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EXAMINER

KOLOSOWSKI-GAGER, KATHERINE

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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte KENNY FOK and ERIC CHI CHUNG YIP

Appeal 2018-003257
Application 12/132,491
Technology Center 3600

Before ALLEN R. MacDONALD, NABEEL U. KHAN, and
IFTIKHAR AHMED, *Administrative Patent Judges*.

MacDONALD, *Administrative Patent Judge*.

DECISION ON APPEAL¹

STATEMENT OF THE CASE

Appellants appeal under 35 U.S.C. § 134(a) from a final rejection of claims 1–11, 13–26, 28–34, 36–41, 43–75, and 78–89. Appellants have cancelled claims 12, 27, 35, 42, 76, and 77. App. Br. 23–33. We have jurisdiction under 35 U.S.C. § 6(b). We AFFIRM.

¹ Appellants indicate the real party in interest is QUALCOMM Incorporated. App. Br. 3.

Illustrative Claim

Illustrative claim 1 under appeal reads as follows (emphasis, formatting, and bracketed material added):

1. A method of operating a user device, comprising:

[A.] monitoring, **by the user device**, application specific data that characterizes application type commonality between two or more applications that are configured for execution on the user device and/or user interaction commonality between the two or more applications;

[B.] determining, by the user device, a user interest trend for a user of the user device based on the application type commonality and/or the user interaction commonality;

[C.] updating, by the user device, a **local advertisement cache maintained by the user device** with one or more new targeted advertisements that are relevant to the user interest trend;

[D.] selecting, by the user device, a given targeted advertisement from the one or more new targeted advertisements in the local advertisement cache; and

[E.] outputting, by the user device, the given targeted advertisement.

App. Br. 22 (Claims Appendix).

*References*²

Subramonian et al.	US 6,701,362 B1	Mar. 2, 2004
Macaluso	US 2005/0215238 A1	Sept. 29, 2005
Ramer et al.	US 2007/0060099 A1	Mar. 15, 2007
Lerman et al.	US 2008/0021775 A1	Jan. 24, 2008
Carion et al.	US 2012/0022915 A1	Jan. 26, 2012

*Rejections*³

A. 35 U.S.C. § 101

The Examiner rejected claims 1–11, 13–26, 28–34, 36–41, 43–75, and 78–89 under 35 U.S.C. § 101 because the claimed invention “includes an abstract idea without significantly more,” i.e., because the claimed invention is directed to patent-ineligible subject matter. Final Act. 2–7.

We select claim 1 as representative. Appellants do not separately argue claims 2–11, 13–26, 28–34, 36–41, 43–75, and 78–89. Except for our ultimate decision, we do not discuss the § 101 rejection of claims 2–11, 13–26, 28–34, 36–41, 43–75, and 78–89 further herein.

² All citations herein to these references are by reference to the first named inventor only.

³ All citations to the “Final Action” are to the Final Action mailed on April 6, 2017.

B. 35 U.S.C. § 103⁴

B.1.

The Examiner rejected⁵ claims 1–5, 10, 11, 13–20, 25, 26, 28–31, 33, 34, 36–39, 41, 43, 45–49, 55–60, 66, 67, 69, 70, 71, 73, 74, 78, 81–87, and 89 under 35 U.S.C. § 103 as being unpatentable over the combination of Carion, Subramonian, and Macaluso. Final Act. 8–18.

We select claim 1 as representative. Appellants do not present separately arguments for claims 2–5, 10, 11, 13–20, 25, 26, 28–31, 33, 34, 36–39, 41, 43, 45–49, 55–60, 66, 67, 69, 70, 71, 73, 74, 78, 81–87, and 89. Except for our ultimate decision, we do not discuss the § 103 rejection of claims 2–5, 10, 11, 13, 14, 16–20, 25, 26, 28, 29, 31, 33, 34, 36, 37, 39, 45–49, 55–60, 66, 67, 69, 70, 71, 73, 74, 78, 81–87, and 89 further herein.

B.2.

The Examiner rejects claims 6–9, 21–24, 32, 40, 44, 50–53, 61–64, 68, 70, 72, 75, 79, 80, and 88 under 35 U.S.C. § 103 as being unpatentable over the combination of Mallon, Eldering, and Joseph in various combinations with numerous references. Final Act. 18–23.

Appellants do not present arguments for claims 6–9, 21–24, 32, 40, 44, 50–53, 61–64, 68, 70, 72, 75, 79, 80, and 88. Thus, the rejection of these claims turns on our decision as to claim 1. Except for our ultimate decision, we do not address the § 103 rejection of claims 6–9, 21–24, 32, 40, 44, 50–53, 61–64, 68, 70, 72, 75, 79, 80, and 88 further herein.

⁴ For simplicity, we label any rejections under 35 U.S.C. § 103(a), as rejections under § 103.

⁵ Although not listed in the heading of the Examiner’s rejection, claims 15, 30, 38, 41, and 43 are included in the body of the rejection. Final Act, 8, 12.

Issues on Appeal

Did the Examiner err in rejecting claim 1 as being directed to patent-ineligible subject matter?

Did the Examiner err in rejecting claim 1 as being obvious?

ANALYSIS

We have reviewed the Examiner’s rejections in light of Appellants’ arguments (Appeal Brief and Reply Brief) that the Examiner has erred. We disagree with Appellants. Except as noted below, we adopt as our own (1) the findings and reasons set forth by the Examiner in the action from which this appeal is taken and (2) the reasons set forth by the Examiner in the Examiner’s Answer in response to Appellants’ Appeal Brief arguments. We concur with the conclusions reached by the Examiner. We highlight the following points.

A. Section 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. 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. *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, 69 (1972)). Concepts determined to be patent eligible include physical and chemical processes, such as “molding rubber products” (*Diamond v. Diehr*, 450 U.S. 175, 192 (1981)); “tanning, dyeing, making waterproof cloth, vulcanizing India rubber, smelting ores” (*id.* at 182 n.7 (quoting *Corning v. Burden*, 56 U.S. 252, 267–68 (1853))); 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 187; *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.* (citation omitted) (citing *Benson* and *Flook*); *see, 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 (quotation marks 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.* (alterations in original) (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 § 101 Guidance

The United States Patent and Trademark Office (USPTO) recently published revised guidance on the application of § 101. USPTO’s January 7, 2019 Memorandum, *2019 Revised Patent Subject Matter Eligibility Guidance*, 84 Fed. Reg. 50 (“2019 Memorandum”). Under that guidance, we first look to whether the claim recites:

- (1) (*see* 2019 Memorandum Step 2A – Prong One) 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) (*see* 2019 Memorandum Step 2A – Prong Two) additional elements that integrate the judicial exception into a practical application (*see* MPEP § 2106.05(a)–(c), (e)–(h)).⁶

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 is 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 2019 Memorandum Step 2B.

C. Examiner’s § 101 Rejection - Alice/Mayo - Steps 1 and 2

C.1. 2019 Memorandum Step 2A – Prong One

Applying step 1 of the *Alice/Mayo* analysis, the Examiner determines claim 1 recites an abstract idea:

Claim 1 recites in part, a method comprising[:]

monitoring application specific data that characterizes application type commonality between two or more applications configured for execution and/or user interaction commonality between two or more application,

⁶ We acknowledge that some of these considerations may be properly evaluated under Step 2 of *Alice* (Step 2B of Office guidance). Solely for purposes of maintaining consistent treatment within the Office, we evaluate it under Step 1 of *Alice* (Step 2A of Office guidance). *See* 2019 Guidance.

determining a user interest trend based on the application type commonality and/or user interaction commonality,
updating advertisements with one or more new targeted advertisements that are relevant to the user interest trend,
selecting a given advertisement from the one or more new targeted advertisements, and outputting the given advertisement.

Final Act. 4–5 (emphasis and bracketing added).

The Examiner further determines:

These *steps describe* the concept of facilitating communication and/or *targeting advertisements*, which corresponds to concepts identified as abstract ideas regarding human activities by the courts, such as managing relationships or transactions between people, organizing information that can be performed mentally abstract, such as such as collecting and comparing known information (*Classen*), collecting information analyzing it and displaying certain results of the collection and analysis (*Electric Power group*), organizing information through mathematical correlations (*Digitech*) as well as obtaining and comparing intangible data (*CyberSource*). These concepts relate to an “idea” as well as “*certain methods of organizing human activity*”. These steps describe the concept of advertising, which corresponds to concepts identified as abstract ideas by the courts, such as displaying of advertising (*Ultramercial*). The concept described in claim 1 . . . is not meaningfully different than those “idea” as well as “organizing human activity” found by the courts to be abstract ideas.

Final Act. 5 (emphasis added).

C.2. 2019 Memorandum Step 2A – Prong Two

Further applying step 1 of the *Alice/Mayo* analysis, the Examiner determines claim 1 is directed to an abstract idea.

There is no indication that the combination of elements improves the functioning of a computer or improves any other technology.

Final Act. 6.

Further, the Examiner determines:

[Appellants'] claim 1 simply recites using a computer to operate a set of rules regarding sending and receiving - there is no indication of an improvement of the functioning of the computer itself, nor the individual elements of the process (i.e. sending and receiving), nor the finalized product of advertisements.

Final Act. 24 (emphasis added).

C.3. 2019 Memorandum Step 2B

Applying step 2 of the *Alice/Mayo* analysis, the Examiner determines:

The claims recite: monitoring “by the user device,” and wherein the monitored data is occurring “on the user device,” as well as wherein the “user device” determines the user interest trend, updates a “local advertisement cache maintained by the user device”, the user device also “selects the given advertisement,” and outputs the given advertisement. Generic computer components, i.e. processors, memory, communication apparatuses, recited as performing generic computer functions that are well-understood, routine and conventional activities amount to no more than implementing the abstract idea with a computerized system. Thus, taken alone, the additional elements do not amount to significantly more than a judicial exception. Looking at the limitations as an ordered combination adds nothing that is not already present when looking at the elements taken individually.

Final Act. 6.

Additionally, the Examiner determines:

The courts have found that functions similar to those of Applicants claims of “receiving, processing, and storing data” (See *Alice Corp.*, 134 S. Ct. at 2360. []) and “receiving or transmitting data over a network, e.g., using the Internet to gather data” (See *Ultramarical, [Inc. v. Hulu, LLC]*, 772 F.3d 709, 716–17 (Fed Cir. 2014)]; *buySAFE, Inc. v. Google, Inc.*, 765 F.3d 1350, 1355 (Fed. Cir. 2014) to be well-understood, routine, and conventional functions when they are claimed in a merely

generic manner. Courts have held computer-implemented processes not to be significantly more than an abstract idea (and thus ineligible) where the claim as a whole amounts to nothing more than generic computer functions merely used to implement an abstract idea.

Final Act. 6.

D. *Appellants' § 101 Arguments & Panel's Analysis*

D.1. *2019 Memorandum Step 2A, Prong 1*

The Examiner correctly determines that claim 1 recites the following limitations:

- [A.] monitoring . . . application specific data that characterizes application type commonality between two or more applications that are configured for execution on the user device and/or user interaction commonality between the two or more applications;
- [B.] determining . . . a user interest trend for a user of the user device based on the application type commonality and/or the user interaction commonality;
- [C.] updating . . . [advertisements] . . . with one or more new targeted advertisements that are relevant to the user interest trend; and
- [D.] selecting . . . a given targeted advertisement from the one or more new targeted advertisements

Final Act. 4–5 (bracketing added). In short, the Examiner correctly determines that claim 1 *recites* a method of facilitating communication and/or *targeting advertisements*; and advertising is one of certain methods of organizing human activity identified in the 2019 Memorandum, and thus an abstract idea. 84 Fed. Reg. at 52.

D.2. 2019 Memorandum Step 2A, Prong 2

D.2.a.

Having determined that claim 1 *recites* an abstract idea, we now turn to whether claim 1 *is directed to* that abstract idea. Appellants contend that like *McRO, Inc. v. Bandai Namco Games Am. Inc.*, 837 F.3d 1299 (Fed. Cir. 2016), claim 1 “meet[s] the Part I test set forth in *Alice* is by claiming a set of rules ‘allowing computer performance of a function not previously performable by a computer’ which improves an ‘existing technological process’.” App. Br. 10. Appellants particularly contend:

As recognized in the [Office’s] 11/02/2016 Memorandum, the “[t]he *McRO* court indicated that it was the incorporation of the particular claimed rules in computer animation that ‘improved [the] existing *technological process*’, unlike cases such as *Alice* where a computer was merely used as a tool to perform an existing process.” The Examiner is trying to limit *McRO*’s applicability to 3D animation lip-syncing models, which is an overly narrow takeaway and contrary to the intent of the 11/02/2016 Memorandum.

... In independent claim 1, the “existing *technological process*” of outputting a targeted advertisement is improved by updating a local advertisement cache using a “user interest trend” that is determined “based on the application type commonality and/or the user interaction commonality”, thereby satisfying 35 U.S.C. § 101 pursuant to *McRO* as well as the policies set forth in the 11/02/2016 Memorandum.

App. Br. 10 (emphasis added).

We agree with Appellants that improving a technological process may result in integrating the judicial exception into a practical application. This consideration has also been referred to as the search for a technological solution to a technological problem. See *Amdocs (Isr.), Ltd. v. Openet Telecom, Inc.*, 841 F.3d 1288, 1300 (Fed. Cir. 2016) (“[T]his claim entails

an unconventional technological solution . . . to a technological problem . . .”).

However, as discussed *supra*, we conclude the Examiner correctly determines that Appellants’ claimed process is “facilitating communication and/or targeting advertisements” which is a business problem and not a technological problem. We do not agree with Appellants that “outputting a targeted advertisement” is either a “technological field” or a “technological problem” or a “technological solution.” Rather, we determine that this is directed to the field of advertising and its problems and solutions. *See Ultramercial*, 772 F.3d at 715 (holding that claim “describe[ing] only the abstract idea of showing an advertisement before delivering free content ” is patent ineligible). Appellants’ argument is not persuasive.

D.2.b.

Appellants also contend:

The feature of “updating, by the user device, a local advertisement cache maintained by the user device with one or more new targeted advertisements that are relevant to the user interest trend” as recited in independent claim 1, for example, is similar to *Enfish, [LLC] v. Microsoft Corp.*, 822 F.3d 1327 (Fed. Cir. 2016) because memory fetch times for a targeted advertisement are faster when a matching advertisement is stored in local cache memory (i.e., cache hit) as opposed to when that targeted advertisement must be fetched remotely (i.e., cache miss).

App. Br. 11.

Further, the Appellant notes that the CAFC has recently established that changing the type of data stored in a cache to increase a hit ratio is non-abstract and patent eligible under Part I of the Alice framework. In particular, the Appellant directs the Examiner to *Visual Memory LLC v. NVIDIA Corp.* [867 F.3d 1253] (Fed. Cir. 2017).

App. Br. 12.

Appellants' argument is not persuasive. Unlike the detailed and in-depth cache improvement disclosed and claimed in *NVIDIA* (e.g., *NVIDIA*'s figure 1), Appellants' cache is disclosed as a black box labeled as "ADVERTISEMENT CACHE" (e.g., Appellants' figure 2). We determine that unlike *NVIDIA*, Appellants claim the cache without specifying how the cache operates. In order to transform a judicial exception into a patent-eligible application, the additional element or combination of elements must do "more than simply stat[e] the [judicial exception] while adding the words 'apply it.'" *Alice*, 573 U.S. at 221 (quoting *Mayo*, 566 U.S. at 72).

D.2.c.

We agree with the Examiner that as to the steps of claim 1, "[t]here is no indication that the combination of elements improves the functioning of a computer or improves any other technology." Final Act. 6. In view of Appellants' Specification, and consistent with the Examiner's determinations, we conclude that claim 1 does not integrate the judicial exception into a practical application. We determine claim 1 does not recite:

- (i) an improvement to the functioning of a computer;
- (ii) an improvement to another technology or technical field;
- (iii) an application of the abstract idea with, or by use of, a particular machine;
- (iv) a transformation or reduction of a particular article to a different state or thing; or
- (v) other meaningful limitations beyond generally linking the use of the abstract idea to a particular technological environment.

See MPEP §§ 2106.05(a)–(c), (e)–(h). We agree with the Examiner that claim 1 is *directed to* a judicial exception.

D.3. 2019 Memorandum Step 2B

Discussing the cache (Final Act. 6, line 4), the Examiner points out:

[P]erforming generic computer functions that are well-understood, routine and conventional activities amount to no more than implementing the abstract idea with a computerized system.

Final Act. 6.

We agree with the Examiner that use of a cache is well-understood, routine and conventional. This is evidenced by the references cited during examination. *See* Macaluso at 25, Ramer at 67, and Lerman at 49. At best, Appellants use the claimed cache as built and not as part of an improvement to the functioning of a computer system. Although claim 1 recites “more” under step two of the *Alice/Mayo* analysis, we conclude the “more” is not patentably significant. Rather, the record shows this “more” to be the epitome of a well-understood, routine, conventional element/combination previously known in the industry.

Because claim 1, in addition to the abstract idea, recites only a well-understood, routine, conventional element/combination previously known in the industry, we conclude the case law shows there is no genuine issue of material fact regarding step two of the Examiner’s *Alice/Mayo* analysis. Therefore, we are unpersuaded by Appellants’ argument that further evidence is required. In view of Appellants’ Specification, and consistent with the Examiner’s determinations, we determine the claims do not recite:

- (vi) a specific limitation other than what is well-understood, routine, conventional activity in the field or

unconventional steps that confine the claim to a particular useful application.

See MPEP § 2106.05(d).

E. *Appellants' § 103 Arguments*

E.1.

Appellants contend that the Examiner erred in rejecting claim 1 under 35 U.S.C. § 103 because:

The Appellant maintains that the asserted combination is unreasonable at least because the application data tracked by Carion is *server-specific* would not be available for *client-side* monitoring.

App. Br. 15 (emphasis added).

The Appellant reminds the Examiner that the claimed “user interest trend” is being interpreted as the “types of interactions considered to make a profile” with respect to [0023]-[0026] of Carion (e.g., see Page 8 of the Final Office Action). These interactions are monitored strictly at the server in Carion (e.g., see [0022] of Carion). If Subramonian’s client-side monitoring were simply added to Carion as suggested by the Examiner, the only reasonable result would be Subramonian’s client-side monitoring being used in parallel with Carion’s server-side monitoring, because Carion requires server-side monitoring of its server-hosted applications whereas Subramonian’s client-based system executes “without any server intervention” (e.g., Col. 10, lines 22-29 of Subramanian). In this case, Subramonian’s client-side monitoring would not determine the claimed “user interest trend” because the claimed “user interest trend” is being interpreted upon server-side operation in Carion which would not be visible to Subramanian’s client-side monitoring.

App. Br. 17.

As to Appellants' above contention, we are not persuaded because essentially Appellants' argument is premised on a "physical" or "bodily" incorporation of Carion's entire server-side processing into Subramanian's client-side processing. This is not the standard. "The test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference Rather, the test is what the combined teachings of those references would have suggested to those of ordinary skill in the art." *In re Keller*, 642 F.2d 413, 425, 208 USPQ 871, 881 (CCPA 1981); *see also In re Sneed*, 710 F.2d 1544, 1550, 218 USPQ 385, 389 (Fed. Cir. 1983) ("[I]t is not necessary that the inventions of the references be physically combinable to render obvious the invention under review."); *In re Nievelt*, 482 F.2d 965, 179 USPQ 224, 226 (CCPA 1973) ("Combining the teachings of references does not involve an ability to combine their specific structures.").

The Examiner did not suggest Carion's entire server-side processing should be bodily incorporated into the method of Subramanian. Rather, the Examiner relied on Carion to show it is known in the prior art to perform the claimed monitoring, determining, updating, and selecting functions. Final Act. 8. Appellants go beyond this to incorporate limitations from Carion which were not relied upon by the Examiner. Appellants then argue the limitations the Examiner did not rely upon. We are unpersuaded by this form of argument.

E.2.

Appellants also contend that the Examiner erred in rejecting claim 1 under 35 U.S.C. § 103 because:

A second dispute to be resolved . . . relates to whether Macaluso cures the admitted deficiency of Carion and Subramanian to disclose a local advertisement cache being updated specifically based on an inter-application user interest trend. The Examiner appears to be interpreting the “updating” feature in an overly broad manner by parsing out associated claim language. Once the “updating” feature is properly interpreted, Macaluso describes advertisements being downloaded in a manner that is not based upon an inter-application user interest trend.

App. Br. 15 (emphasis added).

The Examiner admits that “Macaluso is not cited for the user interest trend, merely the storage and use of cached targeted advertisements on a user device.” (e.g., see 6/16/2017 Advisory Action). This teaching from Macaluso is not a point of dispute, as the Appellant acknowledges that Macaluso caches advertisements as noted in Macaluso at [0032]. However, this contribution from Macaluso is broad, and is only relevant if the “updating” feature of independent claim 1 is parsed to an unreasonable extent.

...

The fact that Carion tracks certain application type and/or interaction information would thereby not appear relevant to Macaluso’s new advertisement selection scheme, since the basis of Macaluso’s new advertisement selection scheme appears to be strictly based on advertisement view history.

...

Accordingly, when “updating” is interpreted with the remainder of the claim language in independent claim 1 for example, Macaluso includes no suggestion of factoring “a user interest trend for a user of the user device based on the application type

commonality and/or the user interaction commonality” as recited in independent claim 1.

App. Br. 19–20.

Appellants’ assertion that claim 1 is “parsed to an unreasonable extent” is not persuasive. Beyond Appellants’ assertion, we find no explanation by Appellants as to why it is improper for the Examiner to use Macaluso for the limited purpose of teaching local caching of advertisements is known. Final Act. 9. Such unsupported attorney argument, is entitled to little probative value. *In re Geisler*, 116 F.3d 1465, 1470 (Fed. Cir. 1997); *In re De Blauwe*, 736 F.2d 699, 705 (Fed. Cir. 1984).

Moreover, Appellants’ arguments do not rebut the Examiner’s findings regarding the combined teachings of Carion, Subramonian, and Macaluso. Final Act. 8–10. The Examiner does not cite Macaluso for the argued “user interest trend” limitation. Rather, the Examiner cites Carion. Final Act. 8. Thus, Appellants do not address the actual reasoning of the Examiner’s rejection. Instead, Appellants attack the Macaluso reference singly for lacking a teaching that the Examiner relied on a combination of references to show. It is well-established that one cannot show non-obviousness by attacking references individually where the rejections are based on combinations of references. *See Keller*, 642 F.2d at 425; *In re Merck & Co., Inc.*, 800 F.2d 1091, 1097 (Fed. Cir. 1986). References must be read, not in isolation, but for what they fairly teach in combination with the prior art as a whole. *Merck*, 800 F.2d at 1097.

CONCLUSIONS

(1) The Examiner has not erred in rejecting claims 1–11, 13–26, 28–34, 36–41, 43–75, and 78–89 under 35 U.S.C. § 101, as being directed to patent-ineligible subject matter.

(2) The Examiner has not erred in rejecting claims 1–11, 13–26, 28–34, 36–41, 43–75, and 78–89 as being unpatentable under 35 U.S.C. § 103.

(3) Claims 1–11, 13–26, 28–34, 36–41, 43–75, and 78–89 are not patentable.

DECISION

The Examiner’s rejection of claims 1–11, 13–26, 28–34, 36–41, 43–75, and 78–89 under 35 U.S.C. § 101, as being directed to patent-ineligible subject matter, is **affirmed**.

The Examiner’s rejections of claims 1–11, 13–26, 28–34, 36–41, 43–75, and 78–89 as being unpatentable under 35 U.S.C. § 103 are **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)(1)(iv).

AFFIRMED