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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte MAURO BARBIERI,
SERVERIUS PETRUS PAULUS PRONK,
and JOHANNES HENRICUS MARIA KORST

Appeal 2017–005855
Application 13/810,242
Technology Center 3600

Before MURRIEL E. CRAWFORD, ANTON W. FETTING, and
BIBHU R. MOHANTY, *Administrative Patent Judges*.

FETTING, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE¹

Mauro Barbieri, Serverius Petrus Paulus Pronk, and Johannes Henricus Maria Korst (Appellants) seek review under 35 U.S.C. § 134 of a final rejection of claims 1–4, 6–10, 12–14, and 16–19, the only claims pending in

¹ Our decision will make reference to the Appellants’ Appeal Brief (“Br.,” filed June 21, 2016) and the Examiner’s Answer (“Ans.,” mailed December 1, 2016), and Final Action (“Final Act.,” mailed January 21, 2016).

the application on appeal. We have jurisdiction over the appeal pursuant to 35 U.S.C. § 6(b).

The Appellants invented a way of replacing an advertisement.
Specification 1:2–3.

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 for rendering an advertisement, the method being executed by an apparatus that comprises a user interface and a processor, the method comprising:

[1] identifying, by the processor, whether a current advertisement received or did not receive a negative input;

[2] estimating, by the processor, which one or more features of the current advertisement caused the negative input,

the estimating being based at least partially on a discriminative power of the one or more features of the current advertisement,

the one or more features of the current advertisement being arranged in a feature space configured in the apparatus and accessible by the processor,

the feature space comprising features associated with advertisements;

[3] selecting, by the processor, a new advertisement that differs from the current advertisement,

the selecting being based at least partially on a distance in the feature space between one or more features of the new advertisement and the estimated one or more features of the current advertisement;

and

[4] replacing, by the processor, the current advertisement with the new advertisement.

The Examiner relies upon the following prior art:

Broder	US 2009/0254512 A1	Oct. 08, 2009
Hegeman	US 2011/0106630 A1	May 05, 2011
Novikov	US 2011/0153421 A1	June 23, 2011
Kenedy	US 8,386,519 B2	Feb. 26, 2013

Claims 1–4, 6–10, 12–14, and 16–19 stand rejected under 35 U.S.C. §112(a) as lacking a supporting written description within the original disclosure.²

Claims 1–4, 6–10, 12–14, and 16–19 stand rejected under 35 U.S.C. §101 as directed to a judicial exception without significantly more.

Claims 1–4, 6–10, 12–14, 17, and 19 stand rejected under 35 U.S.C. §103(a) as unpatentable over Novikov, Broder, and Kenedy.

Claims 16 and 18 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Novikov, Broder, Kenedy, and Hegeman.

ISSUES

The issues of written description matter turn primarily on whether the Specification provides species support for the genus terms used in the claims.

² A rejection under 35 U.S.C. § 112(b) was withdrawn. Ans. 3–4.

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 prior art describes replacing an advertisement.

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 “discriminative power.”
02. The ordinary meaning of “discriminative” in the context of the invention is drawing distinctions.³
03. The disclosure contains no lexicographic definition of “feature space.”
04. The disclosure contains no lexicographic definition of “replacing.”
05. The ordinary meaning of “replace” in the context of the invention is to take the place of, or provide a substitute for.⁴

³ American Heritage Dictionary, 2018
<https://www.ahdictionary.com/word/search.html?q=discriminative>

Facts Related to Appellants' Disclosure

06. The dissimilarity between the new and current advertisements is calculated using a distance measure in the advertisements feature space (e.g. the Jaccard distance⁵). Spec. 9:20–22.

Facts Related to the Prior Art

Novikov

07. Novikov is directed to social networking, and more specifically to combining social networking system content and advertisements in a social networking environment. Novikov para. 1.
08. Novikov's social networking system uses information obtained from and about its users to select social networking content and advertising for presentation to users in a way that optimizes for a particular optimization goal. The social networking system may be configured for one or more optimization goals, such as maximizing monetization, sharing, user engagement, system growth, communication, or any other goal of an administrator of

⁴ American Heritage Dictionary, 2018
<https://www.ahdictionary.com/word/search.html?q=replace>

⁵ The Jaccard distance, is a measure of how dissimilar two sets are. It is the complement of the Jaccard index and can be found by subtracting the Jaccard Index from 100%. The Jaccard similarity index compares members for two sets to see which members are shared and which are distinct. It's a measure of similarity for the two sets of data, with a range from 0% to 100%. The higher the percentage, the more similar the two populations.
<http://www.statisticshowto.com/jaccard-index/>

the social networking system. The optimization goal may be altered at any time, and in real time, depending on the needs or priorities of the administrator of the system. Novikov para. 7.

09. Novikov describes a process by which feedback is collected from users and is used in selecting content items, according to one embodiment. The display server receives explicit feedback when a user rates content items provided. Novikov para. 80.

10. Novikov describes how stored feedback is used to select content items. When the display server has indicated that certain information (e.g. a particular web page) has been requested by a user and the content server requests content items for a display from the selector, the selector can query for feedback from the feedback store. The store returns any feedback available from the user (e.g., ratings or actions of a user regarding prior content items provided). The content item selector then applies this feedback in selecting content items. For example, if the user gives poor ratings to all travel ads provided, the selector can avoid travel ads for that user. If the user interacts only with social ads and not other ads, the selector can focus on social ads. The feedback can be accumulated in the store and filtered in a variety of ways to acquire trends for a given user, and the selector can apply this information in a variety of ways to select items. Novikov para. 80.

Broder

11. Broder is directed to computer networks, and more particularly, to matching of advertisements with content provided over the Internet. Broder para. 2.

Kenedy

12. Kenedy is directed to delivering personalized web search results and online recommendations based on the pangenetic attributes of individuals. More particularly, these approaches rely on correlations determined between specific pangenetic attributes—also referred to in this disclosure as pangenetic data—and historical online behavior and preferences of users with respect to information and offerings contained in webpages. Kenedy 1:6–15.

ANALYSIS

We begin by construing some unusual terms in the claims. There is no lexicographic definition of “discriminative power,” but the ordinary meaning of discriminative is drawing distinctions. We therefore construe “discriminative power” to mean capacity for drawing distinctions. There is no lexicographic definition of “feature space.” Its only use in the Specification is in using a distance measure in the advertisements feature space. The use of the words “distance” and “space” initially suggest some measure of physical distance in some n–dimensional space. The Specification, however, suggests the Jaccard distance, a measure of statistical dissimilarity between data sets rather than physical distance, as an

example. Thus a feature space is a set of features rather than some physical space containing features. Similarly, “distance in the feature space between one or more features of the new advertisement and the estimated one or more features of the current advertisement” is a measure of statistical dissimilarity between feature data sets in the advertisements.

Claims 1–4, 6–10, 12–14, and 16–19 rejected under 35 U.S.C. § 112(a) as lacking a supporting written description within the original disclosure

The Examiner enters several rejections as to written description because the claims recite several forms of genus and the Specification fails to show possession of all species within the genus. The Examiner cites MPEP 2161.01 Computer Programming, Computer Implemented Inventions, and 35 U.S.C. 112(a) or Pre-AIA 35 U.S.C. 112, First Paragraph. Final Act. 8–9. This MPEP section cites *Ariad Pharm., Inc. v. Eli Lilly & Co.*, 598 F.3d 1336 (Fed. Cir. 2010) (en banc).

[A] generic claim may define the boundaries of a vast genus of chemical compounds, and yet the question may still remain whether the specification, including original claim language, demonstrates that the applicant has invented species sufficient to support a claim to a genus. The problem is especially acute with genus claims that use functional language to define the boundaries of a claimed genus. In such a case, the functional claim may simply claim a desired result, and may do so without describing species that achieve that result. But the specification must demonstrate that the applicant has made a generic invention that achieves the claimed result and do so by showing that the applicant has invented species sufficient to support a claim to the functionally-defined genus.

Ariad Pharmaceuticals v. Eli Lilly and Co., 598 F.3d 1336, 1349 (Fed. Cir. 2010).

[A] sufficient description of a genus instead requires the disclosure of either a representative number of species falling within the scope of the genus or structural features common to the members of the genus so that one of skill in the art can “visualize or recognize” the members of the genus. We explained that an adequate written description requires a precise definition, such as by structure, formula, chemical name, physical properties, or other properties, of species falling within the genus sufficient to distinguish the genus from other materials. We have also held that functional claim language can meet the written description requirement when the art has established a correlation between structure and function. But merely drawing a fence around the outer limits of a purported genus is not an adequate substitute for describing a variety of materials constituting the genus and showing that one has invented a genus and not just a species.

Id. at 1350. See also *LizardTech, Inc. v. Earth Resource Mapping, Inc.*, 424 F.3d 1336, 1345 (Fed. Cir. 2005) for holding such written description requirements in electrical and computer technology claims. In reviewing the rejections, it is helpful to bear in mind that the Specification does not bulge with disclosure at only 10 ½ pages. As the claim construction *supra* indicates, this paucity of disclosure contains numerous unusual terminology that are not lexicographically defined and provides negligible textual support for those claim recitations.

The Examiner initially rejects the use of “feature space” as being inadequately supported. Final Act. 9–10. The Examiner determines that the Specification only uses the phrase once, and provides no description of what it is or made of, how it would be created or instantiated, or help to one of ordinary skill to understand what this means. The Examiner thus determines

that there is no support for describing the genus other than providing a title, and no support for showing that any of the species in the genus were in the inventor's possession.

Appellants do not respond directly to this rejection, but instead parse the claim and show where the Specification in some manner supports the parsed portion. Br. 9–15. This only confirms the Examiner's determination that there is exactly one place in the Specification that mentions "feature space" and provides no additional support to understand what it is or how it is constituted. Br. 10. This shows Appellants had possession of the title of the genus, but no more. Appellants do not provide evidence that one of ordinary skill would understand the term as it is used in the Specification. This is insufficient under *Ariad*, as the Examiner determines. Ans. 6.

The Examiner next rejects the use of "estimated to have caused" as being inadequately supported. Final Act. 11. The Examiner determines that the Specification describes hypothesizing and not estimating.

Appellants do not respond directly to this rejection, but instead parse the claim and show where the Specification in some manner supports the parsed portion. Br. 9–15. This only confirms the Examiner's determination that the Specification describes "hypothesized" and not "estimated." Br. 10. This shows Appellants had possession of the hypothesizing, but no more. Appellants do not provide evidence that one of ordinary skill would understand the term "hypothesized" as it is used in the Specification to be encompassed by the term "estimated" recited in the claims. This is insufficient under *Ariad*, as the Examiner determines. Ans. 6.

The Examiner next rejects the use of “detect whether the current advertisement caused a negative input” as being inadequately supported with respect to claims 13, 14, and 18. Final Act. 11–12. The Examiner determines that the Specification describes hypothesizing and not detecting.

Appellants do not respond directly to this rejection, but instead parse the claim and show where the Specification in some manner supports the parsed portion. Br. 9–15. This only confirms the Examiner’s determination that the Specification describes “hypothesized” and not “detected.” Br. 14. This shows Appellants had possession of the hypothesizing, but no more. Appellants do not provide evidence that one of ordinary skill would understand the term “hypothesized” as it is used in the Specification to be encompassed by the term “detected” recited in the claims. This is insufficient under *Ariad*, as the Examiner determines. Ans. 12.

The Examiner next rejects the use of “calculate a plurality of products between advertisements and the current advertisement” as being inadequately supported with respect to claims 16 and 18. Final Act. 12–13.

Appellants do not respond directly to this rejection, but instead parse the independent claims and show where the Specification in some manner supports the parsed portion. Br. 9–15. Appellants do not comment on claims 16 and 18. Thus this is uncontested.

Claims 1–4, 6–10, 12–14, and 16–19 rejected under 35 U.S.C. § 101 as directed to a judicial exception without significantly more

STEP 1⁶

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 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

⁶ For continuity of analysis, we adopt the steps nomenclature from 2019 Revised Patent Subject Matter Eligibility Guidance, 84 FR 50 (Jan. 7, 2019).

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 identifying data, estimating what data caused what was identified, selecting a new ad, and replacing one ad with another. Thus, claim 1 recites receiving, analyzing, and modifying 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.

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 concepts⁷, certain methods

⁷ 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)

of organizing human interactions⁸, including fundamental economic practices and business activities, or mental processes⁹.

The Examiner determines the claims to be directed to processing (e.g. advertising) commercial/contractual information. Final Act. 14.

The preamble to claim 1 recites that it is a method for rendering an advertisement. The steps in claim 1 result in replacing one advertisement with another absent any technological mechanism other than a conventional computer for doing so.

As to the specific limitations, limitations 1–4 are the steps associated with performing what the claim produces and recite performing identifying data, estimating features, and replacing an ad with a selected ad, which is simply replacing an ad based on judgement. To advocate replacing an ad based on judgement is conceptual advice for results to be obtained and not technological operations.

The Specification at 1:2–3 recites that the invention relates to replacing an advertisement. Thus, all this intrinsic evidence shows that claim 1 is directed to replacing an advertisement, i.e. advertising. This is consistent with the Examiner’s determination.

⁸ 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)

⁹ 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 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 promoting commerce. 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 decide to replace one ad with another based on some negative input, guessing which feature caused that negative input, and selecting the replacement based on some statistical measure. 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 messaging to promote sales, which is among the most notorious of organizing activities. The concept of advertising as advised to be done by deciding to replace one ad with another based on some negative input, guessing which feature caused that negative input, and selecting the replacement based on some statistical measure is designed to optimize the organization of sales activity. The steps recited in claim 1 are part of selecting an ad based on what is perceived as negative inputs and perceived relations between perceived features and some space in the data.

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).

Alternately, this is an example of concepts performed in the human mind as mental processes because the steps of receiving, analyzing, and modifying data mimic human thought processes, perhaps with paper and pencil, where the data interpretation is perceptible only in the human mind and the process recites estimating features and selecting an ad each of which is an exemplar of human judgment.

From this we conclude that at least to this degree, the claims are directed to the abstract idea of advertising by advising one to decide to replace one ad with another based on some negative input, guessing which feature caused that negative input, and selecting the replacement based on some statistical measure.

STEP 2A Prong 2

The next issue is whether the claims not only recite, but are more precisely directed to this concept itself or whether they are instead directed to some technological implementation or application of, or improvement to, this concept i.e. integrated into a practical application.¹⁰

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

¹⁰ See, e.g., *Alice*, 573 U.S. at 223, discussing *Diamond v. Diehr*, 450 U.S. 175 (1981).

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. 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 – 4 recite generic computer processing 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, Appellants' method claims simply recite the concept of advertising as performed by a generic computer. To be sure, the claims recite doing so by advising one to decide to replace one ad with another based on some negative input, guessing which feature caused that negative input, and selecting the replacement based on some statistical measure. 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 10+ pages of specification spell out different generic equipment¹¹ 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, the claims at issue amount to nothing significantly more than an instruction to apply the abstract idea of advertising by advising one to decide to replace one ad with another based on some negative input, guessing which feature caused that negative input, and selecting the

¹¹ The Specification describes using a suitably programmed computer. Spec. 11:10–12.

replacement based on some statistical measure 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 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 decide to replace one ad with another based on some negative input, guessing which feature caused that negative input, and selecting the replacement based on some statistical measure 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 claims provide an inventive concept because the additional elements recited in the claims provide 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, and modifying 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 see 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. Appellants do 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 Appellants’ method claims add nothing that is not already present when the steps are considered separately. The sequence of data reception—analysis—modification 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 claims do not provide an inventive concept because the additional elements recited in the claims do not provide significantly more than the recited judicial exception.

REMAINING CLAIMS

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.

As to the structural claims, they

are no different from the method claims in substance. The method claims recite the abstract idea implemented on a generic computer; the system claims recite a handful of generic computer components configured to implement the same idea. This Court has long “warn[ed] ... against” interpreting § 101 “in ways that make patent eligibility ‘depend simply on the draftsman’s art.’

Alice, 573 U.S. at 226. As a corollary, the claims are not directed to any particular machine.

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.

APPELLANTS' ARGUMENTS

As to Appellants' Appeal Brief arguments, we adopt the Examiner's determinations and analysis from Final Action 14–17 and Answer 16–22 and reach similar legal conclusions.

In particular, Appellants further argue that the asserted claims are akin to the claims found patent-eligible in *DDR Holdings, LLC v. Hotels.com, L.P.* 773 F.3d 1245 (Fed. Cir. 2014). Br. 24–26. In *DDR Holdings*, the Court evaluated the eligibility of claims “address[ing] the problem of retaining website visitors that, if adhering to the routine, conventional functioning of Internet hyperlink protocol, would be instantly transported away from a host's website after ‘clicking’ on an advertisement and activating a hyperlink.” *Id.* at 1257. There, the Court found that the claims were patent eligible because they transformed the manner in which a hyperlink typically functions to resolve a problem that had no “pre-Internet analog.” *Id.* at 1258. The Court cautioned, however, “that not all claims purporting to address Internet-centric challenges are eligible for patent.” *Id.* For example, in *DDR Holdings* the Court distinguished the patent-eligible claims at issue from claims found patent-ineligible in *Ultramercial*. *See id.* at 1258–59 (citing *Ultramercial*, 772 F.3d 709, 715–16 (Fed. Cir. 2014)). As noted there, the *Ultramercial* claims were “directed to a specific method of advertising and content distribution that was previously unknown and never employed on the Internet before.” *Id.* at 1258 (quoting *Ultramercial*, 772 F.3d at 715–16). Nevertheless, those claims were patent ineligible because they “merely

recite[d] the abstract idea of ‘offering media content in exchange for viewing an advertisement,’ along with ‘routine additional steps such as updating an activity log, requiring a request from the consumer to view the ad, restrictions on public access, and use of the Internet.’” *Id.*

Appellants’ asserted claims are analogous to claims found ineligible in *Ultramercial* and distinct from claims found eligible in *DDR Holdings*. The ineligible claims in *Ultramercial* were directed to a method of using advertising as an exchange or currency. 772 F.3d at 715. This is similar to the instant use of advertising in the claims, which use an ad as a replacement for another. The ineligible claims in *Ultramercial* recited “providing [a] media product for sale at an Internet website;” “restricting general public access to said media product;” “receiving from the consumer a request to view [a] sponsor message;” and “if the sponsor message is an interactive message, presenting at least one query to the consumer and allowing said consumer access to said media product after receiving a response to said at least one query.” 772 F.3d at 712. Similarly, Appellants’ asserted claims recite receiving, analyzing, and modifying data. This is precisely the type of Internet activity found ineligible in *Ultramercial*.

At bottom, the claims recite functions to be performed by any and all possible means, absent any technological details.

The claims thus do not go beyond “stating [the relevant] functions in general terms, without limiting them to technical means for performing the functions that are arguably an advance over conventional computer and network technology.” *Affinity Labs of Texas, LLC v. Amazon.com Inc.*, 838 F.3d 1266, 1271 (2016).

Claims 1–4, 6–10, 12–14, 17, and 19 rejected under 35 U.S.C. § 103(a) as unpatentable over Novikov, Broder, and Kenedy

We are persuaded by Appellants' argument that “Novak [sic, Novikov] does not disclose, for example, replacing a current advertisement with a new advertisement, since Novak provides future advertisements based on past feedback.” Br. 27. The Examiner responds that because Novikov’s selection of an advertisement differs from some advertisement placed into Novikov’s content store at an earlier time, this is a replacement. Ans. 27. The definition of a replacement is to take the place of, or provide a substitute for. An item that is selected cannot take the place of or provide a substitute for an item not selected, which never was in place.

Claims 16 and 18 rejected under 35 U.S.C. § 103(a) as unpatentable over Novikov, Broder, Kenedy, and Hegeman

These claims depend from the claims in the prior rejection.

CONCLUSIONS OF LAW

The rejection of claims 1–4, 6–10, 12–14, and 16–19 under 35 U.S.C. § 112(a) as lacking a supporting written description within the original disclosure is proper.

The rejection of claims 1–4, 6–10, 12–14, and 16–19 under 35 U.S.C. § 101 as directed to a judicial exception without significantly more is proper.

The rejection of claims 1–4, 6–10, 12–14, 17, and 19 under 35 U.S.C.

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§ 103(a) as unpatentable over Novikov, Broder, and Kenedy is improper.

The rejection of claims 16 and 18 under 35 U.S.C. § 103(a) as unpatentable over Novikov, Broder, Kenedy, and Hegeman is improper.

DECISION

The rejection of claims 1–4, 6–10, 12–14, and 16–19 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).

AFFIRMED