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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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*Ex parte* JOE YUEN TOM, JEREMY ISAAC NATHANIEL WERNER,  
and RUSSELL BARCK

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Appeal 2018-004278  
Application 11/616,385  
Technology Center 3600

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Before JOHN A. EVANS, JAMES W. DEJMEK, and  
MATTHEW J. McNEILL, *Administrative Patent Judges*.

Opinion for the Board filed by *Administrative Patent Judge*,  
JOHN A. EVANS.

Opinion concurring filed by *Administrative Patent Judge*,  
JAMES W. DEJMEK.

EVANS, *Administrative Patent Judge*.

DECISION ON APPEAL

Appellants<sup>1</sup> seek our review under 35 U.S.C. § 134(a) of the  
Examiner's final rejection of Claims 1, 2, 4, 7–10, 12–19, 21, and 23–25, all

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<sup>1</sup> Appellants state the real party in interest is Cypress Semiconductor Corporation. Appeal Br. 3.

pending claims. Final Act. 2–5. We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM.<sup>2</sup>

#### STATEMENT OF THE CASE

The claims relate to a method of facilitating the management of digital content between parties in a local environment. *See* Abstract.

#### *Invention*

Claims 1, 12, and 25 are independent. An understanding of the invention can be derived from a reading of Claim 12, which is reproduced below.

12. A method for facilitating transfer of digital content and rights from a first device to a second device, the method comprising:

mutually authenticating the first device and the second device;

creating, by the first device, a rights object of usage rights associated with digital content stored in memory of the first device;

encrypting, by the first device, the digital content and the usage rights prior to transferring the digital content and the usage rights to the second device;

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<sup>2</sup> Rather than reiterate the arguments of Appellants and the Examiner, we refer to the Appeal Brief (filed September 28, 2017, “Appeal Br.”), the Examiner’s Answer (mailed January 25, 2018, “Ans.”), the Final Action (mailed May 19, 2017, “Final Act.”), and the Specification (filed December 27, 2006, “Spec.”) for their respective details.

transferring the digital content and the rights object of usage rights from the first device to the second device via a wired or a wireless communication connection between the first device and the second device, wherein the second device is remote from the first device, wherein one of the usage rights of the rights object specifies when the digital content is to be automatically deleted from a second memory of the second device;

receiving, by the first device, a first signature from the second device to verify that the rights object and the usage rights transferred to the second device are intact;

upon verification of the first signature, transferring a decryption key to the second device to permit the second device to decrypt the digital content and the rights attachment encrypted by the first device;

controlling use of the digital content at the second device in accordance with the usage right; and

receiving, at the first device, a second signature associated with the digital content from the second device, wherein the second signature notifies the first device that the digital content has been deleted from the second memory of the second device by the second device, and wherein the signature is automatically generated by the second device after the second device deletes the digital content from the second memory.

*Rejection<sup>3</sup>*

Claims 1, 2, 4, 7–10, 12–19, 21, and 23–25 stand rejected under 35 U.S.C. § 101 as directed to non-statutory subject matter without significantly more. Final Act. 2–5.

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<sup>3</sup> The present Application is being examined under the pre-AIA first to invent provisions.

## ANALYSIS

CLAIMS 1, 2, 4, 7–10, 12–19, 21, AND 23–25:

INELIGIBLE SUBJECT MATTER.

We have reviewed the rejections of Claims 1, 2, 4, 7–10, 12–19, 21, and 23–25 in light of Appellants’ arguments. We have considered in this decision only those arguments Appellants actually raised in the Briefs. Any other arguments which Appellants could have made but chose not to make in the Briefs are deemed to be waived. *See* 37 C.F.R. § 41.37(c)(1)(iv) (2017). We adopt as our own the findings and reasons set forth in the rejection from which this appeal is taken and in the Examiner’s Answer, to the extent consistent with our analysis below. We provide the following explanation to highlight and address specific arguments and findings primarily for emphasis. We consider Appellants’ arguments *seriatim*, as they are presented in the Brief. *See* Appeal Br. 7–24.

Based upon our *de novo* review of the record in light of recent Director Policy Guidance<sup>4</sup> with respect to patent-eligible subject matter rejections under 35 U.S.C. § 101, we sustain the rejection of 1, 2, 4, 7–10, 12–19, 21, and 23–25. “Whether a claim is drawn to patent-eligible subject matter is an issue of law that we review *de novo*.” *SiRF Tech., Inc. v. Int’l Trade Comm’n*, 601 F.3d 1319, 1331 (Fed. Cir. 2010).

Appellants’ arguments are principally presented with reference to independent Claims 1, 12, and 25. *See* Appeal Br. 7–24. Therefore, we

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<sup>4</sup> USPTO, *2019 Revised Patent Subject Matter Eligibility Guidance*, 84(4) Fed. Reg. 50–57 (January 7, 2019) (“Revised Guidance”).

decide the appeal of the § 101 rejections with reference to Claims 1, 12, and 25, and refer to the rejected claims collectively herein as “the claims.” See 37 C.F.R. § 41.37(c)(1)(iv); *In re King*, 801 F.2d 1324, 1325 (Fed. Cir. 1986).

## PRINCIPLES OF LAW

### A. 35 U.S.C. § 101

An invention is patent-eligible if it claims a “new and useful process, machine, manufacture, or composition of matter.” 35 U.S.C. § 101.<sup>5</sup> However, the Supreme Court has long interpreted 35 U.S.C. § 101 to include implicit exceptions: “[l]aws of nature, natural phenomena, and abstract ideas” are not patentable. *Mayo Collaborative Services v. Prometheus Labs., Inc.*, 566 U.S. 66, 70 (2012) (citing *Diamond v. Diehr*, 450 U.S. 175, 185 (1981)).

In determining whether a claim falls within an excluded category, we are guided by the Supreme Court’s two-step framework, described in *Mayo* and *Alice*. *Alice Corp. v. CLS Bank Int’l*, 573 U.S. 208, 217–18 (2014) (citing *Mayo*, 566 U.S. at 75–77). In accordance with that framework, we first determine what concept the claim is “directed to.” See *Alice*, 573 U.S. at 219 (“On their face, the claims before us are drawn to the concept of intermediated settlement, *i.e.*, the use of a third party to mitigate settlement

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<sup>5</sup> This threshold analysis of whether a claim is directed to one of the four statutory categories of invention, *i.e.*, a process, machine, manufacture, or composition of matter, is referred to as “*Step 1*” in the patent-eligibility inquiry under 35 U.S.C. § 101.

risk.”); *see also Bilski v. Kappos*, 561 U.S. 593, 611 (2010) (“Claims 1 and 4 in petitioners’ application explain the basic concept of hedging, or protecting against risk.”).

Concepts determined to be abstract ideas, and thus patent ineligible, include certain methods of organizing human activity, such as fundamental economic practices (*Alice*, 573 U.S. at 219–20; *see also Bilski*, 561 U.S. at 611); mathematical formulas (*Parker v. Flook*, 437 U.S. 584, 594–95 (1978)); and mental processes (*Gottschalk v. Benson*, 409 U.S. 63, 69 (1972)). Concepts determined to be patent eligible include physical and chemical processes, such as “molding rubber products” (*Diehr*, 450 U.S. at 191); “tanning, dyeing, making water-proof cloth, vulcanizing India rubber, smelting ores” (*id.* at 182 n.7 (quoting *Corning v. Burden*, 56 U.S. (15 How.) 252, 267–68 (1854))); and manufacturing flour (*Benson*, 409 U.S. at 69 (citing *Cochrane v. Deener*, 94 U.S. 780, 785 (1876))).

In *Diehr*, the claim at issue recited a mathematical formula, but the Supreme Court held “a claim drawn to subject matter otherwise statutory does not become nonstatutory simply because it uses a mathematical formula.” *Diehr*, 450 U.S. at 187, 191 (“We view respondents’ claims as nothing more than a process for molding rubber products and not as an attempt to patent a mathematical formula.”). Having said that, the Supreme Court also indicated that a claim “seeking patent protection for that formula in the abstract . . . is not accorded the protection of our patent laws, and this principle cannot be circumvented by attempting to limit the use of the formula to a particular technological environment.” *Id.* at 191 (citing *Benson* and *Flook*), 187 (“It is now commonplace that an *application* of a

law of nature or mathematical formula to a known structure or process may well be deserving of patent protection.”).

Abstract ideas may include, but are not limited to, fundamental economic practices, methods of organizing human activities, and mathematical formulas or relationships. *Alice*, 573 U.S. at 217–21. Under this guidance, we must therefore ensure at step one that we articulate what the claims are directed to with enough specificity to ensure the step one inquiry is meaningful. *Id.* at 217 (“[W]e tread carefully in construing this exclusionary principle lest it swallow all of patent law.”).

If the claim is “directed to” an abstract idea, we turn to the second step of the *Alice* and *Mayo* framework, where “we must examine the elements of the claim to determine whether it contains an “‘inventive concept’” “sufficient to ‘transform’ the claimed abstract idea into a patent-eligible application.” *Alice*, 573 U.S. at 221 (citation omitted). “A claim that recites an abstract idea must include ‘additional features’ to ensure ‘that the [claim] is more than a drafting effort designed to monopolize the [abstract idea].’” *Id.* (quoting *Mayo*, 566 U.S. at 77). “[M]erely requir[ing] generic computer implementation[] fail[s] to transform that abstract idea into a patent-eligible invention.” *Id.*

B. USPTO Revised Guidance<sup>6</sup>

The PTO recently published revised guidance in the Federal Register

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<sup>6</sup> 2019 Revised Patent Subject Matter Eligibility Guidance, 84 Fed. Reg. 50 (January 7, 2019) (hereinafter “Revised Guidance,” or “Rev. Guid.”) (<https://www.govinfo.gov/content/pkg/FR-2019-01-07/pdf/2018-28282.pdf>).

concerning the application of § 101.

Under the Revised Guidance, we first look to whether the claim recites:

(1) any judicial exceptions, including certain groupings of abstract ideas (i.e., mathematical concepts, certain methods of organizing human activity such as a fundamental economic practice, or mental processes);<sup>7</sup> and

(2) additional elements that integrate the judicial exception into a practical application (*see* Manual for Patent Examining Procedure (“MPEP”) § 2106.05(a)–(c), (e)–(h)).<sup>8</sup>

Only if a claim (1) recites a judicial exception and (2) does not integrate that exception into a practical application, do we then look to whether the claim:

(3) adds a specific limitation beyond the judicial exception that are not “well-understood, routine, conventional” in the field (*see* MPEP § 2106.05(d)); or

(4) simply appends well-understood, routine, conventional activities previously known to the industry, specified at a high level of generality, to the judicial exception.<sup>9</sup>

*See* Revised Guidance.

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<sup>7</sup> Referred to as “*Revised Step 2A, Prong 1*” in the Revised Guidance (hereinafter “*Step 2A(i)*”).

<sup>8</sup> Referred to as “*Revised Step 2A, Prong 2*” in the Revised Guidance (hereinafter “*Step 2A(ii)*”).

<sup>9</sup> Items (3) and (4) continue to be collectively referred to as “*Step 2B*” of the Supreme Court’s two-step framework, described in *Mayo* and *Alice*.

*Step 2A(i): Does the Claim Recite a Judicial Exception?*

Informed by our judicial precedent, the Revised Guidance extracts and synthesizes key concepts identified by the courts as abstract ideas to explain that the abstract idea exception includes the following groupings of subject matter, when recited as such in a claim limitation:

(a) Mathematical concepts—mathematical relationships, mathematical formulas or equations, mathematical calculations;

(b) Certain methods of organizing human activity — fundamental economic principles or practices (including hedging, insurance, mitigating risk); commercial or legal interactions (including agreements in the form of contracts; legal obligations; advertising, marketing or sales activities or behaviors; business relations); managing personal behavior or relationships or interactions between people (including social activities, teaching, and following rules or instructions); and

(c) Mental processes—concepts performed in the human mind (including an observation, evaluation, judgment, opinion).

Under the Revised Guidance, if the claim does not recite a judicial exception (a law of nature, natural phenomenon, or subject matter within the enumerated groupings of abstract ideas above), then the claim is patent-eligible at *Step 2A(i)*. This determination concludes the eligibility analysis, except in rare situations identified in the Revised Guidance.<sup>10</sup>

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<sup>10</sup> In the rare circumstance in which an Examiner believes a claim limitation that does not fall within the enumerated groupings of abstract ideas should nonetheless be treated as reciting an abstract idea, the procedure described in of the Guidance for analyzing the claim should be followed. *See* Guidance,

The preamble to Claim 12 recites: “A method for facilitating transfer of digital content and rights from a first device to a second device, the method comprising” and further recites the following limitations are set forth in Table I below. The Table applies the further limitations of Claim 12 to the category of abstract idea as set forth in the Revised Guidance.

<b>Claim 1</b>	<b>Revised Guidance</b>
[a] <sup>11</sup> mutually authenticating the first device and the second device;	Mental processes: concepts performed in the human mind (including an observation, evaluation, judgment, opinion). Rev. Guid. 52.
[b] creating, by the first device, a rights object of usage rights associated with digital content stored in memory of the first device;	Mental processes: concepts performed in the human mind (including an observation, evaluation, judgment, opinion). Rev. Guid. 52.
[c] encrypting, by the first device, the digital content and the usage rights prior to transferring the digital content and the usage rights to the second device;	Mental processes: concepts performed in the human mind (including an observation, evaluation, judgment, opinion). Rev. Guid. 52.
[d] transferring the digital content and the rights object of usage rights from the first device to the second device via a wired or a wireless communication connection between the first device and the second device, wherein the second device is	Additional element adds insignificant extra-solution activity to the judicial exception. Rev. Guid. 55, n.31.

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Section III.C.

<sup>11</sup> Step designators, e.g., “[a]” were added to facilitate discussion.

<p>remote from the first device, wherein one of the usage rights of the rights object specifies when the digital content is to be automatically deleted from a second memory of the second device;</p>	
<p>[e] receiving, by the first device, a first signature from the second device to verify that the rights object and the usage rights transferred to the second device are intact;</p>	<p>Additional element adds insignificant extra-solution activity to the judicial exception. Rev. Guid. 55, n.31.</p>
<p>[f] upon verification of the first signature, transferring a decryption key to the second device to permit the second device to decrypt the digital content and the rights attachment encrypted by the first device;</p>	<p>Method of organizing human activity. <i>See buySAFE</i><sup>12</sup> (holding that concept of “creating a contractual relationship—a ‘transaction performance guaranty’” is an abstract idea). Rev. Guid. 52, n.13.</p>
<p>[g] controlling use of the digital content at the second device in accordance with the usage right; and</p>	<p>An additional element merely includes instructions to implement an abstract idea on a computer. Rev. Guid. 55, n.30.</p>
<p>[h] receiving, at the first device, a second signature associated with the digital content from the second device, wherein the second signature notifies the first device that the digital content has been deleted from the second memory of the second device by the second device, and wherein the signature is automatically generated by the</p>	<p>Method of organizing human activity. <i>See buySAFE</i>.</p>

<sup>12</sup> *buySAFE, Inc. v. Google, Inc.*, 765 F.3d. 1350, 1355 (Fed. Cir. 2014).

second device after the second device deletes the digital content from the second memory.	
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Limitations [a]–[c] recite abstract ideas within the “mental process” category of the Revised Guidance. Limitations [f] and [h] recite abstract ideas within the “method of organizing human activity” category of the Revised Guidance.<sup>13</sup> The Examiner finds “the claims are directed towards

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<sup>13</sup> Limitation [c] recites, *inter alia*, “encrypting, by the first device, the digital content and the usage rights.” The complexity of encryption activity ranges from, for example, Morse code which is routinely performed in a person’s head, through, for example the cryptographic secure hash algorithms (SHA) of the National Security Agency which require sophisticated computational capabilities and thus cannot be performed mentally. *See CyberSource Corp. v. Retail Decisions, Inc.*, 654 F.3d 1366, 1375, 1372 (Fed. Cir. 2011) (holding that the incidental use of “computer” or “computer readable medium” does not make a claim otherwise directed to process that “can be performed in the human mind, or by a human using a pen and paper” patent eligible); *id.* at 1376 (distinguishing *Research Corp. Techs. v. Microsoft Corp.*, 627 F.3d 859 (Fed. Cir. 2010), and *SiRF Tech., Inc. v. Int’l Trade Comm’n*, 601 F.3d 1319 (Fed. Cir. 2010), as directed to inventions that “could not, as a practical matter, be performed entirely in a human’s mind”). Appellants disclose a cryptographic component which may include such cryptographic tools and accelerators as Twofish, Blowfish, AES, TDES, IDEA, CASTS, and RC4. Spec., ¶ 72. A person of skill in the art would recognize these cryptographic algorithms as part of the National Institute of Standards and Technology Advanced Encryption Standard program. Appellants further disclose the cryptographic component may include hashing modules such as SHA-0, SHA-1, SHA-224, SHA-256, SHA-384, and SHA-512. Such algorithms are technological functions which are not capable of being performed by the human mind. However, the claims are not limited to such NSA-type algorithms, but are broad enough to encompass Morse code type encryption.

facilitating a content transfer by transferring usage rights between devices.” Final Act 3. This finding is consistent with our finding that limitations [f] and [h] “creat[e] a contractual relationship—a ‘transaction performance guaranty,’” abstract idea, as concluded by the court in *buySAFE*. The Examiner further finds the claims merely amount to the application (or instructions to apply) the abstract idea of facilitating a media transfer through the use of computers to identify options (analogous to *SmartGene*), to collect and compare known information (analogous to *Classen*), and to use categories to organize, store and transmit information (analogous to *Cyberfone*). *Id.* 4–5.

Appellants disagree with the characterization of their claims as being directed to an abstract idea and argue the characterization is oversimplified and over-broad. Appeal Br. 8. Appellants contend the claims are rooted in computer technology and provides a specific way to achieve a desired outcome or result that renders the subject matter of claim 1 a non-abstract idea. *Id.* 9.

Appellants’ arguments are not persuasive because “performance of a claim limitation using generic computer components does not necessarily preclude the claim limitation from being in the mental processes grouping, *Benson*, 409 U.S. at 67, or the certain methods of organizing human activity grouping, *Alice*, 573 U.S. at 219–20.” Rev. Guid. 52, n.14.

*Step 2A(ii) – Practical Application*

Where, as here, we determine at Step 2A(i) the claims recite a judicial exception, we look to determine the presence of additional elements that integrate the judicial exception into a practical application. The Revised

Guidance is “designed to more accurately and consistently identify claims that recite a practical application of a judicial exception [] and thus are not ‘directed to’ a judicial exception.” Rev. Guid., at 53. The claims recite a practical application where an additional element reflects an improvement in the functioning of a computer, or an improvement to other technology or technical field.<sup>14</sup> Rev. Guid., 55.

For the reasons which follow, we conclude that Appellants’ claims do not integrate the judicial exception into a practical application. *See* MPEP § 2106.05(a)-(c) and (e)-(h). We address these “practical application” MPEP sections *seriatim*:

MPEP § 2106.05(a) “Improvements to the Functioning of a Computer or To Any Other Technology or Technical Field.”

“In determining patent eligibility, examiners should consider whether the claim ‘purport(s) to improve the functioning of the computer itself’” or “‘any other technology or technical field.’” MPEP § 2106.05(a).

Appellants contend “the facilitating of transfer of digital content and rights from a first device to a second device, cannot be performed by a human mentally and are rooted in computer technology to solve a problem arising in the realm of computer networks.” Appeal Br. 11. Specifically, Appellants argue: “the present claims address a problem of an owner of digital content sending the digital content from the owner’s electronic device

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<sup>14</sup> The Revised Guidance also finds integration into a practical application where the judicial exception is used in medical treatment or to transform an article to a different state. Revised Guidance at 55. Such considerations are not before us.

to another person’s electronic device and not being able to prevent the other person from sending the digital content to a third entity and not being able to limit the length of time or number of times the other person can use the digital content.” Reply Br. 3–4 (citing Spec. ¶ 23).

First, we note that Appellants’ characterization of their claims aligns with our finding, *supra*, that limitations [f] and [h] “creat[e] a contractual relationship—a ‘transaction performance guaranty,’” an abstract idea, as concluded by the court in *buySAFE*. Next, we note Appellants characterize the problem solved by their claims, i.e., the problem to which the claims are directed, as one of “not being able to prevent the other person from sending the digital content to a third entity and not being able to limit the length of time or number of times the other person can use the digital content.” Reply Br. 3–4. Thus, we find Appellant’s claims are directed, not to a technological problem, but to the “method of organizing human activity” category of abstract ideas.

Although Appellants argue their claims solve a problem of computer networks, they fail to explain the purported technological problem or how their claims solve such problem.

We find that such generic recitations of computing elements fail to transform a patent-ineligible concept into an eligible one. *See Mortgage Grader, Inc. v. First Choice Loan Servs. Inc.*, 811 F.3d 1314, 1324–25 (Fed. Cir. 2016) (generic computer components, such as an “interface,” “network,” and “database,” fail to satisfy the inventive concept requirement; *Alice*, 573 U.S. at 226 at 2360 (“Nearly every computer will include a ‘communications controller’ and a ‘data storage unit’ capable of performing

the basic calculation, storage, and transmission functions required by the method claims.”).

MPEP § 2106.05(b) Particular Machine.

At the outset, we note that the *Bilski* machine-or-transformation test is only applicable to the method (process) claims on appeal. This section of the MPEP guides: “When determining whether a claim recites significantly more than a judicial exception, examiners should consider whether the judicial exception is applied with, or by use of, a particular machine.” *See Bilski v. Kappos*, 561 U.S. 593, 604 (2010) (“[T]he machine-or-transformation test is a useful and important clue, and investigative tool” for determining whether a claim is patent eligible under § 101). MPEP § 2106.05(b).

MPEP § 2106.05(b) provides further guidance regarding what constitutes a particular machine:

[A]s described in MPEP §2106.05(f), additional elements that invoke computers or other machinery merely as a tool to perform an existing process will generally not amount to significantly more than a judicial exception. *See, e.g., Versata Development Group v. SAP America*, 793 F.3d 1306, 1335 (Fed. Cir. 2015) (explaining that in order for a machine to add significantly more, it must “play a significant part in permitting the claimed method to be performed, rather than function solely as an obvious mechanism for permitting a solution to be achieved more quickly”).

We find the claims on appeal are *silent* regarding specific limitations directed to an *improved* computer system, processor, memory, network,

database, or Internet, nor do Appellants direct our attention to such specific limitations. “[T]he mere recitation of a generic computer cannot transform a patent-ineligible abstract idea into a patent-eligible invention.” *Alice*, 573 U.S. at 223; *see also BASCOM Glob. Internet Servs., Inc. v. AT&T Mobility LLC*, 827 F.3d 1341, 1348 (Fed. Cir. 2016) (“An abstract idea on ‘an Internet computer network’ or on a generic computer is still an abstract idea”). Applying this reasoning here, we conclude Appellants’ claims are not directed to a particular machine, but rather merely implement an abstract idea using generic computer components. Thus, we conclude Appellants’ method claims fail to satisfy the “tied to a particular machine” prong of the *Bilski* machine-or-transformation test.

MPEP § 2106.05(c) Particular Transformation.

This section of the MPEP guides: “Another consideration when determining whether a claim recites significantly more is whether the claim effects a transformation or reduction of a particular article to a different state or thing.” “[T]ransformation and reduction of an article ‘to a different state or thing’ is *the clue* to patentability of a process claim that does not include particular machines.” *Bilski v. Kappos*, 561 U.S. at 658 (quoting *Benson*, 409 U.S. at 70).

The claims operate to select and analyze certain electronic data, i.e., digital rights data. The selection of electronic data is not a “transformation or reduction of an *article* into a different state or thing constituting patent-eligible subject matter[.]” *See In re Bilski*, 545 F.3d 943, 962 (Fed. Cir. 2008) (emphasis added). *See also CyberSource Corp. v. Retail Decisions*,

*Inc.*, 654 F.3d 1366, 1375 (Fed. Cir. 2011) (“The mere manipulation or reorganization of data . . . does not satisfy the transformation prong.”). Applying this guidance here, we conclude Appellants’ method claims fail to satisfy the transformation prong of the *Bilski* machine-or-transformation test.

MPEP § 2106.05(e) Other Meaningful Limitations.

This section of the MPEP guides:

*Diamond v. Diehr* provides an example of a claim that recited meaningful limitations beyond generally linking the use of the judicial exception to a particular technological environment. 450 U.S. 175 (1981). In *Diehr*, the claim was directed to the use of the Arrhenius equation (an abstract idea or law of nature) in an automated process for operating a rubber-molding press. 450 U.S. at 177-78. The Court evaluated additional elements such as the steps of installing rubber in a press, closing the mold, constantly measuring the temperature in the mold, and automatically opening the press at the proper time, and found them to be meaningful because they sufficiently limited the use of the mathematical equation to the practical application of molding rubber products. 450 U.S. at 184. In contrast, the claims in *Alice Corp. v. CLS Bank International* did not meaningfully limit the abstract idea of mitigating settlement risk. 573 U.S. \_\_\_, 134 S. Ct. 2347, 110 USPQ2d 1976 (2014). In particular, the Court concluded that the additional elements such as the data processing system and communications controllers recited in the system claims did not meaningfully limit the abstract idea because they merely linked the use of the abstract idea to a particular technological environment (i.e., “implementation via computers”) or were well-understood, routine, conventional activity.

MPEP § 2106.05(e).

“[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. Similarly as for *Alice*, we find that “[t]aking the claim elements separately, the function performed by the computer at each step of the process is ‘[p]urely conventional.’” *Id.* “In short, each step does no more than require a generic computer to perform generic computer functions.” *Id.*

We find that Appellants’ claims do not add meaningful limitations beyond generally linking the use of the judicial exception to a particular technological environment.

#### MPEP § 2106.05(f) Mere Instructions To Apply An Exception.

Appellants do not persuasively argue that their claims do any more than to merely invoke generic computer components merely as a tool in which the computer instructions apply the judicial exception.

#### MPEP § 2106.05(g) Insignificant Extra-Solution Activity.

The claims operates to provide to receive and verify digital signatures, i.e., data. We find generating and displaying data to be a classic example of insignificant extra-solution activity. *See, e.g., Bilski*, 545 F.3d at 963 (en banc), *aff’d sub nom, Bilski v. Kappos*, 561 U.S. 593 (2010).

#### MPEP § 2106.05(h) Field of Use and Technological Environment.

[T]he Supreme Court has stated that, even if a claim does not wholly pre-empt an abstract idea, it still will not be limited

meaningfully if it contains only insignificant or token pre- or post-solution activity—such as identifying a relevant audience, a category of use, field of use, or technological environment.

*Ultramercial, Inc. v. Hulu, LLC*, 722 F.3d 1335, 1346 (Fed. Cir. 2013).

Claim 1 recites, *inter alia*, “an agent-server component, which is contained in a first portable communication device comprising a processor and a memory communicatively coupled to the processor, wherein the agent-server component is an integrated circuit coupled to the processor and the memory.” We find these computer system limitations simply relate to a field of use that attempts to limit the abstract idea to a particular technological environment.

We do not find Appellants’ argument to be persuasive because “[t]he courts have also identified examples in which a judicial exception has not been integrated into a practical application.” Revised Guidance at 55. The claims fail to recite a practical application where the additional element does no more than generally link the use of a judicial exception to a particular technological environment or field of use. *Id.* The mere application of an abstract idea in a particular field is not sufficient to integrate the judicial exception into a practical application. *See id.* at n.32. In view of the foregoing, we conclude the claims are “directed to” a judicial exception.

Step 2(b)

*Well-understood, routine, conventional.*

Because the claims recite a judicial exception and does not integrate that exception into a practical application, we must then reach the issue of whether the claim adds a specific limitation beyond the judicial exception that is not “well-understood, routine, conventional” in the field. Revised

Guidance at 56.

Appellants fail to direct our attention to any description of the claimed computer system as other than its being consistent with its being “well-understood, routine, [and] conventional”: “[t]he agent-server 204 can be implemented in a portable electronic device (e.g., a cellular phone, a laptop computer, a PDA, etc.). The agent device can be an electronic device, such as a cellular phone, a computer, a PDA, an MP3 player, an iPod, a media player, etc., that is capable of using and presenting such content.” Spec. ¶ 52. We find such “well-understood, routine, [and] conventional” limitations fail to indicate the presence of an inventive concept.

*Specified at a high level of generality.*

It is indicative of the absence of an inventive concept where the claims simply append well-understood, routine, conventional activities previously known to the industry, specified at a high level of generality, to the judicial exception. Revised Guidance at 56.

The claims fail to recite any specific steps of an algorithm, nor do Appellants cite Specification disclosure for the required specificity.

We find the limitations are specified at such a high level of generality consistent with the absence of an inventive concept. Therefore, we conclude that none of the claim limitations, viewed “both individually and as an ordered combination,” amount to significantly more than the judicial exception in order to sufficiently transform the nature of the claims into patent-eligible subject matter. *See Alice*, 573 U.S. at 217 (internal quotations omitted) (quoting *Mayo*, 566 U.S. at 79).

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In view of the foregoing, we sustain the rejection of Claims 1, 2, 4, 7–10, 12–19, 21, and 23–25 under 35 U.S.C. § 101.

#### DECISION

The rejection of Claims 1, 2, 4, 7–10, 12–19, 21, and 23–25 under 35 U.S.C. § 101 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. § 41.50(f).

AFFIRMED

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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*Ex parte* JOE YUEN TOM, JEREMY ISAAC NATHANIEL WERNER,  
and RUSSELL BARCK

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Appeal 2018-004278  
Application 11/616,385  
Technology Center 3600

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Before JOHN A. EVANS, JAMES W. DEJMEK, and  
MATTHEW J. MCNEILL, *Administrative Patent Judges*.

DEJMEK, *Administrative Patent Judge*.

CONCURRING OPINION

Although I concur in the decision to affirm the Examiner's rejection that claims 1, 2, 4, 7–10, 12–19, 21, and 23–25 are patent ineligible under 35 U.S.C. § 101, I write separately because, as explained below, rather than a mental process, I conclude the claims are directed to a certain method of organizing human activity—i.e., an abstract idea—without significantly more to confer patent eligibility.

Similar to the Majority, the Supreme Court's two-step framework guides my analysis of patent eligibility under 35 U.S.C. § 101. *Alice Corp. v. CLS Bank Int'l*, 573 U.S. 208, 217 (2014). As set forth by the Majority, the Office recently published revised guidance for evaluating subject matter

eligibility under 35 U.S.C. § 101, specifically with respect to applying the *Alice* framework. USPTO, *2019 Revised Patent Subject Matter Eligibility Guidance*, 84 Fed. Reg. 50 (Jan. 7, 2019) (“Office Guidance”). If a claim falls within one of the statutory categories of patent eligibility (i.e., a process, machine, manufacture, or composition of matter) then the first inquiry is whether the claim is directed to one of the judicially recognized exceptions (i.e., a law of nature, a natural phenomenon, or an abstract idea). *Alice*, 573 U.S. at 217. As part of this inquiry, we must “look at the ‘focus of the claimed advance over the prior art’ to determine if the claim’s ‘character as a whole’ is directed to excluded subject matter.” *Affinity Labs of Tex., LLC v. DIRECTV, LLC*, 838 F.3d 1253, 1257–58 (Fed. Cir. 2016) (internal citations omitted). Per Office Guidance, this first inquiry has two prongs of analysis: (i) does the claim recite a judicial exception (e.g., an abstract idea), and (ii) if so, is the judicial exception integrated into a practical application. 84 Fed. Reg. at 54. Under the Office Guidance, if the judicial exception is integrated into a practical application, *see infra*, the claim is patent eligible under § 101. 84 Fed. Reg. at 54–55. If the claim is directed to a judicial exception (i.e., recites a judicial exception and does not integrate the exception into a practical application), the next step is to determine whether any element, or combination of elements, amounts to significantly more than the judicial exception. *Alice*, 573 U.S. at 217; 84 Fed. Reg. at 56.

Here, I would conclude Appellants’ claims recite an abstract idea. More specifically, Appellants’ claims are generally directed to controlling the use of digital content transferred from a first device to a second device.

This is consistent with how Appellants describe the claimed invention. *See* Spec. ¶¶ 4, 24. Consistent with Office Guidance and caselaw, I would conclude that controlling the use of digital content transferred from a first device to a second device is a commercial interaction (e.g., including commercial agreements) and/or an interaction between people (e.g., including social activities), both of which fall within a certain method of organizing human activity—an abstract idea. *See* 84 Fed. Reg. at 52; *see also Affinity Labs of Texas, LLC v. Amazon.com Inc.*, 838 F.3d 1266, 1269 (Fed. Cir. 2016) (concluding “the concept of delivering user-selected media content to portable devices is an abstract idea”); *Prism Techs. LLC v. T-Mobile USA, Inc.*, 696 F. App’x 1014, 1017 (Fed. Cir. 2017) (non-precedential) (concluding “providing restricted access to resources” to be abstract); *buySAFE, Inc. v. Google, Inc.*, 765 F.3d 1350, 1355 (Fed. Cir. 2014) (holding that the concept of “creating a contractual relationship—a ‘transaction performance guaranty’ is an abstract idea); *Interval Licensing LLC v. AOL, Inc.*, 896 F.3d 1335, 1344–45 (Fed. Cir. 2018) (concluding that “providing someone an additional set of information without disrupting the ongoing provision of an initial set of information is an abstract idea”).

Claim 12 is reproduced below and includes the following claim limitations that recite controlling the use of digital content transferred from a first device to a second device, emphasized in *italics*:

12. A method for facilitating transfer of digital content and rights from a first device to a second device, the method comprising:

mutually authenticating the first device and the second device;

*creating, by the first device, a rights object of usage rights associated with digital content stored in memory of the first device;*

*encrypting, by the first device, the digital content and the usage rights prior to transferring the digital content and the usage rights to the second device;*

*transferring the digital content and the rights object of usage rights from the first device to the second device via a wired or a wireless communication connection between the first device and the second device, wherein the second device is remote from the first device, wherein one of the usage rights of the rights object specifies when the digital content is to be automatically deleted from a second memory of the second device;*

*receiving, by the first device, a first signature from the second device to verify that the rights object and the usage rights transferred to the second device are intact;*

upon verification of the first signature, transferring a decryption key to the second device to permit the second device to decrypt the digital content and the rights attachment encrypted by the first device;

*controlling use of the digital content at the second device in accordance with the usage right; and*

receiving, at the first device, a second signature associated with the digital content from the second device, wherein the second signature notifies the first device that the digital content has been deleted from the second memory of the second device by the second device, and wherein the signature is automatically generated by the second device after the second device deletes the digital content from the second memory.

More specifically, controlling the use of digital content transferred from a first device to a second device comprises (i) defining, transferring, and verifying usage rights associated with the digital content (i.e., the claimed steps of creating a rights object of usage rights, transferring the

rights object of usage rights, and receiving verification that the rights object of usage rights successfully transferred to the second device); (ii) encrypting and transferring the digital content (i.e., the claimed steps of encrypting and transferring the digital content from the first device to the second device); and (iii) providing a decryption key to access the encrypted digital content and controlling and verifying its usage in accordance with the usage rights (i.e., the claimed steps of transferring a decryption key from the first device to the second device, controlling its usage in accordance with the usage rights, and receiving verification of compliance with the usage right (e.g., deletion of the content)).

Because the claim recites a judicial exception, the next step is to determine whether the claim integrates the judicial exception into a practical application. 84 Fed. Reg. at 54. To determine whether the judicial exception is integrated into a practical application, we identify whether there are “*any additional elements recited in the claim beyond the judicial exception(s)*” and evaluate those elements to determine whether they integrate the judicial exception into a recognized practical application. 84 Fed. Reg. at 54–55 (emphasis added); *see also* Manual of Patent Examining Procedure (“MPEP”) § 2106.05(a)–(c), (e)–(h) (9th ed. Rev. 08.2017, Jan. 2018).

Here, similar to the Majority’s analysis, I would find the additional limitation(s) do not integrate the judicial exception into a practical application. More particularly, the claims do not recite (i) an improvement to the functionality of a computer or other technology or technical field (*see* MPEP § 2106.05(a)); (ii) use a “particular machine” to apply or use the

judicial exception (*see* MPEP § 2106.05(b)); (iii) a particular transformation of an article to a different thing or state (*see* MPEP § 2106.05(c)); or (iv) any other meaningful limitation (*see* MPEP § 2106.05(e)). *See also* 84 Fed. Reg. at 55. Rather, the additional limitations merely refine the abstract idea (e.g., describing a particular type of usage right, defining which device is performing a particular step, or describing an order in which files (e.g., digital content or usage rights) are transferred). Additionally, I would find that the step of mutually authenticating the first and second devices is merely extra-solution activity that does not otherwise confer patent eligibility. *See Parker v. Flook*, 437 U.S. 584, 590 (1978) (explaining “[t]he notion that post-solution activity, no matter how conventional or obvious in itself, can transform an unpatentable principle into a patentable process exalts form over substance”); *see also* MPEP § 2106.05(g).

Additionally, I find Appellants’ reliance (*see* App. Br. 9–10) on the holding in *DDR Holdings*<sup>15</sup> inapposite.

In *DDR Holdings*, the Federal Circuit determined “the claimed solution amount[ed] to an inventive concept for resolving [a] particular Internet-centric problem,” i.e., a challenge unique to the Internet. *DDR Holdings*, 773 F.3d at 1257–59; *see Synopsys, Inc. v. Mentor Graphics Corp.*, 839 F.3d 1138, 1151 (Fed. Cir. 2016) (noting that “[i]n *DDR Holdings*, we held that claims ‘directed to systems and methods of generating a composite web page that combines certain visual elements of a “host” website with content of a third-party merchant’ contained the

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<sup>15</sup> *DDR Holdings, LLC v. Hotels.com, L.P.*, 773 F.3d 1245 (Fed. Cir. 2014).

requisite inventive concept”). The Federal Circuit explained that the patent-eligible claims specified “how interactions with the Internet are manipulated to yield a desired 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. The court reasoned that those claims recited a technological solution “necessarily rooted in computer technology” that addressed a “problem specifically arising in the realm of computer networks.” *DDR Holdings*, 773 F.3d at 1257. Here, unlike the claims at issue in *DDR Holdings*, Appellants’ claims do not address a problem specifically arising in the realm of computer networks, but rather merely use computer devices (i.e., user devices) that operate in their normal, expected manner. *See DDR Holdings*, 773 F.3d at 1258–59.

For at least the foregoing reasons, the claims do not integrate the judicial exception into a practical application.

Because I determine the claims are directed to an abstract idea or combination of abstract ideas, I analyze the claims under step two of *Alice* to determine if there are additional limitations that individually, or as an ordered combination, ensure the claims amount to “significantly more” than the abstract idea. *Alice*, 573 U.S. at 217–18 (citing *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 566 U.S. 66, 72–73, 77–79 (2012)). As stated in the Office Guidance, many of the considerations to determine whether the claims amount to “significantly more” under step two of the *Alice* framework are already considered as part of determining whether the judicial exception has been integrated into a practical application. 84 Fed. Reg. at 56. Thus, at this point of the analysis, I determine if the claims add a

specific limitation, or combination of limitations, that is not well-understood, routine, conventional activity in the field, or simply appends well-understood, routine, conventional activities at a high level of generality. 84 Fed. Reg. at 56.

Here, Appellants' claims do not recite specific limitations (or a combination of limitations) that are not well-understood, routine, and conventional. Appellants describe the devices and the environment in which the claimed invention may be practiced at a high level of generality. *See* Spec. ¶¶ 90–100, Figs. 12, 13 (describing and illustrating generic computing devices and networks); *see also buySAFE*, 765 F.3d at 1355 (“That a computer receives and sends the information over a network . . . is not even arguably inventive.”).

For the reasons discussed *supra*, I am not persuaded of Examiner error and concur with the Majority in affirming the Examiner's rejection of claims 1, 2, 4, 7–10, 12–19, 21, and 23–25 under 35 U.S.C. § 101.