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 AKIHIRO SHIMURA

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Appeal 2018-005360
Application 14/655,086
Technology Center 3600

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Before CAROLYN D. THOMAS, HUNG H. BUI, and NABEEL U. KHAN,
Administrative Patent Judges.

BUI, *Administrative Patent Judge.*

DECISION ON APPEAL

Appellant seeks our review under 35 U.S.C. § 134(a) of the

Examiner's Final Rejection of claims 1–3 and 34–53, which are all the

claims pending in the application. Claims App'x. Claims 4–33 are

cancelled. Non-Final Act. 2. We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM.[1]

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[1] Our Decision refers to Appellant's Appeal Brief ("Br.") filed January 12,
2018; Examiner's Answer ("Ans.") mailed February 27, 2018; Non-Final
Office Action ("Non-Final Act.") mailed September 6, 2017; and original
Specification ("Spec.") filed June 24, 2015.

STATEMENT OF THE CASE

Appellant's invention relates to "an ad frame management system [shown in Figure 2] that controls an ad frame transaction market on the Internet delivery" and "that can enhance the advertising effect as a whole." Spec. ¶¶ 1, 10. Appellant's Figure 2 is reproduced below.
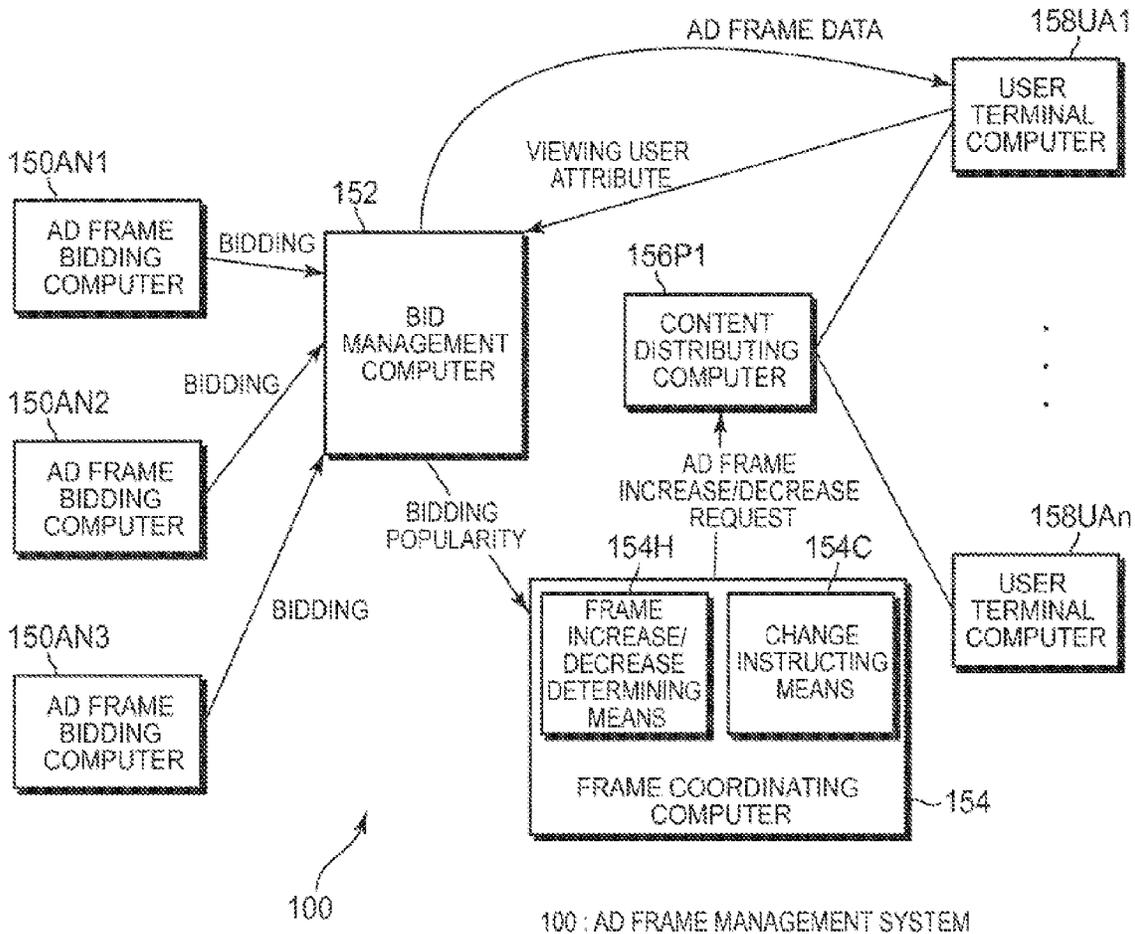

Figure 2 shows ad frame management system 100 including (1) bid management computer 152 to transmit bids for a current bid from various ad frame bidding computers 150AN1–AN3 and (2) frame coordinating computer 154 to determine whether to increase/decrease the number of add frames to be added to content for distribution based on bidding popularity. Spec. ¶¶ 56–59.

Claims 1, 2, and 3 are independent. Claim 1 illustrates the claimed subject matter, as reproduced below with disputed limitations in italics:

1.   An ad frame management system comprising:

a content distributing computer that distributes, to a user terminal computer, a distribution data including an ad frame and a content frame on one screen;

a bid management computer that manages bidding of ad frames according to a real-time bidding platform; and

a plurality of ad frame bidding computers that submit bids to the bid management computer,

a frame management system comprising:

a frame coordinating computer having:

a frame increase determining means storing therein a rule for increasing the number of ad frames and that determines whether to increase the number of ad frames so as to increase the number of the ad frames, without shifting the display layout of the distribution data; and

a change instructing means, connected to the content distributing computer, that issues a frame type change order to the content distributing computer when the frame increase determining means determines to increase the number of ad frames, the content distributing computer determines to increase the number of ad frames based a fluctuation in a click through rate of an advertisement per unit time of the content distributing computer, the fluctuation being determined based on an embedded tag provided for the frame coordinating computer, the fluctuation providing correlation for a match rate between content and the advertisement.

App. Br. 68 (Claims App'x) (bracketing added).

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REJECTIONS[2] & REFERENCES

(1) Claims 1–3 and 34–53 stand rejected under 35 U.S.C. § 112(a), as failing to comply with the written description requirement. Non-Final Act. 6–7.

(2) Claims 1–3 and 34–53 stand rejected under 35 U.S.C. § 112(b), as being indefinite. Non-Final Act. 7–9.

(3) Claims 1–3 and 34–53 stand rejected under 35 U.S.C. § 101 because the claimed invention is directed to non-statutory subject matter. Non-Final Act. 10–14.

(4) Claim 3 stands rejected under 35 U.S.C. § 102(a)(1) as being anticipated by Serena (US 2012/0198321 A1; published Aug. 2, 2012). Non-Final Act. 14–17.

(5) Claims 1, 2, 34–36, 38, 39, 42–46, 48, 49, 52, and 53 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Serena and Flake et al. (US 2008/0004990 A1; published Jan. 3, 2008) (hereinafter "Flake"). Non-Final Act. 17–29.

(6) Claims 37 and 47 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Serena, Flake, and Pfeiffer (US 2008/0154889 A1; published June 26, 2008). Non-Final Act. 29–30.

(7) Claims 40, 41, 50, and 51 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Serena, Flake, and Makeev (US 2009/0319372 A1; published Dec. 24, 2009). Non-Final Act. 30–32.

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[2] We note that the Examiner has objected to the Specification as introducing new matter. Non-Final Act. 2–3. Appellant presents arguments directed to the objection. However, as recognized by the Examiner, the objection is a petitionable matter—not an appealable matter under MPEP § 1002. As such, we need not consider this objection on appeal.

ANALYSIS

Written Description

With respect to claims 1–3 and 34–53, the Examiner finds several "means-plus-function" limitations recited therein, including: (1) "a frame increase determining means" and (2) "a change instructing means" recited in independent claims 1 and 2; (3) "a distribution request receiving means," (4) "a distribution data storing means" and (5) "a changing means" recited in independent claim 3; (6) "bidding popularity predicting means" recited in claims 34, 35, 44, 45; (7) "change instructing means" recited in claims 39 and 49; and (8) "informing means" recited in claims 52 and 53. Non-Final Act. 3–5. According to the Examiner, these "means-plus-function" limitations invoke the application of 35 U.S.C. § 112(f); however, "the specification does not provide an adequate disclosure of the corresponding structure . . . to satisfy the requirements of 35 U.S.C. § 112(b)" and "fails to disclose the algorithms needed to transform the general-purpose computer referred to in the specification into a special purpose computer" to perform the functions associated with their respective 35 U.S.C. § 112(f) limitations. Non-Final Act. 5–8.

Because Appellant's Specification does not disclose sufficient corresponding structure, i.e., an algorithm for performing the functions recited in these "processor" limitation, the Examiner finds claims 1–3 and 34–53 fails to comply with the written description requirement under 35 U.S.C. § 112(a). Non-Final Act. 7.

Appellant contends (1) "the claim terms should not be interpreted under 35 U.S.C. §112(f), and even if they are, there is sufficient structure and description in the specification to satisfy [] the written description

requirement"; and (2) "the specification does explicitly provide the specific software function being relied upon by the means element" in the context of steps shown in Figure 5 and text described in paragraphs 63–64, 72, 82–85 of Appellants' Specification. App. Br. 1–21.

We agree with Appellant. At the outset, we note the *written description* requirement under 35 U.S.C. § 112(a) requires Appellant to "reasonably convey[] 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 and Co.*, 598 F.3d 1336, 1351 (Fed. Cir. 2010). However, "the disclosure as originally filed does not have to provide *in haec verba* support for the claimed subject matter at issue." *Purdue Pharma L.P. v. Faulding Inc.*, 230 F.3d 1320, 1323 (Fed. Cir. 2000). In some cases, "drawings alone may provide a 'written description' of an invention as required by § 112." *Vas-Cath, Inc. v. Mahurkar*, 935 F.2d 1555, 1565 (Fed. Cir. 1991). Regardless, the disclosure must convey with reasonable clarity to those skilled in the art that the inventor was in possession of the invention. *Id.* at 1563–1564. Here, Appellant has shown that there is sufficient structure and description in the specification.

Because the Examiner has not explained why Appellant's Specification fails to make and use the claimed invention throughout its scope, without undue experimentation, we decline to sustain the § 112(a) rejection of claims 1–3 and 34–53 for failure to comply with the "enablement" requirement. "The enablement requirement is often more indulgent than the written description requirement. The specification need not explicitly teach those in the art to make and use the invention; the requirement is satisfied if, given what they already know, the specification

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teaches those in the art enough that they can make and use the invention without 'undue experimentation.'" *Amgen, Inc., v. Hoechst Marion Roussel, Inc.,* 314 F.3d 1313, 1334 (Fed. Cir. 2003).

Indefiniteness

Similar to the written description rejection, the Examiner finds several "means-plus-function" limitations, including: (1) "a frame increase determining means" and (2) "a change instructing means" recited in independent claims 1 and 2; (3) "a distribution request receiving means," (4) "a distribution data storing means" and (5) "a changing means" recited in independent claim 3; (6) "bidding popularity predicting means" recited in claims 34, 35, 44, 45; (7) "change instructing means" recited in claims 39 and 49; and (8) "informing means" recited in claims 52 and 53 invoke the application of 35 U.S.C. § 112(f). Non-Final Act. 4–5. However, the Examiner finds "the specification does not provide an adequate disclosure of the corresponding structure . . . to satisfy the requirements of 35 U.S.C. § 112(b)" and "fails to disclose the algorithms needed to transform the general-purpose computer" referred to in the Specification into a special purpose computer to perform the functions associated with their respective 35 U.S.C. § 112(f) limitations. Non-Final Act. 5–8.

Because Appellant's Specification does not disclose sufficient corresponding structure, i.e., an algorithm for performing the functions recited in these "processor" limitation, the Examiner finds claims 1–3 and 34–53 are indefinite under 35 U.S.C. § 112(b). Non-Final Act. 7–8.

Appellant contends (1) "the claim terms should not be interpreted under 35 U.S.C. §112(f), and even if they are, there is sufficient structure

and description in the specification to satisfy [] the written description requirement"; and (2) "the specification does explicitly provide the specific software function being relied upon by the means element" in the context of steps shown in Figure 5 and text described in paragraphs 63–64, 72, 82–85 of Appellant's Specification. App. Br. 1–21.

We agree with Appellant only in part. Contrary to Appellant's arguments, 35 U.S.C. § 112(f) is invoked to interpret a claim when there is a "means-plus-function" limitation recited therein. Under 35 U.S.C. § 112(f), the "means-plus-function" limitation must be "construed to cover the corresponding structure, material, or acts described in the specification and equivalents thereof." *Personalized Media Commc'ns, LLC v. Int'l Trade Comm'n*, 161 F.3d 696, 703 (Fed. Cir. 1998). If the "means-plus-function" limitation recited in the claim does not have an adequate supporting disclosure, then the claim fails to particularly point out and distinctly claim the invention as required under 35 U.S.C. § 112(b). *See In re Donaldson Co.*, 16 F.3d 1189, 1195 (Fed. Cir. 1994) ("[I]f one employs means-plus-function language in a claim, one must set forth in the specification an adequate disclosure showing what is meant . . . . If an applicant fails to set forth an adequate disclosure, the applicant has in effect failed to particularly point out and distinctly claim the invention as required by the second paragraph of section 112.")

In the context of software, the disclosed structure is a general purpose computer programmed to perform a disclosed algorithm. *WMS Gaming, Inc. v. Int'l Game Tech.*, 184 F.3d 1339, 1349 (Fed. Cir. 1999) ("In a means-plus-function claim in which the disclosed structure is a computer, or microprocessor, programmed to carry out an algorithm, the disclosed

structure is not the general purpose computer, but rather the special purpose computer programmed to perform the disclosed algorithm."). A general purpose computer alone is insufficient if the Specification fails to disclose an algorithm for performing the claimed function. *Net MoneyIN, Inc. v. VeriSign, Inc.*, 545 F.3d 1359, 1367 (Fed. Cir. 2008). In other words, Appellant's Specification must sufficiently disclose an algorithm to transform the general purpose computer or processor to a special purpose processor programmed to perform the disclosed algorithm. *Aristocrat Techs. Australia Pty Ltd. v. Int'l Game Tech.*, 521 F.3d 1328, 1338 (Fed. Cir. 2008). An algorithm is defined, for example, as "a finite sequence of steps for solving a logical or mathematical problem or performing a task." MICROSOFT COMPUTER DICTIONARY 23 (5th ed. 2002). An applicant may express the algorithm in any understandable terms including as a mathematical formula, in prose, in a flow chart, or "in any other manner that provides sufficient structure." *Finisar Corp. v. DirecTV Group, Inc.*, 523 F.3d 1323, 1340 (Fed. Cir. 2008).

An indefiniteness rejection under § 112(b) is appropriate if the Specification discloses no corresponding algorithm associated with a computer or processor. *Aristocrat*, 521 F.3d at 1337–38. However, mere reference to a general purpose computer or processor with appropriate programming without providing an explanation of the appropriate programming, or to "software" without providing detail about the means to accomplish the software function, is not an adequate disclosure. *Id.* at 1334; *Finisar*, 523 F.3d at 1340–41. Likewise, simply reciting the claimed function in the Specification, while saying nothing about how the computer or processor ensures that those functions are performed, is not a sufficient

disclosure for an algorithm which, by definition, must contain a sequence of steps. *Blackboard, Inc. v. Desire2Learn, Inc.*, 574 F.3d 1371, 1384 (Fed. Cir. 2009).

Nevertheless, we agree with Appellant that the flowchart shown in Figure 5 and text described in at least paragraphs 63–64, 72, 82–85 of Appellant's Specification provide an algorithm for performing the functions and, as such, sufficient corresponding structure. Accordingly, we do not sustain the Examiner's rejection of claims 1–3 and 34–53 as indefinite under 35 U.S.C. § 112(b).

Abstract Idea under 35 U.S.C. § 101: Claims 1–3 and 34–53

Patent eligibility is a question of law that is reviewable *de novo*. *Dealertrack, Inc. v. Huber*, 674 F.3d 1315, 1333 (Fed. Cir. 2012). In *Alice Corp. Pty. Ltd. v. CLS Bank Int'l*, 134 S. Ct. 2347 (2014), the Supreme Court reiterates an analytical two-step framework previously set forth in *Mayo Collaborative Services v. Prometheus Laboratories, Inc.*, 566 U.S. 66, 79 (2012), "for distinguishing patents that claim laws of nature, natural phenomena, and abstract ideas from those that claim patent-eligible applications of those concepts." *Alice*, 134 S. Ct. at 2355. The first step in the analysis is to "determine whether the claims at issue are directed to one of those patent-ineligible concepts," such as an abstract idea. *Id.* If the claims are directed to eligible subject matter, the inquiry ends. *Thales Visionix Inc. v. United States*, 850 F.3d 1343, 1349 (Fed. Cir. 2017); *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1339 (Fed. Cir. 2016). If the claims are directed to a patent-ineligible concept, the second step in the analysis is to consider the elements of the claims "individually and 'as an ordered

combination'" to determine whether there are additional elements that

"'transform the nature of the claim' into a patent-eligible application."

Alice, 134 S. Ct. at 2355 (citing *Mayo*, 566 U.S. at 79, 78). In other words,

the second step is to "search for an 'inventive concept'—*i.e.*, an element or

combination of elements that is 'sufficient to ensure that the patent in

practice amounts to significantly more than a patent upon the [ineligible

concept] itself.'" *Id.* (citing *Mayo*, 566 U.S. at 72–73).

In rejecting independent claims 1, 2, and 3, and dependent claims 34–

53 under 35 U.S.C. § 101, the Examiner finds these claims are directed to an

abstract idea of "distributing data including an ad[vertisement]" and

"*managing* bids [of advertisement], *submitting* bids, *determining* whether

to increase the number of ad frames without shifting the display layout of the

distribution data, and *issuing* a frame type change order . . . to increase the

number of ad frames" which is analogous or similar to the abstract ideas of

"collecting information, analyzing it, and displaying certain results of the

collection and analysis" discussed in *Electric Power Group*. Non-Final Act.

10–11 (citing *Elec. Power Grp., LLC v. Alstom S.A.*, 830 F.3d 1350, 1353

(Fed. Cir. 2016)). The Examiner also finds "the claimed managing bidding,

submitting bids, and actions for fulfilling obligations created by the bidding

(e.g., placing an ad in an ad frame)" also "relate to interpersonal and

intrapersonal activities such as managing relationships or transactions

between people, satisfying or avoiding a legal obligation, and advertising,

marketing, and sales activities or behavior," which is considered as "a

fundamental economic practice" and "certain methods of organizing human

activity" similar to fundamental economic and transactional practices

identified in *Alice* and *Bilski v. Kappos*, 561 U.S. 593 (2010). Ans. 8–9;

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Final Act. 11–12. In addition, the Examiner finds the steps recited in claims 1–3 and 34–53 "can be performed mentally or by a human using a pen and paper." Non-Final Act. 11; Ans. 8.

The Examiner further finds claims 1–3 and 34–53 "do not include additional elements that are sufficient to amount to significantly more than the judicial exception because the additional [computer] elements" (e.g., a content distributing computer, a user terminal, a bid management computer, a plurality of ad frame bidding computers, a frame coordinating computer equipped with various means) "are recited at a high level of generality (see at least ¶¶ [0060]–[0066] of applicant's specification) and provide conventional computer functions that do not add meaningful limits to practicing the abstract idea." Non-Final Act. 12–13; Ans. 11–12.

Alice/Mayo—Step 1

Turning now to the first step of the *Alice* inquiry, Appellant argues the claims are not directed to "an abstract idea" because:

(1) "the focus of the claims is on a specific improvement of an existing technology," i.e., "the present technology makes advertisement frame(s) work without [] drawbacks by switching from the already placed content frame(s) to the advertisement frames(s) based on technical rules" (App. Br. 24–29) (emphasis omitted);

(2) "this technology cannot be performed in someone's mind and is necessarily rooted in computer and internet technology," "[t]he claims certainly solve a technical problem with existing internet and advertising techniques" (App. Br. 29–30);

(3) "the claims do not invoke computer elements merely as a tool in its ordinary capacity" (App. Br. 30–31) (emphasis omitted);

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(4) "the claims are not directed to any method of organizing human activities" (App. Br. 31–34) (emphasis omitted);

(5) "[l]ike *Enfish*, the claimed invention is directed to a specific improvement to the way computers operate. For example, the system of claim 1 is at least capable of improving an ad frame management system that controls an ad frame transaction market on the Internet delivery, and more particularly to a dynamic switching processing for switching from a content frame to an ad frame, or vice versa" (App. Br. 36–37 (citing *Enfish*); and

(6) "[l]ike *McRO*, the instant claims do not recite conventional methods for switching content in a web page that have been used by humans or by existing machines. Instead, the claims are a patentable, technological improvement over existing methods" (App. Br. 37–38 (citing *McRO, Inc. v. Bandai Namco Games America Inc.*, 837 F.3d 1299 (Fed. Cir. 2016)).

Appellant's arguments are not persuasive. Appellant's Specification is directed to "an ad[vertisement] frame management system that can enhance the advertising effect as a whole." Spec. ¶ 10. The Specification further provides embodiments for evaluating whether to increase the number of ads based on its popularity and its demand. *See* Fig. 5. Thus, we agree with the Examiner that the claims are directed to the abstract idea of "distributing data including an ad[vertisement]," which is a fundamental economic practice. Ans. 10. Such activities are squarely within the realm of abstract ideas. Evaluating whether to increase the number of ads based on its popularity and its demand for distribution is a fundamental business practice, like (1) risk hedging in *Bilski*, (2) intermediated settlement in *Alice*, 134 S. Ct. at 2356–57, (3) verifying credit card transactions in *CyberSource Corp. v. Retail Decisions, Inc.*, 654 F.3d 1366, 1370 (Fed. Cir. 2011), (4) collecting and analyzing information to detect and notify of misuses in

FairWarning IP, LLC v. Iatric Sys., Inc., 839 F.3d 1089, 1093–94 (Fed. Cir. 2016), and (5) guaranteeing transactions in *buySAFE, Inc. v. Google, Inc.*, 765 F.3d 1350, 1354 (Fed. Cir. 2014). Evaluating whether to increase the number of ads based on its popularity and its demand for distribution is also a building block of a market economy. Thus, distribution of ads (advertisements), like risk hedging, intermediated settlement, and verifying credit card transactions, is an "abstract idea" beyond the scope of § 101. *See Alice*, 134 S. Ct. at 2356.

As also recognized by the Examiner (Ans. 8), evaluating whether to increase the number of ads based on its popularity and its demand for distribution could be performed in the human mind, or could be performed manually using, at most, a pen and paper, without need of any computer or other machine. *See CyberSource*, 654 F.3d at 1372–73 ("[A] method that can be performed by human thought alone is merely an abstract idea and is not patent-eligible under § 101."); *see also In re Comiskey*, 554 F.3d 967, 979 (Fed. Cir. 2009) ("[M]ental processes–or processes of human thinking–standing alone are not patentable even if they have practical application."); *Gottschalk v. Benson*, 409 U.S. 63, 67 (1972) ("Phenomena of nature . . . , *mental processes*, and abstract intellectual concepts are not patentable, as they are the basic tools of scientific and technological work" (emphasis added)). Additionally, mental processes remain unpatentable even when automated to reduce the burden on the user of what once could have been done with pen and paper. *CyberSource*, 654 F.3d at 1375 ("That purely mental processes can be unpatentable, even when performed by a computer, was precisely the holding of the Supreme Court in *Gottschalk v. Benson*."). All the functions recited in Appellant's claims 1–3, including receiving an

ad frame, submitting bids of ad frames, determining whether to increase the number of ad frames based on a click rate, can be performed in the human mind, or by a human (advertisement executive) using pen and paper.

Accordingly, we agree with the Examiner that claims 1–3 and 34–53 are directed to "distributing [] an ad[vertisement]," and evaluating whether to increase the number of ads based on its popularity and its demand for distribution, which is both (1) "a fundamental economic practice" identified as an "abstract idea" by the Supreme Court in *Bilski* and *Alice*, and (2) "mental processes" identified as an abstract idea by the Supreme Court in its earlier trilogy of *Gottschalk, Parker v. Flook*, 437 U.S. 584 (1978), and *Diamond v. Diehr*, 450 U.S. 175 (1981).

Alice/Mayo—Step 2

In the second step of the *Alice* inquiry, Appellant argues the claims recite "additional elements that add significantly more to any alleged abstract concept" because: (1) "[l]ike *BASCOM* and *DDR* . . . the ordered combination of the claimed features transforms any alleged abstract idea into a particular, practical application of the alleged abstract idea" (App. Br. 38–39 (citing *DDR Holdings, LLC v. Hotels.com, L.P.*, 773 F.3d 1245 (Fed. Cir. 2014) and *Bascom Global Internet Services, Inc. v. AT&T Mobility LLC*, 827 F.3d 1341 (Fed. Cir. 2016)); and (2) "the Office Action has simply omitted or ignored most of the body of the claims" and "[a]t this high level of abstraction, the meaningful features of the claims have simply been ignored." (App. Br. 39–42).

We are not persuaded by Appellant's arguments. Rather, we agree with the Examiner that (1) the functions recited in Appellant's claims 1–3, including receiving an ad frame, submitting bids of ad frames, determining

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whether to increase the number of ad frames based on a click rate are implemented on generic computer components (e.g., computer and processor); and (2) these additional elements (generic computer components), whether taken individually or as an ordered combination, do not add significantly more than the abstract idea because these additional elements (generic computer components) are well-understood, routine and conventional. Ans. 11–12. As described by the Supreme Court, the second step of the *Alice* inquiry is to "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*, 134 S. Ct. at 2355 (citing *Mayo*, 566 U.S. at 72–73). As discussed *supra*, we are not persuaded the added computer elements transform the abstract idea into a patent eligible invention. Rather, claims 1–3 simply incorporate a general-purpose computer and generic components to perform the abstract concept of "distributing [] an ad[vertisement]," and evaluating whether to increase the number of ads based on its popularity and its demand for distribution. Spec. ¶¶ 10–12, 28, 42, Fig. 5. Appellant has not directed our attention to anything in the record that shows specialized computer hardware is required, nor has Appellant shown how the claims are performed such that they are not routine, conventional functions of a generic computer. *See Alice*, 134 S. Ct. 2358 ("the mere recitation of a generic computer cannot transform a patent-ineligible abstract idea into a patent-eligible invention.")

In fact, none of the steps and elements recited in Appellant's claims 1–3 provide, and nowhere in Appellant's Specification can we find, any description or explanation as to how "distributing [] an ad[vertisement]," and

evaluating whether to increase the number of ads based on its popularity and its demand for distribution is intended to provide: (1) a "solution . . . necessarily rooted in computer technology in order to overcome a problem specifically arising in the realm of computer networks," as explained by the Federal Circuit in *DDR Holdings*, 773 F.3d at 1257; (2) "a specific improvement to the way computers operate," as explained in *Enfish*, 822 F.3d at 1336; or (3) an "unconventional technological solution . . . to a technological problem" that "improve[s] the performance of the system itself," as explained in *Amdocs (Israel) Ltd. v. Openet Telecom, Inc.*, 841 F.3d 1288, 1300, 1302 (Fed. Cir. 2016).

Accordingly, claims 1–3 and 34–53, when considered "both individually and 'as an ordered combination,'" amount to nothing more than an attempt to patent the abstract idea embodied in the steps of the claims (*see Alice*, 134 S. Ct. at 2355 (quoting *Mayo*, 566 U.S. at 78)).

Lastly, Appellant argues that the claims do not seek to tie up or preempt "all ways of providing internet content." App. Br. 39. However, this argument is not persuasive because, although "preemption may signal patent ineligible subject matter, the absence of complete preemption does not demonstrate patent eligibility." *Ariosa Diagnostics, Inc. v. Sequenom, Inc.*, 788 F.3d 1371, 1379 (Fed. Cir. 2015). "Where a patent's claims are deemed only to disclose patent ineligible subject matter" under the *Alice/Mayo* framework, "preemption concerns are fully addressed and made moot." *Id.*

Because we agree with the Examiner's analysis and find Appellant's arguments insufficient to show error, we sustain the rejection of claims 1–3 and 34–53 under 35 U.S.C. § 101.

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Anticipation under 35 U.S.C. § 102: Claim 3

Claim 3 recites a content distributing computer connected to a frame coordinating computer and a user terminal computer, comprising, *inter alia*:

> a changing means, connected to the content distributing computer, adapted to change the content frame to the ad frame of the distribution data stored in the storing means without shifting the display layout of the distribution data, upon receiving an order to change the number of frames from the frame coordinating computer, the content distributing computer determines to increase the number of ad frames based a fluctuation in a click through rate of an advertisement per unit time of the content distributing computer, the fluctuation being determined based on an embedded tag provided for a frame coordinating computer, the fluctuation providing correlation for a match rate between content and the advertisement.

App. Br. 69 (Claims App'x).

Appellant acknowledges Serena discloses an observation program to observe content which includes at least one term (e.g., an advertisement for a first bank) and replace an advertisement with a replacement content such as another advertisement or service for a second bank, or an advertisement link (hyperlink). App. Br. 48–49 (citing Serena ¶¶ 2, 39, 41, 47, 75–76). However, Appellant argues Serena does not disclose any

> changing means, connected to the content distributing computer, adapted to change the content frame to the ad frame of the distribution data stored in the storing means **without shifting the display layout of the distribution data,** upon **receiving an order to change the number of frames from the frame coordinating computer**

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as recited in claim 3. App. Br. 49–50. In addition, Appellant argues "Serena is absolutely devoid of any teaching [] that can be correlated to the claimed feature of a click through rate of an advertisement per unit time let alone the other features" recited in claim 3. App. Br. 54.

In response, the Examiner takes the position that (1) when an advertisement of Serena is replaced with a replacement content (e.g., advertisement or hyperlink) "the total number [of] areas or regions on the page—i.e., ad and content frames—as well as the page layout stays the same when a replacement image of the same size is used" and (2) Serena's meta-clicking (for example, alt-shift click) on the advertisement represents Appellant's claimed "click through rate of an advertisement per unit time." As such, the Examiner asserts Serena discloses (1) "chang[ing] the content frame to the ad frame of the distribution data stored in the storing means without shifting the display layout of the distribution data" and (2) "increas[ing] the number of ad frames based a fluctuation in a click through rate of an advertisement per unit time of the content distributing computer" as recited in claim 3. Ans. 13–14 (citing Serena ¶¶ 37, 43, 47, 75, 89).

We disagree with the Examiner. Anticipation under 35 U.S.C. § 102 is a question of fact. *Brown v. 3M*, 265 F.3d 1349, 1351 (Fed. Cir. 2001). A patent claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described in a single prior art reference. *Summit 6, LLC v. Samsung Elecs. Co.*, 802 F.3d 1283, 1294 (Fed. Cir. 2015) (citing *Net MoneyIN, Inc. v. VeriSign, Inc.*, 545 F.3d 1359, 1369 (Fed. Cir. 2008)).

Serena discloses the use of an observation program to allow a user to observe an advertisement 702 (shown in Figure 7) and to control the

replacement of the observed advertisement 702 by way of "meta-clicking

(for example, alt-shift click) on the advertisement 702. Serena ¶¶ 2, 17–18,

47. According to Serena, when the user clicks on the observed

advertisement 702, different options for preferences relating to that content

are provided to the user, including: (1) "a box **705** selecting the URL or a

substring of the URL address **705**," (2) a box **710** selecting the

advertisement itself, (3) a box **715** selecting all content originating from the

originator of that advertisement, and (4) a box **720** selecting the IP address.

Serena ¶ 47. Contrary to the Examiner's findings, Serena does not disclose

any

> increase the number of ad frames based a fluctuation in a click
> through rate of an advertisement per unit time of the content
> distributing computer, the fluctuation being determined based
> on an embedded tag provided for a frame coordinating
> computer, the fluctuation providing correlation for a match rate
> between content and the advertisement

recited in claim 3.

Based on this record, we do not sustain the Examiner's anticipation

rejection of independent claim 3 based on Serena.

Obviousness under 35 U.S.C. § 103: Claims 1, 2, and 34–53

Because the Examiner's obviousness rejections of claims 1, 2, and

34–53 are predicated upon the correctness of the anticipation rejection of

claim 3 based on Serena, we also do not sustain the Examiner's obviousness

rejections of (1) claims 1, 2, 34–36, 38, 39, 42–46, 48, 49, 52, and 53 as

unpatentable over Serena and Flake; (2) claims 37 and 47 as unpatentable

over Serena, Flake, and Pfeiffer; and (3) claims 40, 41, 50, and 51 s as

unpatentable over Serena, Flake, and Makeev.

DECISION

As such, we AFFIRM the Examiner's final rejection of claims 1–3

and 34–53 under 35 U.S.C. § 101. However, we REVERSE the Examiner's

final rejection of claims 1–3 and 34–53 under (1) 35 U.S.C. §§ 112(a) as

failing to comply with the written description requirement; (2) 35 U.S.C.

§§ 112(b) as being indefinite; (3) 35 U.S.C. §§ 102 and 103 as being

anticipated/obvious based on Serena and other prior art references.

Because we have affirmed at least one ground of rejection with

respect to each claim on appeal, the Examiner's decision is

affirmed. *See* 37 C.F.R. § 41.50(a)(1).

No time period for taking any subsequent action in connection with

this appeal may be extended under 37 C.F.R. § 1.136(a) (1)(iv).

AFFIRMED