. An object in the software context is an instance of the data structure and behavior defined by the object's class. Each object has its own values for the instance variables of its class and can respond to the methods defined by its class.[2]

Facts Related to the Prior Art

Cheng

05. Cheng is directed to location-based searching. Cheng 1:16–17.

06. Cheng describes performing location-based searching. In general, without a user of a mobile device having to enter an explicit search query (e.g., by typing or speaking the query), a mobile computing device may display content that corresponds to a search result. The search result may have been selected by a search engine as responsive to a query for a search area, where the search area was selected based on a geographical location of the mobile computing device. The search area may be selected from among several search areas that correspond to the geographical location. The several areas can be geographically nested within each other and may be regions that all include the geographical location. The search results may be generated automatically by a user powering on their device, by the user launching a browser on their device, by a user selecting a "search" button without defining a query, or in other similar manners. *Id.* at 1:41–57.

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[2] Free Online Dictionary of Computing, http://foldoc.org/object.

07. Cheng describes a server system that receives a geographical location and selects one of several "search areas" that correspond to the geographical location. For example, search areas that correspond to the geographical location may be those search areas that include the geographical location, or that are geographically near to the geographical location. As a conceptual illustration, the geographical location may correspond to seven search areas that are geographically nested within each other like Russian nesting dolls. An exemplary set of nested search areas includes continent, country, state, county, city, neighborhood, shopping center, and store designators. Accordingly, every search area in a nested collection except for a "highest" level search area may spatially include a higher level search area, and every search area in the nested collection but a "lowest" level search area may spatially include a lower level search area. *Id.* at 3:64–4:12.

08. Cheng describes retrieving markers labeled as pizza places in response to a query. *Id.* at 25:18–28.

09. Cheng describes programming its software with an object-oriented programming language. *Id.* at 29:7–11.

Beckner

10. Beckner is directed to location-based services, and more particularly, to assessing the quality of location content available from location-based systems. Beckner para. 2.

11. Beckner describes a location content management system that receives location content in the form of a profile from a content

source. The location content management system includes a content quality system that evaluates the quality of location content. The evaluation includes evaluating who provided the content, the accuracy of the location data associated with the content, the integrity or completeness of the content, and when the content and location data was provided to the location content management system. As a result of the evaluation, the content quality system generates one or more quality scores. The quality score provides an indication of the reliability of the location content. Preferably, the method for assessing the quality of location content is repeated when a change is made to the content. *Id.* at para. 8.

12. Beckner describes providing a content quality score. The location content management system receives content from the content source. The content source adds a new profile or modifies an existing profile via the user interface and/or Web service provided by the content upload server. The content quality system analyzes the content and the source of the content. In some cases, the content quality system may use a matrix to calculate the score. In mathematics, a matrix is a rectangular table of elements, which may be added and multiplied. In Beckner, a matrix includes any table or other organization of variables that may be used to calculate a score. The matrix of variables allows for an on-going, automatic weighted assessment. Preferably, the matrix variables can be modified at any time without impacting the location based system. *Id.* at paras. 45–48.

13.   Beckner describes a where factor, which refers to the

geospatial accuracy of a location. The location referencing system

evaluates location accuracy. The location content management

system may provide a where factor value as a number between 0

and 100 that indicates the level of trust for the accuracy of the

location relative to ground-truth, which may be determined by the

method used to locate the location (e.g., by one or more of

address, latitude/longitude, and administrative area). *Id.* at para.

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ANALYSIS

Claims 1–4, 7–19, and 21–27 rejected under 35 U.S.C. § 101 as directed to
a judicial exception without significantly more

STEP 1[3]

Claim 1, as a method claim, recites one of the enumerated categories of

eligible subject matter in 35 U.S.C. § 101. The issue before us is whether it

is directed to a judicial exception without significantly more.

STEP 2

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, we then ask, "[w]hat

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[3] For continuity of analysis, we adopt the steps nomenclature from 2019
Revised Patent Subject Matter Eligibility Guidance, 84 FR 50 (Jan. 7, 2019).

> 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., Pty. Ltd. v CLS Bank Intl, 573 U.S. 208, 217–18 (2014)

(citations omitted) (*citing Mayo Collaborative Services v. Prometheus*

Laboratories, Inc., 566 U.S. 66 (2012)). To perform this test, we must first

determine what the claims are directed to. This begins by determining

whether the claims recite one of the judicial exceptions (a law of nature, a

natural phenomenon, or an abstract idea). Then, if claims recite a judicial

exception, determining whether the claims at issue are directed to the recited

judicial exception, or whether the recited judicial exception is integrated into

a practical application of that exception. If the claims are directed to a

judicial exception, then finally determining whether the claims provide an

inventive concept because the additional elements recited in the claims

provide significantly more than the recited judicial exception.

STEP 2A Prong 1

Method claim 1 recites receiving event data, determining and storing

attribute data, calculating quality score data, and selecting advertising data

based on this other data. Thus, claim 1 recites receiving, analyzing,

modifying, and storing data. None of the limitations recite technological

implementation details for any of these steps, but instead recite only

functional results to be achieved by any and all possible means.

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From this we see that claim 1 does not recite the judicial exceptions of either natural phenomena or laws of nature. The next issue is whether it recites the judicial exception of an abstract idea. To answer this, we next determine whether it recites one of the concepts the Courts have held to be lacking practical application, *viz.* mathematical concepts,[4] certain methods of organizing human interactions,[5] including fundamental economic practices and business activities, or mental processes.[6]

The Examiner determines the claims to be directed to

> receiving information about physical places to develop scores
> for targeting advertisements to users. Claim 19 adds steps for
> replacing information (quality score) for [a] nearby
> geographical location. Thus, the independent claims are
> directed to the abstract idea of gathering information about
> physical places to develop quality scores for targeting
> advertisements to users of mobile devices sharing geographical
> location events with service providers, that could be performed
> by certain methods of organizing human activity.

Final Act. 3.

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[4] *See e.g., Gottschalk v. Benson*, 409 U.S. 63, 71–72 (1972); *Bilski v. Kappos*, 561 U.S. 593, 611 (2010); *Mackay Radio & Telegraph Co. v. Radio Corp. of Am.*, 306 U.S. 86, 94 (1939); *SAP America, Inc. v. InvestPic, LLC*, 898 F.3d 1161, 1163 (Fed. Cir. 2018)

[5] *See e.g., Bilski*, 561 U.S. at 628; *Alice*, 573 U.S. at 219-20; *Ultramercial, Inc. v. Hulu, LLC*, 772 F.3d 709, 715 (Fed Cir. 2014); *Smart Systems Innovations, LLC v. Chicago Transit Authority*, 873 F.3d 1364, 1383 (Fed. Cir. 2017); *In re Marco Guldenaar Holding B.V.*, 2018 WL 6816331 (Fed. Cir. 2018)

[6] *See e.g., Benson*, 409 U.S. at 67; *CyberSource Corp. v. Retail Decisions, Inc.*, 654 F.3d 1366, 1371–1372 (Fed. Cir. 2011); *Intellectual Ventures I LLC v. Symantec Corp.*, 838 F.3d 1307, 1318 (Fed. Cir. 2016)

The preamble to claim 1 does not recite what it is to achieve, but the steps in claim 1 result in selecting an advertisement for the user based on a quality score for a geographical location absent any technological mechanism, other than a conventional computer, for doing so.

As to the specific limitations, limitations 1–3 recite insignificant receiving, determining, and storing of location data, which advise one to apply generic functions to get to these results. Limitations 4–5 recite calculating a score and selecting an advertisement based on that score, which is simply using a mathematical calculation as a selection criterion. To advocate using a mathematical calculation as a selection criterion is conceptual advice for results to be obtained, and not technological operations.

The Specification at paragraph 2 provides that the invention relates to an advertising system. Thus, all this intrinsic evidence shows that claim 1 is directed to a way of selecting an advertisement, i.e. advertising. This is consistent with the Examiner's determination.

The concept of advertising is a fundamental business practice long prevalent in our system of commerce. The use of advertising is also a building block of ingenuity in sales and marketing. Thus, advertising is an example of a conceptual idea subject to the Supreme Court's "concern that patent law not inhibit further discovery by improperly tying up the future use of these building blocks of human ingenuity." *See Alice*, 573 U.S. at 216 (citations omitted). Claim 1 recites the idea of performing various conceptual steps generically resulting in the advertising. As we determined earlier, none of these steps recite specific technological implementation details, but instead get to this result by advising one to select an ad based on

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some score and location. Thus claim 1 is directed to advertising, which is a fundamental business practice.

This in turn is an example of advertising as a certain method of organizing human interactions because advertising is a large part of using marketing to get customers. The advertising is done by selecting an ad based on some score for the geographical location. The steps recited in claim 1 are part of this ad selection idea.

Our reviewing court has found claims to be directed to abstract ideas when they recited similar subject matter. *Ultramercial, Inc. v. Hulu, LLC*, 772 F.3d 709, 715 (Fed. Cir. 2014) (using advertising).

Alternately, this is an example of concepts performed in the human mind as mental processes because the steps of receiving, analyzing, modifying, and storing data mimic human thought processes of observation, evaluation, judgment, and opinion, perhaps with paper and pencil, where the data interpretation is perceptible only in the human mind. *See In re TLI Commc'ns LLC Patent Litig.*, 823 F.3d 607, 611 (Fed. Cir. 2016); *FairWarning IP, LLC v. Iatric Sys., Inc.*, 839 F.3d 1089, 1093–94 (Fed. Cir. 2016). Claim 1, unlike the claims found non-abstract in prior cases, uses generic computer technology to perform data reception, analysis, modification, and storage and does not recite an improvement to a particular computer technology. *See, e.g., McRO, Inc. v. Bandai Namco Games Am. Inc.*, 837 F.3d 1299, 1314–15 (Fed. Cir. 2016) (finding claims not abstract because they "focused on a specific asserted improvement in computer animation"). As such, claim 1 is directed to the abstract idea of receiving, analyzing, modifying, and storing data, and not a technological implementation or application of that idea.

Alternately, this is an example of a mathematical concept because the steps of calculating a score perform a mathematical algorithm. The remaining steps are mere data gathering and incidental post processing steps.

From this we conclude that at least to this degree, claim is directed to the abstract idea of advertising by advising one to select an ad based on some score for the location.

STEP 2A Prong 2

The next issue is whether the claim not only recites, but is more precisely directed to this concept itself or whether it is instead directed to some technological implementation or application of, or improvement to, this concept i.e. integrated into a practical application.[7]

> At the same time, we tread carefully in construing this
> exclusionary principle lest it swallow all of patent law. At
> some level, "all inventions ... embody, use, reflect, rest upon, or
> apply laws of nature, natural phenomena, or abstract ideas."
> Thus, an invention is not rendered ineligible for patent simply
> because it involves an abstract concept. "[A]pplication[s]" of
> such concepts " 'to a new and useful end,' " we have said,
> remain eligible for patent protection. Accordingly, in applying
> the § 101 exception, we must distinguish between patents that
> claim the " 'buildin[g] block[s]' " of human ingenuity and those
> that integrate the building blocks into something more.

Alice, 573 U.S. at 217 (citations omitted).

The introduction of a computer into the claims does not alter the analysis at *Mayo* step two.

> the mere recitation of a generic computer cannot transform a
> patent-ineligible abstract idea into a patent-eligible invention.

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[7] *See, e.g., Alice*, 573 U.S. at 223, discussing *Diamond v. Diehr*, 450 U.S. 175 (1981).

> 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 "implement[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 feature[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 (citations omitted).

"[T]he relevant question is whether the claims here do more than simply instruct the practitioner to implement the abstract idea [] on a generic computer." *Alice*, 573 U.S. at 225. They do not.

Taking the claim elements separately, the function performed by the computer at each step of the process is purely functional, devoid of implementation details. Steps 1 and 2 are pure data gathering steps. Limitations describing the nature of the data do not alter this. Step 3 is insignificant activity, such as storing, transmitting, or displaying the results. Steps 4 and 5 recite generic computer processing of calculating data and making a selection based on that data expressed in functional terms to be performed by any and all possible means and so present no more than abstract conceptual advice. All purported inventive aspects reside in how the data is interpreted and the results desired, and not in how the process physically enforces such a data interpretation or in how the processing technologically achieves those results.

Viewed as a whole, Appellant's method claim 1 simply recites the concept of advertising as performed by a generic computer. To be sure, the claims recite doing so by advising one to select an ad based on some score for a location. But this is no more than abstract conceptual advice on the parameters for such advertising and the generic computer processes necessary to process those parameters, and do not recite any particular implementation.

The method claims do not, for example, purport to improve the functioning of the computer itself. Nor do they effect an improvement in any other technology or technical field. The 28 pages of specification spell out different generic equipment[8] and parameters that might be applied using this concept and the particular steps such conventional processing would entail based on the concept of advertising under different scenarios. They do not describe any particular improvement in the manner a computer functions. Instead, claim 1 amounts to nothing significantly more than an instruction to apply the abstract idea of advertising by advising one to select an ad based on some score and location 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 225–26. None of the limitations reflect an improvement in the functioning of a computer, or an improvement to other technology or technical field, applies or uses a judicial exception to effect a particular treatment or prophylaxis for a disease or medical condition, implements a judicial exception with, or uses a judicial

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[8] The Specification describes a conventional computer system. Spec. para. 28.

exception in conjunction with, a particular machine or manufacture that is integral to the claim, effects a transformation or reduction of a particular article to a different state or thing, or applies or uses the judicial exception in some other 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.

We conclude that claim 1 is directed to advising one to select an ad based on some score and location to achieve the functional result of advertising as distinguished from a technological improvement for achieving or applying that result. The claim does not integrate the judicial exception into a practical application.

STEP 2B

The next issue is whether the claim provides an inventive concept because the additional elements recited in the claim provides significantly more than the recited judicial exception. Taking the claim elements separately, the function performed by the computer at each step of the process is purely conventional. Using a computer for receiving, analyzing, modifying, and storing data amounts to electronic data query and retrieval— one of the most basic functions of a computer. All of these computer functions are generic, routine, conventional computer activities that are performed only for their conventional uses. *See Elec. Power Grp. v. Alstom S.A.*, 830 F.3d 1350, 1353 (Fed. Cir. 2016). Also s*ee In re Katz Interactive Call Processing Patent Litigation*, 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"). None of these

activities are used in some unconventional manner nor do any produce some unexpected result. Appellant does not contend they invented any of these activities. 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 America, Inc. v. InvestPic LLC*, 898 F.3d 1161, 1168 (Fed. Cir. 2018).

Considered as an ordered combination, the computer components of Appellant's method claim add nothing that is not already present when the steps are considered separately. The sequence of data reception-analysis-modification-storage 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) (sequence of data retrieval, analysis, modification, generation, display, and transmission), *Two-Way Media Ltd. v. Comcast Cable Communications, LLC*, 874 F.3d 1329, 1339 (Fed. Cir. 2017) (sequence of processing, routing, controlling, and monitoring). The ordering of the steps is therefore ordinary and conventional.

We conclude that the claim 1 does not provide an inventive concept because the additional elements recited in the claim do not provide significantly more than the recited judicial exception.

REMAINING CLAIMS

The other independent method claims are substantially similar at least as regards this analysis. The remaining method claims merely describe process parameters. We conclude that the method claims at issue are directed to a patent-ineligible concept itself, and not to the practical application of that concept.

LEGAL CONCLUSION

From these determinations we further determine that the claims do not recite an improvement to the functioning of the computer itself or to any other technology or technical field, a particular machine, a particular transformation, or other meaningful limitations. From this we conclude the claims are directed to the judicial exception of the abstract idea of advertising, without significantly more.

APPELLANT'S ARGUMENTS

As to Appellant's Appeal Brief arguments, we adopt the Examiner's determinations and analysis from Final Action 2–5 and Answer 2–5 and reach similar legal conclusions. We now turn to the Reply Brief.

We are not persuaded by Appellant's argument of "the absence of a showing of how or why the claims correspond to a concept that the courts have identified as abstract beyond a mere conclusion that the examiner believes this to be the case." Reply Br. 2. As we determine supra, the intrinsic evidence shows that claim 1 is directed to a way of selecting an advertisement, i.e. advertising. This is consistent with the Examiner's determination. Tailoring ads to customers based on location has been found abstract.

> [T]ailoring content based on the viewer's location or address
> would satisfy the "as a function of the user's personal
> characteristics" limitation. This sort of information
> tailoring is "a fundamental . . . practice long prevalent in
> our system . . . ." *Id.* There is no dispute that newspaper inserts
> had often been tailored based on information known about
> the customer—for example, a newspaper might advertise
> based on the customer's location. Providing this minimal
> tailoring—e.g., providing different newspaper inserts based
> upon the location of the individual—is an abstract idea.

Intellectual Ventures I LLC v. Capital One Bank (USA), 792 F.3d 1363, 1369 (Fed. Cir. 2015).

We are not persuaded by Appellant's argument the Examiner "does not address . . . the fact that the examiner has bundled all of the steps of the claims into the abstract idea although not supported by the Interim Guidance nor any Supreme Court of Federal Circuit case." Reply Br. 2. As we determine supra, the intrinsic evidence shows that claim 1 is directed to a way of selecting an advertisement, i.e. advertising. This is consistent with the Examiner's determination. Tailoring ads to customers based on location has been found by the Federal Circuit to be abstract. *See, e.g., Intellectual Ventures I*, 792 F.3d at 1369.

We are not persuaded by Appellant's argument the Examiner does not address "Appellant's arguments distinguishing *SmartGene*, *Cyberfone*, and *Digitech*, among other issues." Reply Br. 2. As to *SmartGene, Inc. v. Advanced Biological Labs., SA*, 555 Fed. Appx. 950 (Fed.Cir.2014), Appellant first argues that it is non-precedential. App. Br. 7. Even so, this case demonstrates examples and analysis of claims the Federal Circuit held abstract. Appellant next argues that the instant claims could not be completed by the human mind, as they are explicitly recited as being

performed "by a computer system." *Id.* at 7–8. As we determined supra, simply reciting the use of a computer does not remove a claim from the realm of the abstract. Further, the Federal Circuit determined that

> we do not rely on the pen and paper test to reach our holding of patent eligibility in this case. At the same time, we note that, in viewing the facts in FairWarning's favor, the inability for the human mind to perform each claim step does not alone confer patentability. As we have explained, "the fact that the required calculations could be performed more efficiently via a computer does not materially alter the patent eligibility of the claimed subject matter."

FairWarning IP, LLC v. Iatric Sys., Inc., 839 F.3d 1089, 1098 (Fed. Cir. 2016) (citations omitted).

As to *Cyberfone Systems, LLC v. CNN Interactive Group, Inc.*, 558 Fed. Appx. 988 (Fed. Cir. 2014), Appellant argues that "it is unclear how the *Cyberfone* decision applies to this case." App. Br. 8. The Examiner applied *Cyberfone* for reasons similar to our citation to *Elec. Power*, supra.

As to *Digitech Image Technologies, LLC v. Electronics for Imaging, Inc.*, 758 F.3d 1344 (Fed. Cir. 2014), Appellant argues that "[t]he method of *Digitech* entails combining two sets of data that were obtained separately to form an overall device profile. This has little if anything to do with the limitations of the present claims identified by the Examiner as being abstract. Thus Digitech is not applicable to the claims at hand." App. Br. 8. The Examiner applied *Digitech* for reasons similar to our citation to *Elec. Power*, supra.

Claims 1–4, 7–19, and 21–27 rejected under 35 U.S.C. § 103(a) as unpatentable over Cheng and Beckner

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We are not persuaded by Appellant's argument that "Cheng and Beckner do not disclose or suggest 'determining, by a computer system, attributes for the geographical location identified by the location event to serve as targeting criteria for advertisement selection,' as recited in claim 1. This argument applies to claims 1 and 19." App. Br. 13 (emphasis omitted). The Examiner determines that Cheng describes submitting a search among whose search criteria is a particular location. This corresponds to the recited location event. The coordinates or other location identifying data correspond to the recited location attributes. Final Act. 6–7.

Appellant contends

> Cheng at 25:20-29 pertains to a mapping service that can return location-specific results. In the example discussed, a location is combined with a user query term ("pizza places") are a query to the mapping system, resulting in a street map with nearby pizza places. However, the claim recites "determining... **attributes for the geographical location** identified by the location event to **serve as targeting criteria** for advertisement selection." Cheng does not disclose such attribute determination. Further, the only criteria disclosed here are the location itself and a user- input term - there's no determined attribute used as targeting criteria. Further, this limitation is explicit that the determination of attributes is performed "by a computer system," not by the user.

App. Br. 14. Appellant appears not to realize that data identifying a location are location attributes. Furthermore, for Cheng to return pizza locations, the attribute of being a pizza place is necessarily stored in association with a particular location. As to the computer system determining the location, that is what Cheng is directed to. Whether the search is augmented by user input does not negate the computer analysis Cheng describes.

We are not persuaded by Appellant's argument that "Cheng and Beckner do not disclose or suggest 'storing the attributes in a places object for the geographical location,' as recited in claim 1. This argument applies to claims 1, 19, and 23." App. Br. 14 (emphasis omitted). The Examiner determines that Cheng describes storing location identifying information in a database. This corresponds to the recited places object. Ans. 6. An object is just an instance of a data structure. Its behavior is defined by the software. At the programming level, this may be abstracted as a class, but this abstraction is removed after compilation and assembly into the binary executable file. In any event, Cheng's description of using an object oriented programming language makes using such programmed classes for storing location attributes in location (places) objects at least predictable and suggested.

We are not persuaded by Appellant's argument that "Cheng and Beckner do not disclose or suggest 'calculating, by a computer system, a quality score for each places object, the quality score calculated based on the stored attributes about the geographical location,' as recited in claim 1. This argument applies to claims 1, 19, and 23." App. Br. 15 (emphasis omitted). In particular, Appellant contends Cheng's score is not for a places object. *Id.* The Examiner determines that Beckner describes computing quality scores for varying levels of location precision in a location-based search service. This corresponds to the recited the quality score calculated based on the stored attributes about the geographical location. Ans. 7–8.

We are not persuaded by Appellant's argument that "Cheng and Beckner do not disclose or suggest 'selecting an advertisement for the user based on the quality score for the geographical location,' as recited in claim 1. This

argument applies to claims 1, 19, and 23." App. Br. 16 (emphasis omitted).
In particular, Appellant contends neither reference selects an ad. *Id.* at 17.
The Examiner determines that Cheng describes retrieving pizza restaurant
visual indicators. This corresponds to the recited the ad selections. Final
Act. 7.

With respect to claims 13, 19, 21, 22, and 24,[9] we are persuaded by
Appellant's argument that the art does not describe the recited use of
thresholds. App. Br. 19. The Examiner makes no determinations as to this
limitation.

We are not persuaded by Appellant's argument that "Cheng and Beckner
do not disclose or suggest 'extracting information about the geographical
locations from the location events,' as recited in claims 4 and 23." App. Br.
20 (emphasis omitted). Again, Appellant does not appear to appreciate that
location identifying information are attributes. As we determine supra, such
data is part of Cheng's search that corresponds to the location event.

We are persuaded by Appellant's argument that "Cheng and Beckner do
not disclose or suggest 'wherein calculating the quality score for the places
object comprises: defining a scoring model that includes selected of the
attributes as weights in the scoring model; and scoring the places object
using the scoring model,' as recited in claim 8. This argument applies to
claims 8, 22, and 26." App. Br. 20–22 (emphasis omitted). The Examiner

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[9] Appellant refers to claim 16 rather than 13, but it is claim 13, and not claim
16, that has this limitation. Claims 21 and 22 are not explicitly referred to,
but they depend from claim 19.

makes no determinations as to this limitation, but instead cites portions of the art referring to alternate attributes. Final Act. 10–11.

With respect to claims 9–13, and 27,[10] we are persuaded by Appellant's arguments as to those claims. App. Br. 22–24.

CONCLUSIONS OF LAW

The rejection of claims 1–4, 7–19, and 21–27 under 35 U.S.C. § 101 as directed to a judicial exception without significantly more is proper.

The rejection of claims 1–4, 7, 14–18, 23, and 25 under 35 U.S.C. § 103(a) as unpatentable over Cheng and Beckner is proper.

The rejection of claims 8–13, 19, 21, 22, 24, 26, and 27 under 35 U.S.C. § 103(a) as unpatentable over Cheng and Beckner is improper.

DECISION

The rejection of claims 1–4, 7–19, and 21–27 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) (2011).

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[10] Appellant does not refer to claim 10 in the arguments (*see* App. Br. 22–23), but claim 10 depends from claim 9.

AFFIRMED