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MINCARELLI, JAN P

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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte MICHAEL D. SMITH and MILLER T. ABEL

Appeal 2017-003978¹
Application 10/789,805
Technology Center 3600

Before MURRIEL E. CRAWFORD, BIBHU R. MOHANTY, and
TARA L. HUTCHINGS, *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, 2, 5, 6, 9, and 31–43.¹ We have jurisdiction under 35 U.S.C. § 6(b).

SUMMARY OF DECISION

We AFFIRM.

THE INVENTION

Appellants claim a method and system for a service consumer to control applications that behave incorrectly when requesting service. (Title).

Claim 1 is representative of the subject matter on appeal.

¹ The Appellants identify the Real Party in Interest is Microsoft Corp. of Redmond Washington.

Appeal 2017-003978
Application 10/789,805

1. A method in a consumer system with a processor and a memory for determining whether an application is misbehaving, the method comprising:

- when installing an application,
- establishing a limit on services of a service provider that the application is authorized to use based on published requirements of the application, the service provider being a computer system that is remote to the consumer system;
- determining by the processor whether the application is authorized to request services of the service provider by asking the service provider if the application is authorized to use the service provider,
- wherein the service provider determines that the application is not authorized based on notifications received from the other consumer systems indicating that the application is misbehaving;
- when it is determined that the application is authorized to request services of the service provider, installing the application; and
- when it is determined that the application is not authorized to request services of the service provider, not installing the application; and
- under control of a runtime environment after the application has been installed,
- providing the application with access to an indication of the established limit so that when the application can track usage of the service to not exceed the established limit;
- when the application requests a service of the service provider,
- determining by the processor whether the request would exceed the established limit that is based on published requirements of the application;
- when it is determined that the request would not exceed the established limit, requesting the service provider to provide the service; and
- when it is determined that the request would exceed the established limit,
- notifying the service provider that the application is misbehaving; and

Appeal 2017-003978
Application 10/789,805

prohibiting execution of the application on the consumer systems.

THE REJECTIONS

Claims 1, 2, 5, 6, 9 and 31–43 are rejected under 35 U.S.C. § 112(a) or 35 U.S.C. § 112 (pre-AIA), first paragraph, as failing to comply with the written description requirement.²

Claims 1, 2, 5, 6, 9 and 31–43 are rejected under 35 U.S.C. § 101 as directed to a judicial exception without significantly more.

Claims 1, 2, 5, and 6 are rejected under pre-AIA 35 U.S.C. § 103(a) as being unpatentable over McCorkendale (US 2004/0153644 A1; pub. Aug. 5, 2004) in view of White (US 2004/0132438 A1; pub. July 8, 2004) and Berger (US 2004/0123117 A1; pub. June 24, 2004).

Claim 9 is rejected under pre-AIA 35 U.S.C. § 103(a) as being unpatentable over McCorkendale in view of White and Berger and further in view of Choate (US 2001/0054026 A1; pub. Dec. 20, 2001).

Claims 31–36 and 38–43 are rejected under pre-AIA 35 U.S.C. § 103(a) as being unpatentable over McCorkendale in view of Berger.

Claim 37 is rejected under pre-AIA 35 U.S.C. § 103(a) as being unpatentable over McCorkendale in view of Berger and further in view of White.

ANALYSIS

35 U.S.C. §112, FIRST PARAGRAPH REJECTION

The Examiner finds that the Specification fails to disclose a sufficient number of species to demonstrate actual possession of the very broad genus.

² The rejection of claim 37 under 35 U.S.C. §112, second paragraph is not appealed. (App. Br. 1).

Appeal 2017-003978
Application 10/789,805

(Non-Final Act. 6). Specifically, the Examiner finds the claims recite a very broad genus of determining any and all misbehavior for any and all computer applications but fails to disclose a sufficient number of species in the specification to demonstrate actual possession of the very broad genus. (Non-Final Act. 6).

The written description requirement is met if “the disclosure of the application relied upon reasonably conveys to those skilled in the art that the inventor had possession of the claimed subject matter as of the filing date.” *Ariad Pharms., Inc. v. Eli Lilly & Co.*, 598 F.3d 1336, 1351 (Fed. Cir. 2010) (*en banc*). There is no requirement either that a specification describe claimed subject matter *in haec verba*, *Ariad Pharms.* at 1352, or that the specification contain examples explicitly covering the full scope of the claim language, *Falko-Gunter Falkner v. Inglis*, 448 F.3d 1357, 1366 (Fed. Cir. 2006). The written description requirement is met if “the disclosure of the application relied upon reasonably conveys to those skilled in the art that the inventor had possession of the claimed subject matter as of the filing date.” *Ariad Pharms., Inc. v. Eli Lilly & Co.*, 598 F.3d 1336, 1351 (Fed. Cir. 2010) (*en banc*).

Therefore, there is no requirement for the Appellants to provide examples. In any case, we agree with Appellants that examples are provided in paragraph 30 and 50 of the Specification. In addition, as recited in claim 1, the only misbehaviors that are covered by the claim are those that occur because the application request exceeds an established limit. It is clear that these established limits relate to requesting services too frequently, taking too long to perform a task, etc. (Spec. ¶50). As such, claim 1 does not recite a very broad genus of determining any and all misbehavior for any and all computer applications.

The first paragraph of § 112 does not require a description of the complete structure of every species within a genus. *See Utter v. Hiraga*, 845 F.2d 993, 998 (Fed. Cir. 1988) (“A specification may, within the meaning of 35 U.S.C. § 112, ¶ 1, contain a written description of a broadly claimed invention without describing all species that claim encompasses.”). Rather, the written description requirement is satisfied when the specification “set[s] forth enough detail to allow a person of ordinary skill in the art to understand what is claimed and to recognize that the inventor invented what is claimed.” *University of Rochester v. G.D. Searle & Co., Inc.*, 358 F.3d 916, 928 (Fed. Cir. 2004).

We agree with the Appellants that the Specification provides such disclosure and therefore we will not sustain this rejection.

35 U.S.C. § 101 REJECTION

We will sustain the rejection of claims 1–16, 18–19, and 22 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

Appeal 2017-003978
Application 10/789,805

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 Int’l, 1573 U.S. 208 (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 [S]pecification, 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.*, 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 FR 50, pp 50–57 (Jan. 7, 2019) (“Guidance”).

The Examiner determines that the claims 1, 2, 5, 6 and 9 are directed to a method and system that determines if an application is authorized to request services based on whether that request is above or below a threshold limit (Non-Final Act. 10). The Examiner determines that claims 38–43 are directed to a method and system that determines if an application is misbehaving based on notifications from others (Non-Final Act. 10). The

Appeal 2017-003978
Application 10/789,805

Examiner finds that the broadest reasonable interpretation of claims 1, 31 and 38 encompasses embodiments where the consumer system or service consumers are humans or are humans using a computer as a means via which to perform the key method steps. (Non-Final Act. 10). The Examiner also finds that the claims 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. (Ans. 11). The Examiner further finds that receiving, processing and storing data, automating mental tasks, and receiving or transmitting data are all steps well-understood, routine and conventional when claimed in a generic manner. (Ans. 14).

The Specification discloses that a difficulty with the use of computing devices is that an application that is downloaded and installed on the computing device may not behave correctly. If the application is a location service provider, for example, the application may contain a virus which may request location information every 10 seconds leading to charging the customer over five thousand dollars. (Spec. ¶ 7). In order to avoid charging the customer large fees, the invention is directed to automatically detecting whether an application is not behaving correctly. The Specification also teaches that the invention is directed to a service provider indicating whether certain applications are not trustworthy based on a history of their behavior with other consumers so that the consumer can make a more informed decision about installing the application. (*Id.*). The business objective of making sure that misbehaving applications, which lead to excessive charges for the customer, are not installed or run is achieved by establishing a limit on services of the service provider that the application is authorized to use. In furtherance of this goal, all requests by an application for services are

routed through a runtime environment which checks to see if the application would result in exceeding its limit. (*Id.* ¶ 9). If the application is attempting to exceed its limit, the runtime environment may automatically uninstall the application. If many service consumers report that the application is not behaving correctly, the service provider can refuse to provide services and can notify other service consumers so that they can make an informed decision on whether to install the application. (*Id.*).

To accomplish the above goals, a run time component, as depicted in Figure 13, retrieves application data from the application store. If the request of service exceeds the application's authorization limit for the service provider, a report is sent to the service provider and the run time component updates the application data in the application store to indicate the increased usage of the service. (*Id.* ¶ 47). The run time environment reports these misbehaviors to various service providers so that the service providers can aggregate reports from multiple service consumers to provide an accurate assessment of whether the application is misbehaving. (*Id.* ¶ 50). In essence, the Examiner is correct that the invention is directed to receiving/transmitting and processing data.

Claim 1, for example, recites "establishing a limit of services of a service provider," "determining . . . if the application is authorized," "installing the application," "determining . . . whether the request would exceed the established limit." These steps are data processing steps. Claim 1 also recites "requesting the service provider to provide the service" and "notifying the service provider that the application is misbehaving." These steps are data transmission and data reception steps.

We thus agree with the Examiner's determination that the claims are directed to receiving/transmitting and processing data. We also agree with

Appeal 2017-003978
Application 10/789,805

the Examiner that the steps of the claim could be performed in the human mind and thus amount to the automation of mental processes. As such, we determine that the steps of claim 1 constitute analyzing information by steps people go through in their minds and are essentially mental processes within the abstract-idea category. *See Elec. Power Grp., LLC v. Alstom S.A.*, 830 F.3d 1350, 1354 (Fed. Cir. 2016). Thus, we find that claim 1 recites a mental process which is a judicial exception. *Guidance 52.*

Turning to the second prong of the “directed to test”, claim 1 merely requires a “processor and a memory,” and a “computer system.” The recitation of the words “processor” and “computer system” does not integrate the judicial exception into a practical application. *Guidance 54.* In this regard, the recitation does not affect an improvement in the functioning of the processor, the memory or the computer system or other technology. The Specification discloses that computer systems of the service consumer, service provider and service intermediary may include personal computers, server computers, hand-held or laptop devices, multiprocessor systems etc. and thus is evidence that the invention of claim 1 does not include a particular machine. (Spec. 12). In addition, claim 1 does not recite a transformation or reduction of a particular article to a different state or thing. We conclude that claim 1 does not integrate the judicial exception into a practical application. Thus, claim 1 is directed to an “abstract idea.”

Turning to the second step of the *Alice* analysis, because we find that the claims are directed to an abstract idea, 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*

Appeal 2017-003978
Application 10/789,805

Alice, 573 U.S. 208 (2014) (alteration in original) (quoting *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 566 U.S. 66, 72–73 (2012)).

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

[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. 208 (2014) (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.” They do not.

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 processing, query and

Appeal 2017-003978
Application 10/789,805

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 America 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.

As we found above, claim 1 does not, for example, purport to improve the functioning of the computer itself or affect an improvement in any other technology or technical field. The Specification spells out different generic equipment that performs the particular steps of claim 1.

Appellants argue that the claims recite an improvement to computer functionality. (App. Br. 18). Specifically, Appellants argue that the claimed technology determines whether an application is misbehaving and, if so, may refuse to install the application, prohibit execution of an application or refuse to provide the requested service and that safeguarding against problems caused by misbehaving applications is an improvement in computer functionality. However, claim 1 recites that the misbehaving that is determined is when the application has exceeded an established limit. Appellants' Specification discloses that the established limit may be exceeded when the application is a location service provider that, for example, may request location information every 10 seconds, leading to charging the customer over five thousand dollars. (Spec. ¶ 7). In order to avoid charging the customer large fees, the invention is directed to automatically detecting whether an application is not behaving correctly. As such, we agree with the Examiner that the invention merely uses generic computer processor to perform the steps of the claim of determining whether the application may exceed a predetermined limit. No improvement to the processor used is recited. Appellants have not directed our attention to a disclosure in the Specification of an improvement to the processor of claim 1. Thus, we find that the "improvement" to which Appellants refer is related to how to determine whether to an application will exceed a predetermined limit as opposed to an improvement to a computer or other technological or technical field.

We are not persuaded of error on the part of the Examiner by Appellants' argument that claim 1 does not recite a mental task. The decision whether to install and run an application on a computing device may be done in the human mind. As such, we agree with the Examiner that claim 1 recites a mental process i.e. comparing obtained data new and stored information and using rules to identify options. (Ans. 17). We note the steps of the claims involve evaluation and judgement on whether an application runs an application based on whether it exceeds an established limit such as the storage space on a computing device and has been done in the past by the human mind. For example, a person decides in their mind whether to install an application on their computing device based on whether the application will exceed an established limit on space and processing time. The present invention, merely automates this mental process.

We are not persuaded of error on the part of the Examiner by Appellants' argument that the Examiner has failed to identify additional elements of the dependent claims and explain why they are not significantly more than the asserted abstract idea. (App. Br. 21). The Examiner clearly identifies the additional elements as the structural elements (e.g., a processor and memory). (Non-Final, Act. 11). The Examiner finds that these elements require no more than a generic computer to perform generic computer functions and do not amount to significantly more than the abstract idea.

In view of the foregoing, we will sustain the Examiner's rejection of claim 1. We will also sustain this rejection as it is directed to claims 2, 5, and 9 because the Appellants have not argued the separate eligibility of these claims. We will also sustain the Examiner's rejection of independent claims 31 and 38 and claims 32–36 and 39–43 dependent therefrom because the Appellants has advanced similar arguments regarding the eligibility of

Appeal 2017-003978
Application 10/789,805

claims 31 and 38 as were advanced in regard to the eligibility of claim 1.

35 U.S.C. §103(a) REJECTION

We will not sustain this rejection because we agree with the Appellants that the prior art does not disclose a “service provider being a computer system.” The Examiner relies on Berger’s teaching of an administrator in paragraph 33 as a teaching of a service provider because the administrator of Berger is providing the service of the initial set of rules regarding whether the application is acting maliciously. (Non-Final Act. 21). The Examiner further finds that the administrator in Berger can be a computer system and directs our attention to the disclosure at paragraph 50 in Berger that “the user of host computer system and/or administrator can be notified using any one of a number of techniques, e.g. by using a pop up window or by writing to a file.” The Examiner reasons that since Berger discloses that the notification can be made by writing to a file, the administrator of Berger may be a computer system.

We do not agree with the Examiner that paragraph 50 discloses that an administrator is a computer system. In our view, the sentence relied on by the Examiner merely discloses that there are various methods of notifying an administrator. In addition, we agree with the Appellants argument in response to this rejection that the term “administrator” in the Information Technology field is a computer professional i.e. a person. (Reply Brief 10–11). This finding is supported by the disclosure in Berger in paragraphs 8, 15, 33 and 49. For example, paragraph 8 discloses that in past system an administrator examines the potentially unsafe application to determine if the application is safe or not safe but that this requires that administrator

Appeal 2017-003978
Application 10/789,805

resources be utilized which is consistent with an administrator being a person and not a computer system. The Examiner has not directed our attention to any disclosure in Berger that the administrator is a computer system.

In view of the foregoing, we will not sustain this rejection as it is directed to claim 1 and claims 2, 5, 6 and 9 dependent therefrom. We will also sustain the rejection as it is directed to claim 31 and claims 32 – 36 dependent therefrom because claim 31 also requires that the service provider is a computer system.

Claim 38 requires that the service provider receives notifications that the application is misbehaving when “the service consumers determine that the application is misbehaving . . . when the application requests certain services of the service provider.” The Examiner finds that the Berger administrator is the service provider and that the service provided is the service of the determining an initial set of rules regarding whether the application is acting maliciously. (Non-Final Act.). The Examiner further finds that Berger discloses the notification required in claim 38. However, the Examiner has not established that the application requests services of the administrator of Berger as required by claim 38. In this regard, there is no disclosure that the application requests the service of an initial set of rules. It follows that Berger does not disclose “wherein the application misbehaves *when the application requests certain services of the service provider,*” as required by claim 38. Therefore, we will not sustain this rejection as it is directed to claim 38 and claims 39-43 dependent therefrom.

CONCLUSIONS OF LAW

We conclude the Examiner did err in rejecting appealed claims under

Appeal 2017-003978
Application 10/789,805
35 U.S.C. §112, first paragraph.

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

We conclude that the Examiner did err in rejecting the appealed claims under 35 U.S.C. §103(a).

DECISION

The Examiner's rejection under 35 U.S.C. §112, first paragraph is reversed.

The Examiner's rejection under 35 U.S.C. §101 is affirmed.

The Examiner's rejection under 35 U.S.C. §103(a) is reversed.

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