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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte GANESH MANI

Appeal 2018-003515
Application 12/122,157
Technology Center 3600

Before JOHN A. JEFFERY, JUSTIN BUSCH, and
LINZY T. McCARTNEY, *Administrative Patent Judges*.

McCARTNEY, *Administrative Patent Judge*.

DECISION ON APPEAL

Appellant seeks review under 35 U.S.C. § 134 of the Examiner's final rejection of claims 2–5, 8, 9, and 11–13. We have jurisdiction under 35 U.S.C. § 6(b).

We affirm.

BACKGROUND

This patent application “generally relates to methods and systems for transferring authority between and among principals and agents for performing services.” Specification 1:14–16, filed May 16, 2008 (“Spec.”). Claim 5, the sole independent claim, illustrates the claimed subject matter:

5. A computer implemented method for a principal to electronically establish and use an agent, said method comprising the steps of:

- (a) said principal identifying a service requirement;
- (b) said principal interacting with a potential agent over a communication medium;
- (c) said principal submitting an electronic request for service;
- (d) electronically negotiating terms by the principal and the potential agent;
- (e) electronically generating (110, p. 13, 1. 5) a power of attorney document as part of the interaction between the principal and potential agent containing the terms negotiated in step (d);
- (f) the principal and the potential agent electronically signing said power of attorney document, wherein the potential agent becomes an agent including:
 - (i) electronically verifying said electronic signature;and
 - (ii) providing an electronic key that allows said agent to access selected information about said principal electronically;
- (g) performing said electronic verification by an asymmetric cryptosystem wherein:
 - (i) a first digital signature corresponding to the principal is generated;

- (ii) a second digital signature corresponding to the agent is generated; and
- (iii) a third digital signature corresponding to the agent as employed to act on behalf of the principal is generated;
- (h) said agent performing (114, p. 14, l. 8) said requested service;
- (i) providing an activity log;
- (j) providing to said activity log a time-stamped report of transactions;
- (k) said principal monitoring said time-stamped report of transactions; and
- (l) said principal paying said agent.

Response to Notification of Non-Compliant Appeal Brief 3, filed June 29, 2017 (“Claims App’x”).

REJECTIONS

Claims	Basis
2–5, 8, 9, and 11–13	§ 101
2–5, 8, 9, and 11–13	§ 112

DISCUSSION

We have reviewed the Examiner’s rejections and Appellant’s arguments. We disagree with Appellant that the Examiner erroneously rejected claims 2–5, 8, 9, and 11–13 under § 101. For this rejection, as consistent with the discussion below, we adopt the Examiner’s findings, conclusions, and reasoning in pages 3–6 of the Final Office Action mailed December 20, 2016 (“Final Act.”) and pages 3–9 of the Answer mailed December 19, 2017 (“Ans.”). But we agree with Appellant that the

Examiner erred in rejecting claims 2–5, 8, 9, and 11–13 under § 112. We address the § 101 and § 112 rejections in turn.

Section 101 Rejection

Section 101 of the Patent Act provides that “any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof” is patent eligible. 35 U.S.C. § 101. But the Supreme Court has long recognized an implicit exception to this section: “Laws of nature, natural phenomena, and abstract ideas are not patentable.” *Alice Corp. v. CLS Bank Int’l*, 573 U.S. 208, 216 (2014) (quoting *Ass’n for Molecular Pathology v. Myriad Genetics, Inc.*, 569 U.S. 576, 589 (2013)). To determine whether a claim falls within one of these excluded categories, the Court has set out a two-part framework. The framework requires us first to consider whether the claim is “directed to one of those patent-ineligible concepts.” *Alice*, 573 U.S. at 217. If so, we then examine “the elements of [the] claim both individually and ‘as an ordered combination’ to determine whether the additional elements ‘transform the nature of the claim’ into a patent-eligible application.” *Alice*, 573 U.S. at 217 (quoting *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 566 U.S. 66, 78, 79 (2012)). That is, we examine the claim for an “inventive concept,” “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*, 573 U.S. at 217–18 (alteration in original) (quoting *Mayo*, 566 U.S. at 72–73).

The Patent Office recently issued guidance about this framework. *See* 2019 Revised Patent Subject Matter Eligibility Guidance, 84 Fed. Reg. 50 (Jan. 7, 2019) (“Revised Guidance”). Under the Revised Guidance, to decide

whether a claim is directed to an abstract idea, we evaluate whether the claim (1) recites subject matter that falls within one of the abstract idea groupings listed in the Revised Guidance (“Prong One”) and (2) fails to integrate the recited abstract idea into a practical application (“Prong Two”). *See* Revised Guidance, 84 Fed. Reg. at 51. If the claim is directed to an abstract idea, as noted above, we then determine whether the claim has an inventive concept. The Revised Guidance explains that when making this determination, we should consider whether the additional claim elements add “a specific limitation or combination of limitations that are not well-understood, routine, conventional activity in the field” or “simply append[] well-understood, routine, conventional activities previously known to the industry, specified at a high level of generality.” Revised Guidance, 84 Fed. Reg. at 56.

With these principles in mind, we turn to the § 101 rejection.

Abstract Idea

The Examiner determined that claim 5 recites several abstract ideas that fall within the “certain methods of organizing human activity” abstract idea exception identified in the Revised Guidance. *See* Final Act. 3 (determining that claim 5 is drawn to the “abstract ideas of negotiating and executing a power of attorney, protecting privacy, recording transactions, and providing a service for a fee”); Revised Guidance, 84 Fed. Reg. at 52 (explaining that certain methods of organizing human activity include “fundamental economic principles or practices,” “commercial or legal interactions,” and “managing personal behavior or relationships or interactions between people”). For the reasons explained below, Appellant has not persuaded us that the Examiner erred.

Prong One

Claim 5 recites a “method for a principal to electronically establish and use an agent” that includes limitations (a)–(l) reproduced in full above. Appellant essentially concedes that limitations (a)–(e), (h), and (l) recite an abstract idea. *See* App. Br. 9 (“In this application, and based on present case law, obtaining a power of attorney is a fundamental economic practice.” (footnote omitted)), 10 (“Appellant notes that ‘negotiating and executing a power of attorney’ as a business practice includes selected portions of the steps identified as (a)–(e), (h) and (l) of [c]laim 5.”). We agree with Appellant that limitations (a)–(e), (h), and (l) recite an abstract idea, and we determine that limitations (f) and (i)–(k) also recite an abstract idea.

Limitations (a)–(e) recite a series of steps that lead to, or involve, electronically negotiating terms by the principal and the potential agent and electronically generating a power of attorney document that contains the negotiated terms. *See* Claims App’x 3. Electronically negotiating terms and electronically generating a power of attorney document that includes the negotiated terms are commercial and legal interactions that are not meaningfully different from other commercial and legal interactions that courts have determined are abstract ideas. *See, e.g., Alice*, 573 U.S. at 219 (determining that claims drawn to “the use of a third party to mitigate settlement risk” are directed to an abstract idea); *Elec. Power Grp., LLC v. Alstom S.A.*, 830 F.3d 1350, 1354 (Fed. Cir. 2016) (explaining that “in *Alice*, as in so many other § 101 cases, the abstract ideas being the creation and manipulation of legal obligations such as contracts involved in fundamental economic practices”); *buySAFE, Inc. v. Google, Inc.*, 765 F.3d 1350, 1355 (Fed. Cir. 2014) (concluding that claims “squarely about creating a

contractual relationship” are directed to an abstract idea). And as Appellant acknowledges, these steps recite a fundamental economic practice as well. *See* App. Br. 9, 10; *cf. Bilski v. Kappos*, 561 U.S. 593, 611 (2010) (determining that the concept of hedging is a fundamental economic practice).

For similar reasons, limitation (f) recites an abstract idea. Limitation (f) recites that the principal and the potential agent electronically sign the power of attorney document so that the potential agent becomes an agent. *See* Claims App’x 3. Electronically signing the power of attorney document is part of obtaining a power of attorney, and Appellant acknowledges that obtaining a power of attorney is a fundamental economic practice, *see* App. Br. 9, 10. That admission aside, like the acts recited in steps (a)–(e), electronically signing the power of attorney document is similar to other commercial and legal interactions that courts have determined are abstract ideas. *See, e.g., Alice*, 573 U.S. at 219; *buySAFE*, 765 F.3d at 1355.¹

As for limitations (h) and (l), these limitations recite the agent performing the requested service and the principle paying the agent. *See*

¹ Limitations (f)(i), (f)(ii), (g), and (g)(i)–(iii) specify what electronically signing the power of attorney document entails and thus also recite certain methods of organizing human activity. *See buySAFE*, 765 F.3d at 1355 (concluding that claims “squarely about creating a contractual relationship” are directed to an abstract idea); *Trading Techs. Int’l, Inc. v. IBG LLC*, No. 2017-2257, 2019 WL 1716242, at *6 (Fed. Cir. Apr. 18, 2019) (“The fact that the claims add a degree of particularity as to how an order is placed in this case does not impact our analysis at step one.”); App. Br. 9 (acknowledging that “obtaining a power of attorney is a fundamental economic practice”). But because the Examiner treated these limitations as additional elements, we address these limitations below.

Claims App'x 3. An agent performing a service and the principle paying the agent together comprise “a fundamental economic practice long prevalent in our system of commerce.” *Alice*, 573 U.S. at 219 (quoting *Bilski*, 561 U.S. at 611).

Although Appellant effectively concedes that limitations (a)–(e), (h), and (l) recite an abstract idea, Appellant suggests that limitations (i)–(k)² do not. *See* App. Br. 10–11. We disagree. Limitations (i)–(k) recite providing an activity log, providing a time-stamped report of transactions to the activity log, and monitoring (by the principal) the time-stamped report of transactions. *See* Claims App'x 3. Neither claim 5 nor the written description places any meaningful limits on how these steps are performed or what makes up an activity log. *See* Claims App'x 3 (claim 5); Spec. 15:1–14 (discussing monitoring and activity logs). These steps thus encompass, for example, a lawyer creating paper records detailing the work the lawyer performed on a client's behalf and when the lawyer performed the work, and the client periodically reviewing those records. This type of longstanding, common business practice falls comfortably within the certain methods of organizing human activity exception. *Cf. Intellectual Ventures I LLC v. Symantec Corp.*, 838 F.3d 1307, 1318 (Fed. Cir. 2016) (describing the screening of messages by a “corporate organization” as a method of organizing human activity); *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1335 (Fed. Cir. 2016) (“For instance, fundamental economic and

² Throughout the Appeal Brief, Appellant refers to limitations (j)–(l) but quotes language that appears in limitations (i)–(k). *Compare* App. Br. 10, 11, *with* Claims App'x 3. We focus our discussion on the limitations that include the language quoted by Appellant.

conventional business practices are often found to be abstract ideas, even if performed on a computer.”).³

In sum, for the reasons discussed above, limitations (a)–(f) and (h)–(l) recite acts that fall within the certain methods of organizing human activity exception identified in the Revised Guidance. *See* Revised Guidance, 84 Fed. Reg. at 52 (explaining that certain methods of organizing human activity include “fundamental economic principles or practices,” “commercial or legal interactions,” and “managing personal behavior or relationships or interactions between people”). We thus determine that claim 5 recites an abstract idea.

Prong Two

Because we conclude that claim 5 recites an abstract idea, we next evaluate whether claim 5 integrates the idea into a practical application. *See* Revised Guidance, 84 Fed. Reg. at 51. In doing so, we consider whether there are any additional elements beyond the abstract idea that, individually or in combination, “integrate the [abstract idea] into a practical application, using one or more of the considerations laid out by the Supreme Court and the Federal Circuit.” Revised Guidance, 84 Fed. Reg. at 54–55.

The Examiner determined that limitations (f)(i), (f)(ii), (g), and (g)(i)–(g)(iii) recite additional elements. *See* Final Act. 3–4. Limitations (f)(i) and

³ Because limitations (i)–(k) encompass acts that people can perform in their minds or using pen and paper, these limitations also recite mental processes, another of the abstract idea groupings listed in the Revised Guidance. *See* Revised Guidance, 84 Fed. Reg. at 52; *see also CyberSource Corp. v. Retail Decisions, Inc.*, 654 F.3d 1366, 1372 (Fed. Cir. 2011) (determining that a claim recited an abstract idea when the claimed steps “can be performed in the human mind, or by a human using a pen and paper”).

(f)(ii) respectively recite electronically verifying the electronic signature and providing an electronic key that allows the agent to electronically access selected information about the principal. *See* Claims App'x 3. Limitations (g) and (g)(i)–(g)(iii) recite using an asymmetric cryptosystem to perform the electronic verification, including generating three different digital signatures. *See* Claims App'x 3.

Considered individually or as a combination, these additional elements merely use known electronic means to perform an abstract idea. The written description discloses that “[t]he power of attorney document can be ‘signed’ by a conventional means such as . . . a digital signature.” Spec. 13:13–15. The written description also discloses that “[a] system known for implementing digital signatures is an asymmetric cryptosystem.” Spec. 13:22–23. The written description describes this known system as “[a] system which generates and employs a secure key pair, which includes a private key for creating a digital signature and a public key to verify a digital signature.” Spec. 13:23–25.

These statements are consistent with the other evidence of record. For example, Appellant provided a copy of the American Bar Association’s 1996 Digital Signature Guidelines as an exhibit to the Appeal Brief.⁴ The Digital Signature Guidelines indicate that using asymmetric cryptosystems to verify electronic signatures, providing electronic keys to others, and generating digital signatures are conventional activities. *See, e.g.*, Ex. 1 at 9–15 (explaining how digital signatures work and noting that using digital

⁴ *Digital Signature Guidelines: Legal Infrastructure for Certification Authorities and Secure Electronic Commerce*, 1996 A.B.A. Info. Security Committee 1. App. Br., Evidence Appendix, Exhibit 1 (“Ex. 1”).

signatures involves digital signature creation and verification), 14 & n.29 (explaining that “[t]he processes used for digital signatures have undergone thorough technological peer review for over a decade” and that “[d]igital signatures have been accepted in several national and international standards developed in cooperation with and accepted by many corporations, banks, and government agencies”), 30–31 (describing a commercial key escrow service that holds subscribers’ private keys and “other pertinent information” under an escrow agreement and a similar private trust key service), 32–33 (defining and explaining the term “asymmetric cryptosystem”). Similarly, the portions of *Applied Cryptography*⁵ cited by the Examiner also suggest that digital signatures and electronic keys are conventional. *See, e.g.*, *Applied Cryptography* 34–44 (describing digital signatures), 577–84 (describing asymmetric key management and a privacy application using electronic keys).

Given this evidence, the additional elements recited in limitations (f)(i), (f)(ii), (g), and (g)(i)–(g)(iii)—considered alone or in combination—simply employ known electronic means to implement an abstract idea. We thus determine that claim 1 does not integrate the recited abstract ideas into a practical application. *See Alice*, 573 U.S. at 223–24 (“[W]holly 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.’” (quoting *Mayo*, 566 U.S. at 77)).

⁵ Bruce Schneier, *Applied Cryptography* (2nd ed. 1996) (“Applied Cryptography”).

Inventive Concept

Finally, we consider whether claim 5 has an “inventive concept.” That is, we examine “the elements of [the] claim both individually and ‘as an ordered combination’ to determine whether the additional elements ‘transform the nature of the claim’ into a patent-eligible application.” *Alice*, 573 U.S. at 217 (quoting *Mayo*, 566 U.S. at 78, 79). Under the Revised Guidance, we evaluate whether the additional claim elements add “a specific limitation or combination of limitations that are not well-understood, routine, conventional activity in the field” or “simply append[] well-understood, routine, conventional activities previously known to the industry, specified at a high level of generality.” Revised Guidance, 84 Fed. Reg. at 56.

The Examiner determined that the additional elements recited in claim 5 do not provide the necessary inventive concept. *See* Final Act. 3–4. The Examiner explained that these elements involve, among other things, generic or routine computer technology and well-understood, routine, and conventional activities. *See* Final Act 3–4.

Appellant attacks these determinations on several grounds. First, Appellant contends the Examiner should have construed the claims before determining whether the claims are patent eligible. *See* App. Br. 10, 11. But claim construction does not have to precede a § 101 analysis. *See, e.g., Genetic Techs. Ltd. v. Merial L.L.C.*, 818 F.3d 1369, 1374 (Fed. Cir. 2016) (“In many cases . . . evaluation of a patent claim’s subject matter eligibility under § 101 can proceed even before a formal claim construction.”). And Appellant has not explicitly construed the claims, let alone persuasively explained why the claims would be patent eligible under a particular claim

construction. Under these circumstances, we see no error in the Examiner’s decision to address patent eligibility before explicitly construing the claims. *See Cyberfone Sys., LLC v. CNN Interactive Grp., Inc.*, 558 F. App’x 988, 991 n.1 (Fed. Cir. 2014) (rejecting appellant’s argument “that claim construction must precede the § 101 analysis” when appellant pointed to the claim language at issue but did “not explain which terms require construction or how the analysis would change”).

Second, Appellant argues the Examiner improperly “condensed” limitations (i)–(k), and in doing so not only failed “to address non-traditional and non-conventional aspects of the claim” but also failed to address “the actual claim recitations.” App. Br. 10; *see also* App. Br. 11–12, 13–14; Reply Brief 4, filed February 19, 2018 (“Reply Br.”).

We find Appellant’s arguments unpersuasive. The Examiner characterized limitations (i)–(k) (“providing an activity log,” “providing to said activity log a time-stamped report of transactions,” and “said principal monitoring said time-stamped report of transactions”) as “recording and monitoring transactions” and determined that the limitations involve concepts similar to concepts that courts have determined are abstract ideas. *See* Final Act. 3. We see no error in the Examiner’s characterization or analysis of these limitations. One can often characterize claim limitations in different ways without affecting the eligibility analysis. *Cf. Apple, Inc. v. Ameranth, Inc.*, 842 F.3d 1229, 1240–41 (Fed. Cir. 2016) (explaining that “[a]n abstract idea can generally be described at different levels of abstraction” and determining that “[t]he Board’s slight revision of its abstract idea analysis does not impact the patentability analysis.”). That is true here. Whether one reproduces these limitations in full or characterizes

them as the Examiner did, the result is the same—the limitations recite abstract ideas.

As for Appellant’s contention that the Examiner failed to address the “non-traditional and non-conventional aspects” of these limitations, there were no such aspects to address. As explained above, these limitations are broad enough to encompass conventional activity such as a lawyer creating paper records detailing the work the lawyer performed on a client’s behalf and when the lawyer performed the work, and the client periodically reviewing those records. As also explained above, these limitations recite certain methods of organizing human activity and mental processes. Therefore, even if these limitations were novel, the limitations would not make claim 5 patent eligible. “[A] claim for a *new* abstract idea is still an abstract idea.” *Synopsys, Inc. v. Mentor Graphics Corp.*, 839 F.3d 1138, 1151 (Fed. Cir. 2016).

Finally, Appellant’s contention that the Examiner failed to address “the actual claim recitations” because the Examiner condensed the limitations is equally unavailing. To begin, Appellant has provided no persuasive evidence to support this argument. *See, e.g.*, App. Br. 10–11. And even if Appellant had shown that the Examiner failed to address one of the limitations at issue, the outcome would not change because none of these limitations provides an inventive concept.

Third, Appellant argues that the Examiner’s determinations about limitations (f)(i) and (f)(ii) are “wholly unsupported.” App. Br. 12. For limitation (f)(i), Appellant contends that the Examiner has not shown that verifying an electronic signature is equivalent to “comparing a wet signature with a known good signature” and asserts that these signatures are verified

differently. App. Br. 12. Concerning limitation (f)(ii), Appellant contends that the Examiner has provided no support for the statement that providing the recited electronic key “represent[s] straight forward electronic implementations of fundamental economic practices.” App. Br. 12 (alteration in original). And for both limitations (f)(i) and (f)(ii), Appellant contends the Examiner has not shown that these limitations were well-understood, routine, and conventional. App. Br. 12.

We disagree. Beginning with limitation (f)(i), this limitation recites “electronically verifying said electronic signature.” Claims App’x 3. We do not understand the Examiner to have determined that people verify electronic and written signatures in the same *ways*; we understand the Examiner to have determined that people verify electronic and written signatures for the same *reasons*—presumably to establish identity or authenticity. *See* Final Act. 4. Because people verify the signatures for the same reasons, the Examiner appears to have determined that electronic signatures and written signatures are “equivalent” in this respect. *See* Final Act. 4. So although Appellant identifies a potential difference in how these signatures are verified, *see* App. Br. 12, this difference does not show the Examiner erred.

The Examiner’s determination for limitation (f)(i) has adequate support in the record. The Digital Signature Guidelines explain that “digital signature technology can be applied as a robust *computer-based alternative to traditional signatures*.” Ex. 1 at 4 (emphasis added). Applied Cryptography similarly suggests that digital signatures are an alternative to written signatures. *See, e.g.*, Applied Cryptography 34–36 (contrasting paper and digital signatures). And the Digital Signature Guidelines explain that the

U.S. Comptroller General’s rationale for accepting digital signatures in government contracts was in part that, like written signatures, digital signatures can be verified. Ex. 1 at 7 n.12 (“The electronic symbol . . . embodied all of the attributes of a valid, acceptable signature: it was unique to the certifying author, *capable of verification*, and under his sole control such that one might presume from its use that the certifying officer . . . intended to be bound.” (emphasis added)). Indeed, the Digital Signature Guidelines disclose that a digital signature “generally surpasses” written signatures in several respects, including signature verification processes and signer authentication. *See* Ex. 1 at 7–9; *see also* Ex. 1 at 14 (contrasting digital and written verification processes).

Finally, both the written description and the Digital Signature Guidelines make clear that electronically verifying an electronic signature is a well-understood, routine, and conventional activity. *See, e.g.*, Spec.13:22–25 (explaining that asymmetric cryptosystems were known and that these systems use a public key to verify a digital signature); Ex. 1 at 9–15 (explaining how digital signatures work and noting that using digital signatures involves digital signature creation and verification), 32–33 (explaining that an asymmetric cryptosystem employs a public key to verify a digital signature).

Turning to limitation (f)(ii), this limitation recites “providing an electronic key that allows said agent to access selected information about said principal electronically.” Claims App’x 3. Nothing in the written description suggests that providing the recited electronic key involves anything but well-understood, routine, and conventional activity. Given the broad wording of this limitation, the limitation encompasses an agent

obtaining a principal's public key and using the key to decrypt a document that contains the principal's information. Using public keys in this manner is a well-understood, routine, and conventional activity. *Cf.* Applied Cryptography 37 (describing an exemplary public-key cryptography protocol), 41 (same).

In any event, a principal-agent relationship routinely involves a principal providing an agent access to the principal's information. *Cf.* Restatement (First) of Agency § 395 (discussing an agent's duties regarding a principal's confidential information). And the record before us indicates that electronic keys (for example, public and private keys) are conventional and that principals routinely give their electronic keys to others. *See, e.g.,* Spec. 13:22–25 (explaining that known asymmetric cryptosystems use public and private keys); Applied Cryptography 37–44 (discussing public and private keys); Ex. 1 at 30–31 (describing a commercial key escrow service that holds subscribers' private keys and "other pertinent information" and a similar private trust key service). Providing an electronic key that allows an agent to electronically access information about a principal simply employs conventional electronic means to provide access to information that principals routinely provide their agents. This is not enough to make claim 5 patent eligible. *Cf. Apple*, 842 F.3d at 1242 (affirming the Board's determination that the claim elements at issue did not transform the abstract idea into a patent-eligible application of the idea when "[t]he patents can readily be understood as adding conventional computer components to well-known business practices"); *see also* Spec. 1:19–21 (explaining that the "present invention . . . relates to business processes for delegating performance of services to agents based on a principal's preferences and

constraints”). We thus see no error in the Examiner’s determination for limitation (f)(ii).

Fourth, Appellant contends that limitation (g)(iii) (“a third digital signature corresponding to the agent as employed to act on behalf of the principal is generated”) is not well-understood, routine, and conventional. *See* App. Br. 13. But here too, nothing in the written description indicates that this limitation involves anything but well-understood, routine, and conventional activity. The third digital signature recited in limitation (g)(iii) simply uses conventional electronic means to replace a traditional written signature that indicates that an agent acts on a principal’s behalf. *See, e.g.*, Ex. 1 at 14 & n.29 (explaining that “[t]he processes used for digital signatures have undergone thorough technological peer review for over a decade” and that “[d]igital signatures have been accepted in several national and international standards developed in cooperation with and accepted by many corporations, banks, and government agencies”); Restatement (Second) of Agency § 156 (describing signatures that indicate that a principal is a party to a written instrument such as a signature with the principal’s and agent’s names separated by phrases such as “agent of,” “agent for,” “on behalf of,” “for,” or “as agent of”). This also is not enough to provide an inventive concept. *Cf. Apple*, 842 F.3d at 1242.

Fifth, Appellant contends that claim 5 does not “claim the entire field relating to the establishment of a Power of Attorney.” App. Br. 13. Even if this is true, failing to preempt all of a particular field does not make claim 5 any less abstract. *See, e.g., OIP Techs., Inc. v. Amazon.com, Inc.*, 788 F.3d 1359, 1362–63 (Fed. Cir. 2015) (“And that the claims do not preempt all price optimization or may be limited to price optimization in the e-

commerce setting do[es] not make them any less abstract.”); *Ariosa Diagnostics, Inc. v. Sequenom, Inc.*, 788 F.3d 1371, 1379 (Fed. Cir. 2015) (“While preemption may signal patent ineligible subject matter, the absence of complete preemption does not demonstrate patent eligibility.”).

Sixth, Appellant argues that claim 5 is similar to the claims the Federal Circuit determined were patent eligible in *DDR Holdings, LLC v. Hotels.com, L.P.*, 773 F.3d 1245 (Fed. Cir. 2014). *See* App. Br. 14. But in *DDR Holdings*, the claims at issue specified “how interactions with the Internet are manipulated to yield a desired result—a result that overrides the routine and conventional sequence of events ordinarily triggered by the click of a hyperlink.” *DDR Holdings*, 773 F.3d at 1258. Here, contrary to Appellant’s arguments, claim 5 does not similarly override a routine and conventional sequence of events. The record before us indicates that the additional elements recited in claim 5 are conventional and operate in the expected fashion. *See, e.g.*, Spec. 13:4–19, 15:1–14; Ex. 1 at 4, 9–15, 30–33; Applied Cryptography 34–44, 577–84.

Seventh, Appellant contends that the Examiner improperly failed to individually address the dependent claims. *See* App. Br. 14–15; Reply Br. 1–4. We disagree. The Examiner found claim 5 representative of dependent claims 2–4, 8, 9, and 11–13 and rejected these claims under § 101 for the same reasons that the Examiner rejected claim 5. *See* Final Act. 3–4. Appellant has not argued, much less shown, that anything in the dependent claims renders the claims patent eligible. We therefore see no error in this approach. *Cf. Content Extraction & Transmission LLC v. Wells Fargo Bank, Nat. Ass’n*, 776 F.3d 1343, 1348 (Fed. Cir. 2014) (agreeing with a district court that addressing each claim of the asserted patents was unnecessary

when the claims “recite little more than the same abstract idea” and certain claims were representative).

Eighth, Appellant argues for the first time in the Reply Brief that the Examiner’s rejection is so confusing that is impossible for Appellant to understand the rejection. *See* Reply Br. 2–4. Appellant forfeited this argument by failing to present it in the Appeal Brief. *See* 37 C.F.R. §§ 41.37(c)(1)(iv) (explaining that, with exceptions inapplicable here, “any arguments or authorities not included in the appeal brief will be refused consideration by the Board for purposes of the present appeal”), 41.41(b)(2) (explaining that “[a]ny argument raised in the reply brief which was not raised in the appeal brief, or is not responsive to an argument raised in the examiner’s answer . . . will not be considered by the Board for purposes of the present appeal, unless good cause is shown”). Even if Appellant had timely raised this argument, we would have found it unpersuasive. We disagree that the Examiner’s rejection is so confusing that it is impossible to understand. As evidenced by the arguments in the Appeal Brief, the Examiner’s rejection was clear enough that Appellant could respond to the findings and conclusions in the rejection.

In sum, considered separately or together, the additional elements recited in claim 5 “simply append[] well-understood, routine, conventional activities previously known to the industry, specified at a high level of generality.” Revised Guidance, 84 Fed. Reg. at 56. This is true even if we were to consider every electronic aspect of the claim as an additional element. We therefore determine that claim 5 does not recite an inventive concept.

Conclusion

We have considered Appellant’s remaining arguments and found them unpersuasive. For the above reasons, Appellant has not persuaded us the Examiner erroneously rejected claim 5 under § 101. We thus sustain the Examiner’s rejection of claim 5 on this ground. Because Appellant has not presented separate, persuasive arguments for claims 2–4, 8, 9, and 11–13, we also sustain the Examiner’s rejection of these claims under § 101.

Section 112 Rejection

Claim 5 recites “electronically negotiating terms by the principal and the potential agent.” Claims App’x 3. The Examiner rejected claim 5 and its dependent claims as indefinite under § 112 because “[i]t is unclear whether this step is performed by the principal alone or by both the principal and the agent.” Final Act. 5. The Examiner also determined that “[i]t is further unclear what range of activities is required by this” limitation given the description of a negotiation session at page 12, lines 3–18 of the written description and other limitations recited in claim 5. Final Act. 5.⁶

In response, Appellant contends that one of ordinary skill in the art would understand that the word “negotiating” involves two or more parties. *See App. Br. 15*. Appellant also argues that claim 5 is sufficiently clear when considered with the part of the written description cited by the Examiner. *See App. Br. 16*.

We agree with Appellant. As argued by Appellant, one of ordinary skill in the art would understand that “negotiating” requires at least two

⁶ The Examiner’s rejection quotes paragraph 53 of the published patent application, which corresponds to page 12, lines 3–18 of the application as filed.

parties. *See* App. Br. 15. As for page 12, lines 3–18 of the written description, we see nothing in this part of the written description, considered by itself or in light of the other limitations recited in claim 5, the renders claim 5 indefinite. We thus do not sustain the Examiner’s rejection of claims 2–5, 8, 9, and 11–13 under § 112.

CONCLUSION

Claims Rejected	Basis	Affirmed	Reversed
2–5, 8, 9, and 11–13	§ 101	2–5, 8, 9, and 11–13	
2–5, 8, 9, and 11–13	§ 112		2–5, 8, 9, and 11–13
Outcome		2–5, 8, 9, and 11–13	

Because we affirm at least one ground of rejection for each claim on appeal, we affirm the Examiner’s decision. *See* 37 C.F.R. § 41.50(a)(1). No 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