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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* JOSEPH E. SCOTT

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Appeal 2018-002842  
Application 14/198,200  
Technology Center 3600

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Before CAROLYN D. THOMAS, CARL W. WHITEHEAD JR., and  
ERIC B. CHEN, *Administrative Patent Judges*.

CHEN, *Administrative Patent Judge*.

DECISION ON APPEAL

### STATEMENT OF THE CASE

Pursuant to 35 U.S.C. § 134(a), Appellant<sup>1</sup> appeals from the Examiner's decision to reject claims 1, 3, 4, 6–9, 11, 12, 14–16, 21–25, and 27–29. Claims 2, 5, 10, 13, 17–20, and 26 have been cancelled. We have jurisdiction under 35 U.S.C. § 6(b).

We REVERSE.

### CLAIMED SUBJECT MATTER

The claims are directed to sharing of content (e.g. video) by a user device that is participating in an ad hoc network via a short range local wireless connections. (Abstract.)

Claim 1, reproduced below, is illustrative of the claimed subject matter, with disputed limitations in italics:

1. A method, comprising:

[i] *joining, by a user device and via direct wireless connections with other user devices*, an ad hoc network including the other user devices, the joining including:

[a] communicating through a radio access network (RAN) of a cellular wireless network, obtaining device discovery information, via the communication through the RAN of the cellular wireless network, the device discovery information including location information of the other user devices, and

[b] initiating the direct wireless connections, to form the ad hoc network, based on the obtained location information;

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<sup>1</sup> We use the word “Appellant” to refer to “Applicant” as defined in 37 C.F.R. § 1.42(a). Appellant identifies the real party in interest as Verizon Communications, Inc. (Appeal Br. 2.)

[c] *receiving, by the user device, a content stream from the cellular wireless network;*

[ii] *transmitting, by the user device and via the ad hoc network, an indication of the content stream, received from the cellular wireless network, to the other user devices in the ad hoc network;*

[iii] receiving, by the user device and from one or more of the other user devices in the ad hoc network, a request for the content stream;

[iv] forwarding, by the user device and via the ad hoc network, the content stream to the one or more of the other user devices in the ad hoc network, to provide the content stream to the one or more other user devices without using the cellular wireless network to transmit the content stream to the one or more other user devices; and

[v] presenting, by the user device, the content stream.

#### REFERENCES

<b>Name</b>	<b>Reference</b>	<b>Date</b>
Collet et al.	US 2010/0161752 A1	June 24, 2010
Hall et al.	US 2013/0157692 A1	June 20, 2013
Knapp	US 2013/0232435 A1	Sept. 5, 2013
Kumar et al.	US 8,576,846 B2	Nov. 5, 2013
Shaw et al.	US 2013/0322268 A1	Dec. 5, 2013

#### REJECTIONS

Claims 1, 3, 4, 6–9, 11, 12, 14–16, 21–25, and 27–29 stand rejected under 35 U.S.C. § 101 as directed to patent-ineligible subject matter.

Claims 1, 3, 4, 7, 9, 12, 14, 21–23, and 27–29 stand rejected under 35 U.S.C. § 103 as unpatentable over Collet and Hall.

Claims 8 and 15 stand rejected under 35 U.S.C. § 103 as unpatentable over Collet, Hall, and Shaw.

Claims 11, 24, and 25 stand rejected under 35 U.S.C. § 103 as unpatentable over Collet, Hall, and Kumar.

Claims 6 and 16 stand rejected under 35 U.S.C. § 103 as unpatentable over Collet, Hall, and Knapp.

### OPINION

We are persuaded by Appellant’s arguments (Appeal Br. 23) that the Examiner has not satisfied the proper burden for making a prima facie case for patent ineligibility under 35 U.S.C. § 101.

The Examiner determined the following:

Claim 1, similarly as determined in *Cyberfone*’s inventive concept is directed toward data transmission and therefore abstract. Here the subject matter of claim 1, as reasonably broadly construed, falls into a familiar class of claims “directed to” a patent ineligible concept directed toward data transmission and presentation which is concept well-established.

(Final Act. 18.) Likewise, the Examiner determined that claim 1 is “similar to the abstract concept to the process of comparing data that can be performed mentally, (see *Smartgene*).” (*Id.* at 2.) We agree that the Examiner has not satisfied the proper burden for a prima facie case.

An invention is patent-eligible if it claims a “new and useful process, machine, manufacture, or composition of matter.” 35 U.S.C. § 101. However, the Supreme Court has long interpreted 35 U.S.C. § 101 to include implicit exceptions: “[I]aws of nature, natural phenomena, and abstract ideas” are not patentable. *E.g.*, *Alice Corp. v. CLS Bank Int’l*, 573 U.S. 208, 216 (2014).

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*. *Id.* at 217–18 (citing *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 566 U.S. 66, 75–77 (2012)). 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 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; *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, 67 (1972)). Concepts determined to be patent eligible include physical and chemical processes, such as “molding rubber products” (*Diamond v. Diehr*, 450 U.S. 175, 191 (1981)); “tanning, dyeing, making water-proof cloth, vulcanizing India rubber, smelting ores” (*id.* at 182 n.7 (quoting *Corning v. Burden*, 56 U.S. 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 that “[a] claim drawn to subject matter otherwise statutory does not become nonstatutory simply because it uses a mathematical formula.” *Diehr*, 450 U.S. at 176; *see also id.* at 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*); *see also, e.g., id.* at 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.”).

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.*

The PTO recently published revised guidance on the application of § 101. USPTO’s 2019 REVISED PATENT SUBJECT MATTER ELIGIBILITY GUIDANCE, 84 Fed. Reg. 50 (Jan. 7, 2019); *see also* USPTO, *October 2019 Update: Subject Matter Eligibility*, 84 Fed. Reg. 55942 (Oct. 17, 2019).

Under that 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); and
- (2) additional elements that integrate the judicial exception into a practical application (*see* MPEP § 2106.05(a)–(c), (e)–(h) (9th ed. 2019)).

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.

*See* 84 Fed. Reg. 56.

Although the Examiner generally states that select limitations from independent claim 1 are analogous to “comparing data that can be performed mentally” with a citation to *SmartGene, Inc. v. Advanced Biological Labs., SA*, 555 F. App’x 950, 955 (Fed. Cir. 2014) and “data transmission and presentation” with a citation to *Cyberfone Systems, LLC v. CNN Interactive Group, Inc.*, 558 Fed. Appx. 988, 993 (Fed. Cir. 2014), these statements does not demonstrate that the identified limitations fall within the subject matter groupings of abstract ideas of mathematical concepts, certain methods of organizing human activity, or mental processes. *See* 84 Fed. Reg. at 56. In particular, the Examiner has not explained how the limitations “[i][a] obtaining device discovery information . . . the device discovery information including location information of the other user devices” and “[i][b] initiating the direct wireless connections, to form the ad hoc network, based on the obtained location information” are merely mental processes.

Accordingly, we are persuaded by Appellant’s arguments that:

It appears that the Examiner is overly abstracting the specific features of claim 1 to make the erroneous conclusion that claim 1 is directed to abstract subject matter. Claim 1 does not abstractly cover all techniques for presenting content at a user

device. Rather claim 1 recites a specific technique in which a user device can receive and forward content using both a cellular network and an ad hoc network formed via direct wireless connections with other user devices. These recitations are clearly not abstract.

(Appeal Br. 23.)

Thus, we do not sustain the rejection of independent claim 1 under 35 U.S.C. § 101. Claims 3, 4, 6–8, 21, 27, and 28 depend from independent claim 1. We do not sustain the rejection of claims 3, 4, 6–8, 21, 27, and 28 under 35 U.S.C. § 101 for the same reasons discussed with respect to independent claim 1.

Independent claims 9 and 23 recite limitations similar to those discussed with respect to independent claim 1. We do not sustain the rejection of claims 9 and 23, as well as dependent claims 11, 12, 14–16, 22, 24, 25, and 29, for the same reasons discussed with respect to claim 1.

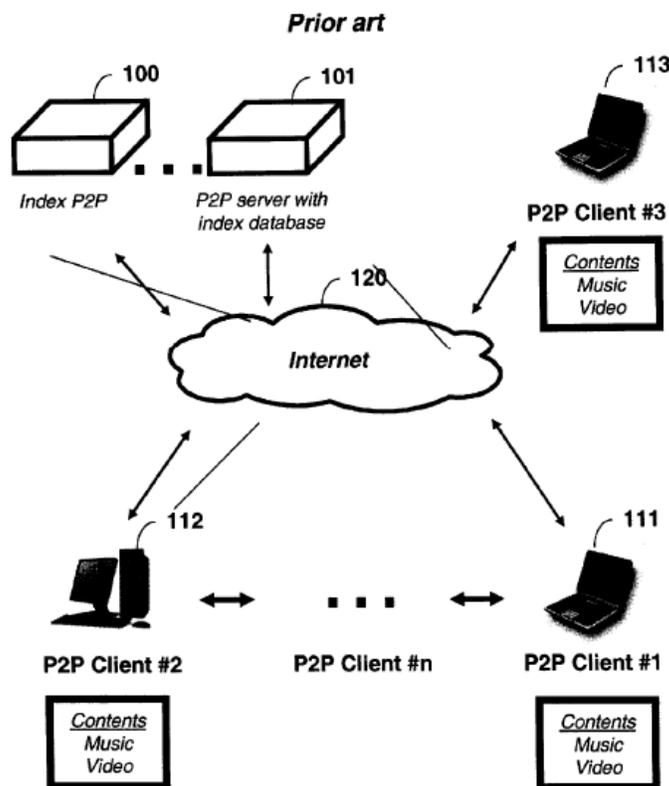
### *§ 103 Rejection—Collet and Hall*

We are persuaded by Appellant’s arguments (Appeal Br. 12; *see also* Reply Br. 4) that the combination of Collet and Hall would not have rendered obvious independent claim 1, which includes the limitations “joining, by a user device and via direct wireless connections with other user device,” “receiving, by the user device, a content stream from the cellular wireless network,” and “transmitting, by the user device and via the ad hoc network, an indication of the content stream, received from the cellular wireless network, to the other user devices in the ad hoc network.”

The Examiner found that Figure 1 of Collet, which illustrates peer-to-peer clients (e.g., nodes 111, 112, 113), servers 100 or 101, connected via Internet network 120 or alternatively, a mobile telephony network,

correspond to the limitations “joining, by a user device and via direct wireless connections with other user device,” “receiving, by the user device, a content stream from the cellular wireless network,” and “transmitting, by the user device and via the ad hoc network, an indication of the content stream, received from the cellular wireless network, to the other user devices in the ad hoc network.” (Final Act. 48–49; *see also* Ans. 12–14.) We do not agree with the Examiner’s findings.

Collet relates to “administrating a peer-to-peer file sharing network.” (¶ 3.) Figure 1 of Collet, reproduced below, illustrates an exemplary P2P system, which includes  $n$  peer-to-peer clients (e.g., nodes 111, 112, 113), servers 100 or 101, and Internet network 120. (¶ 29.)



**Fig. 1**

Collet explains that “[a]ll communications occur via the Internet network 120 in this example (any other network can be used, including mobile telephony network).” (*Id.*)

Although the Examiner cited to the  $n$  peer-to-peer clients of Collet and the alternative mobile telephony network of Collet (*id.*), the Examiner has provided insufficient evidence to support a finding that Collet teaches the limitations “joining, by a user device and via direct wireless connections with other user device,” “receiving, by the user device, a content stream from the cellular wireless network,” and “transmitting, by the user device and via the ad hoc network, an indication of the content stream, received from the cellular wireless network, to the other user devices in the ad hoc network.” In particular, while Figure 1 of Collet illustrates nodes 111, 112, and 113 (e.g., “P2P Client #1”), the Examiner has not identified which node is the claimed “user device,” much less the limitation “joining, by a user device and via direct wireless connections with other user device.”

Moreover, the Examiner had not explained how the mobile telephony network of Collet, which can be substituted for Internet network 120, would functionally cooperate with nodes illustrates nodes 111, 112, and 113, to teach the limitations “receiving, by the user device, a content stream from the cellular wireless network,” and “transmitting, by the user device and via the ad hoc network, an indication of the content stream, received from the cellular wireless network, to the other user devices in the ad hoc network.” Thus, on this record, the Examiner has not shown that Collet teaches the limitations “joining, by a user device and via direct wireless connections with other user device,” “receiving, by the user device, a content stream from the cellular wireless network,” and “transmitting, by the user device

and via the ad hoc network, an indication of the content stream, received from the cellular wireless network, to the other user devices in the ad hoc network.” In addition, Hall does not cure the above noted deficiencies of Collet.

Thus, we are persuaded by Appellant’s arguments, as follows:

Collet does not mention an ad hoc network, and Collet does not use a cellular wireless network to receive content, by a user device, and then forward the content via an ad hoc network (or any other network). More particularly, Collet does not describe or suggest, as is recited in claim 1, joining, by a user device and via direct wireless connections with other user devices, an ad hoc network. Collet also does not describe or suggest using the ad hoc network to forward content received over a cellular wireless network.

(Appeal Br. 12 (emphasis omitted).)

Claim 1 recites two distinct networks: a cellular wireless network (over which the content stream is received by the user device); and the ad hoc network (which the user device uses to forward the content stream to other user devices). Collet, in contrast, describes using a P2P network to distribute content.

(Reply Br. 4.)

Accordingly, we do not sustain the rejection of independent claim 1 under 35 U.S.C. § 103. Claims 3, 4, 7, 21, 27, and 28 depend from independent claim 1. We do not sustain the rejection of claims 3, 4, 7, 21, 27, and 28 under 35 U.S.C. § 103 for the same reasons discussed with respect to independent claim 1.

Independent claims 9 and 23 recite limitations similar to those discussed with respect to independent claim 1. We do not sustain the rejection of claims 9 and 23, as well as dependent claims 11, 12, 14–16, 22, 24, 25, and 29 for the same reasons discussed with respect to claim 1.

*§ 103 Rejection— Collet, Hall, and Shaw*

Claims 8 and 15 depend from independent claims 1 and 9. Shaw was cited by the Examiner for teaching the additional features of claims 8 and 15. (Final Act. 61–62, 71–72.) However, the Examiner’s application of Shaw does not cure the above noted deficiencies of Collet and Hall.

*§ 103 Rejection—Collet, Hall, and Kumar*

Claims 11, 24, and 25 depend from independent claims 9 and 23. Kumar was cited by the Examiner for teaching the additional features of claims 8 and 15. (Final Act. 70–71, 82–84.) However, the Examiner’s application of Kumar does not cure the above noted deficiencies of Collet and Hall.

*§ 103 Rejection—Collet, Hall, and Knapp*

Claims 6 and 16 depend from independent claims 1 and 9. Knapp was cited by the Examiner for teaching the additional features of claims 6 and 16. (Final Act. 59–60, 72–73.) However, the Examiner’s application of Knapp does not cure the above noted deficiencies of Collet and Hall.

CONCLUSION

The Examiner’s decision rejecting claims 1, 3, 4, 6–9, 11, 12, 14–16, 21–25, and 27–29 under 35 U.S.C. § 101 is reversed.

The Examiner’s decision rejecting claims 1, 3, 4, 6–9, 11, 12, 14–16, 21–25, and 27–29 under 35 U.S.C. § 103 is reversed.

DECISION SUMMARY

In summary:

<b>Claims Rejected</b>	<b>Basis</b>	<b>Affirmed</b>	<b>Reversed</b>
1, 3, 4, 6-9, 11, 12, 14-16, 21-25, 27-29	§ 101		1, 3, 4, 6-9, 11, 12, 14-16, 21-25, 27-29
1, 3, 4, 6-9, 11, 12, 14-16, 21-25, 27-29	§ 103		1, 3, 4, 6-9, 11, 12, 14-16, 21-25, 27-29
<b>Overall Outcome</b>			1, 3, 4, 6-9, 11, 12, 14-16, 21-25, 27-29

REVERSED