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910 Campisi Way, Suite 1E
Campbell, CA 95008

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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte SHALIN AMIN, MINA RADHAKRISHNAN,
PAUL-PHILLIP HOLDEN, and TRAVIS CORDELL KALANICK

Appeal 2017-007097
Application 13/672,651[1]
Technology Center 3600

Before LARRY J. HUME, JENNIFER L. McKEOWN, and
CARL L. SILVERMAN, *Administrative Patent Judges*.

SILVERMAN, *Administrative Patent Judge*.

DECISION ON APPEAL

Appellants appeal under 35 U.S.C. § 134(a) from the Examiner's Final Rejection of claims 1–18, 21, and 22, which constitute all pending claims. We have jurisdiction under 35 U.S.C. § 6(b).

We affirm.

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[1] The real party in interest is identified as Uber Technologies, Inc. App. Br. 3.

STATEMENT OF THE CASE

The invention relates to providing on-demand transport services utilizing portable computing devices. Abstract, Spec. ¶ 2, Fig. 2. Claim 1, reproduced below, is exemplary of the subject matter on appeal (emphasis added):

> 1. A computer-implemented method for operating a network service to arrange transport services, the method being performed on a computing system and comprising:
>
> providing data for a service application executing on a computing device of a user in connection with enabling the user to make a transport request for a transport service;
>
> *determining a fare adjustment over a given duration for a geographic region that includes a current location of the user, wherein determining the fare adjustment includes:*
>
> *(A) establishing a secure communication link with each of a plurality of users that are within the geographic region to determine, over the respective secure communication link of each of the plurality of users, an aggregation representing each of (i) a group of providers who are available to provide the transport service within the geographic region, and (ii) a group of customers who are within the geographic region to request or receive the transport service;*
>
> *(B) determining the fare adjustment based on input that identifies each of the group of providers and the group of customers; and*
>
> *receiving, from over one or more networks, data corresponding to the transport request from input by the user interacting with one or more confirmation user interfaces, the transport request specifying a pickup location for the user that is within the geographic region;*
>
> *prior to communicating information about the transport request to any provider in the group of providers, providing data for the one or more confirmation user interfaces, to display information corresponding to the transport request before the*

user transmits confirmation of the transport request to secure a provider for the transport request;

wherein providing the data for the one or more confirmation user interfaces includes causing the one or more confirmation user interface to display (i) a map that is relevant to the pickup location, the map including a graphic feature showing a position on the map corresponding to the pickup location, (ii) textual information corresponding to the pickup location, (iii) information corresponding to a fare for the transport request, the information including the fare adjustment that is determined for the given duration in response to the user input, and (iv) a selectable prompt, that when selected by the user, causes the computing device to transmit confirmation of the transport request to the network service over the one or more networks; and

upon receiving the confirmation from the user, communicating information about the transport request to one or more providers of the group.

App. Br. 36–37 (Claims Appendix).

THE REJECTIONS

Claims 1–18, 21, and 22 are rejected under 35 U.S.C. § 101 because the claimed inventions are directed to a judicial exception (i.e., a law of nature, a natural phenomenon, or an abstract idea) without significantly more. Final Act. 6–7.

Claims 1, 3, 6, 7, 9, 10, 15, 16, and 18 are rejected under pre-AIA 35 U.S.C. § 103(a) as being unpatentable over Tuoriniemi (US 2002/0034292 A1; pub March 21, 2002) ("Tuoriniemi"), Bishop (US 2009/0192851 A1; pub. July 30, 2009) ("Bishop"), Mashinsky (US 2006/0059023 A1; pub. March 16, 2006) ("Mashinsky") and McGrath (US 2006/0178949 A1; pub August 10, 2006) ("McGrath"). Final Act. 8–19.

Claims 2, 8, 11, 12 and 17 are rejected under pre-AIA 35 U.S.C. 103(a) as being unpatentable over Tuoriniemi, Bishop, Mashinsky,

McGrath, and Wei (US 2009/0326991 A1; December 31, 2009) ("Wei"). Final Act. 20–21.

Claims 4 and 13 are rejected under pre-AIA 35 U.S.C. § 103(a) as being unpatentable over Tuoriniemi, Bishop, Mashinsky, McGrath, Wei, and Hill (US 2009/0216600 A1; pub August 27, 2009) ("Hill")). Final Act. 21–22.

Claims 5 and 14 are rejected under pre-AIA 35 U.S.C. §103(a) as being unpatentable over Tuoriniemi, Bishop, Mashinsky, McGrath, and Grigg et al. (US 2012/0197793 A1; pub. August 2, 2012) ("Grigg"). Final Act. 22–23.

Claims 21 and 22 are rejected under pre-AIA 35 U.S.C. § 103(a) as being unpatentable over Tuoriniemi, Bishop, Mashinsky, Wurster (US 2008/0189207 A1; pub. August 7, 2008) ("Wurster"), and McGrath. Final Act. 23–29.

ANALYSIS

The § 101 Rejection

The Examiner determines the claims are directed to the abstract idea of "requesting a transport service" and the additional elements in the claims are not sufficient to amount to significantly more than the judicial exception. Final Act. 6–7 (citing *SmartGene, Inc. v. Advanced Biological Labs*, 555 Fed. Appx. 950 (Fed. Cir. 2014); *Cybersource Corp v. Retail Decisions, Inc.*, 654 F.3d 1366 (Fed. Cir. 2011); *Alice Corp.Pty. Ltd. v. CLS Bank Int'I*, 134 S. Ct. 2347, 2360 (2014); *buySAFE, Inc. v. Google, Inc.*, 765 F.3d 1350, 1355 (Fed. Cir. 2014); *Gametek LLC v. Zynga Inc.*, 597 Fed. Appx. 644 (Fed. Cir. 2015). The Examiner concludes:

> The claims do not include additional elements that are sufficient to amount to significantly more than the judicial exception

> because the computing device and network as recited are generic computer components that perform functions (i.e. providing, determining, receiving and displaying data) that are generic functions (i.e. providing, determining, and receiving) that are well-understood, routine, and conventional activities previously known to the industry. These generic functions are similar to the receiving, processing, and storing data that was held to be well-understood, routine, and conventional in [*Alice*] to the receiving and transmitting data over a network function in [*buySAFE*], to the "tracking, displaying, creating, permitting, determining, presenting and supplying" functions in [*Gametek*].

Id.

Appellants argue the claims are not directed to an abstract idea and the Examiner errs by overgeneralizing and oversimplifying the claims because "[a]t some level, all inventions . . . embody, use, reflect, rest upon, or apply laws of nature, natural phenomena, or abstract ideas." App. Br. 12 (citing *Alice Corp. Pty. Ltd. v. CLS Bank Int'l*, 134 S.Ct. 2347, 2354.) According to Appellants, the Examiner's finding that the claims are directed to the abstract idea of "requesting a transport service" is untethered from the claim language and ignores the requirements of the individual limitations/steps of the claims." *Id.* at 12 (citing *McRo, Inc. v. Bandai Namco Games Am.*, No. 2015-1080, Slip. Op. at 21-22 (Fed. Cir. Sept. 13, 2016)). In particular, Appellants argue the Examiner overlooks the following limitations (also referred to as "overlooked limitations"):

> *determining a fare adjustment over a given duration for a geographic region that includes a current location of the user, wherein determining the fare adjustment includes:*
>
> *(A) establishing a secure communication link with each of a plurality of users that are within the geographic region to determine, over the respective secure communication link of each of the plurality of users, an aggregation representing each of (i) a group of providers who are available to provide the*

> *transport service within the geographic region, and (ii) a group of customers who are within the geographic region to request or receive the transport service;*
>
> *(B) determining the fare adjustment based on input that identifies each of the group of providers and the group of customers;*
>
> *receiving, from over one or more networks, data corresponding to the transport request from input by the user interacting with one or more confirmation user interfaces, the transport request specifying a pickup location for the user that is within the geographic region;*
>
> *prior to communicating information about the transport request to any provider in the group of providers, providing data for the one or more confirmation user interfaces, to display information corresponding to the transport request before the user transmits confirmation of the transport request to secure a provider for the transport request;*
>
> *wherein providing the data for the one or more confirmation user interfaces includes causing the one or more confirmation user interface to display (i) a map that is relevant to the pickup location, the map including a graphic feature showing a position on the map corresponding to the pickup location, (ii) textual information corresponding to the pickup location, (iii) information corresponding to a fare for the transport request, the information including the fare adjustment that is determined for the given duration in response to the user input, and (iv) a selectable prompt, that when selected by the user, causes the computing device to transmit confirmation of the transport request to the network service over the one or more networks.*

Id. at 12–13 (emphasis added).

Appellants argue *SmartGene* and *Cybersource*, cited by the Examiner, are not related to the alleged abstract idea and the claims present no preemption concerns. *Id.* at 14–16. According to Appellants:

> [T]he Specification describes that, in preexisting technology and systems, devices to dispatch drivers and monitor fares are not

> communicative to customers waiting for pickup and little information is tracked about individual fares. *See* Specification at ¶ [0003]. The pending claims improve upon the pre-existing technology and are directed to a specific way of providing a confirmation panel showing relevant and important information (e.g., a map, textual information, fare adjustment information, etc.) after receiving a request for transport service from a user. *See, e.g.,* Abstract. Just like in *McRo,* it is the incorporation of the specific steps and limitations of the pending claims, not the use of computer, that improves pre-existing technology and systems.

Id. at 16.

Appellants argue the claims are rooted in technology and represent a technological improvement over prior art. *Id.* at 17 (citing *DDR Holdings, LLC v. Hotels.com, LP*, 773 F.3d 1245, 1248 (Fed. Cir. 2014). Appellants argue the claims constitute more than the alleged abstract idea and the Examiner's conclusory assertion that "'the computing device and network as recited are generic computer components that perform functions . . . that are generic functions . . . that are well-understood, routine, and conventional activities previously known to the industry' is unsupported by any analysis or any citation to intrinsic or extrinsic evidence." *Id.* at 19.

According to Appellants, many of the claim limitations embody patentable inventive concepts (referring to arguments presented regarding the § 103 rejection at App. Br. 22–33). *Id.* at 19–20. Appellants argue *Bascom* is applicable because, like the specific method of filtering Internet content determined to be neither conventional nor generic, which the court found the claims "recite a specific discrete implementation of the abstract idea of filtering content," the overlooked claim elements are similar. *Id.* at 20–21 *(citing Bascom Global Internet Services, Inc. v. AT&T Mobility*

LLC, 827 F.3d 1341 (Fed. Cir. 2016)*; DDR Holdings, Inc. v. Hotels.com, LP*, 773 F.3d 1245 (Fed. Cir. 2014)).

In the Answer, the Examiner points out that, although the Final Action stated the verbs of the claim for brevity, the Examiner considered the limitations as a whole and as an ordered combination. Ans. 3. According to the Examiner:

> [T]he abstract idea of "requesting a transport service" is similar to the abstract idea of comparing new and stored information and using rules to identify options because the claims describe the process of receiving user location data and comparing the data to the service providers data which is already tracked by the system to determine a fare adjustment and using the fare adjustment and the location data as rules to forward the user's request to the right service provider.
>
> The abstract idea of "requesting a transport service" is similar to the abstract idea of comparing intangible data because in requesting a transport service, the location data of the users and service providers is being compared in order to determine a fare adjustment and to also forward the request to the right service provider.

Id. at 4.

The Examiner finds *McRo* claims were essentially rooted in computer technology because there is no analog method to accomplish the specific limitations described in the claims whereas "[t]he current claims, on the other hand, are not rules that enable the automation of specific tasks that previously could not be automated or limitations necessarily rooted in computer technology." *Id.* at 6. The Examiner also finds "requesting a transport service" is an idea of itself because it can be performed through pen and paper. *Id.*

The Examiner determines *DDR*'s claims being rooted in computer technology is not applicable because to merge the "look and feel" of two different websites, a computer is an essential component as there is no method of merging two websites other than through a computer. *Id.* at 7 (citing *DDR Holdings, LLC v. Hotels.com, LP.*, 773 F.3d 1245 (Fed. Cir. 2014)). Regarding *DDR*, the Examiner finds

> the claims solved a technical problem that was essentially rooted in computer technology (i.e. "internet"). However, in the current claims, the internet is not necessary to perform the claims [and], [a]s tedious as it would be, if the computers were to be removed, the claims would still be performed through pre-internet technology such as telephones, recordkeeping logs, and location sensors.

Id.

The Examiner finds the additional elements are no more than "well-understood, routine, conventional activity" because the additional features (i.e. determining of the fare and provision of data) are not more than the automation of a manual process which in itself has been found not to be a "significantly more" limitation. *Id.* at 9. The Examiner also finds the computing devices that simply receive, process and transmit data over a network have been found not to be a "significantly more" limitation. *Id.*

The Examiner finds *Bascom*'s internet centric problem of filtering internet content is not applicable because, in *Bascom*, "[t]he internet as computer technology as well as the computers are a necessary components of the claims" and "it is impossible to perform the claims without the use of the internet because no analog version of the problem existed prior to the internet." *Id.* at 10 (citing *Bascom Global Internet Services, Inc. v. AT&T Mobility LLC*, 827 F.3d 134). In particular, the Examiner finds:

> As stated above and as tedious as it can be, the current claims represent a manual process that is merely linked to the internet and computers to solve the problem of requesting a transport service. The removal of the internet and the computers from the current claims and the use of pre-internet technology does not affect the performance of the abstract idea of "requesting a transport service". Therefore, while both Bascom and the current claims use a combination of conventional and routine computer components, Bascom is distinguishable from the current claims because current claims are merely linking the combination of the conventional and routine computer components to the abstract idea, while in Bascom, the abstract idea is necessarily rooted in the combination of the conventional and routine computer components.

Id. at 10.

In the Reply Brief, in addition to arguments discussed *supra*, Appellants argue the Examiner's analysis is incorrect because the Examiner fails to consider the claims as a whole, particularly referring to the "overlooked limitations." *See* Reply Br. 4–7. Appellants argue the current claims, "like those in *McRo* and *DDR*, perform functions using steps not available in a pre-computer equivalent approach." *Id.* at 7. Appellants argue the claims are rooted in technology and the Examiner does not explain how the steps in the "overlooked limitations" can be performed without technology. *Id.* at 8–10.

As discussed below, we are not persuaded by Appellants' arguments and agree, instead, with the Examiner's findings and conclusions.

The Supreme Court in *Alice Corp. Pty. Ltd. v. CLS Bank Int'l*, 134 S. Ct. 2347 (2014) reiterated the framework set out in *Mayo Collaborative Services v. Prometheus Laboratories, Inc.*, 566 U.S. 66 (2012) for "distinguishing patents that claim . . . abstract ideas from those that claim patent-eligible applications of those concepts." *Alice*, 134 S. Ct. at 2355. The first step in the analysis is to determine if the claim is directed toward a

patent-ineligible concept and, if so, the second step is to determine whether there are additional elements that transform the nature of the claim into a patent eligible application. *Id.* (citing *Mayo*, 566 U.S. at 79, 78). The second step searches for an inventive concept that is sufficient to ensure that the patent amounts to significantly more than a patent on the patent-ineligible concept. *Id.* (citing *Mayo*, 566 U.S. at 72–73).

The question is not whether claims mention a computing environment but what they are "directed to." The "directed to" inquiry applies a stage-one filter to claims, considered in light of the specification, based on whether "their character as a whole is directed to excluded subject matter." *Internet Patents Corp. v. Active Network, Inc.*, 790 F.3d 1343, 1346 (Fed. Cir. 2015); *see Genetic Techs. Ltd. v. Merial L.L.C.*, 818 F.3d 1369, 1376, (Fed. Cir. 2016) (inquiring into "[t]he focus of the claimed advance over the prior art"); *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1335 (Fed. Cir. 2016). "The 'abstract idea' step of the inquiry calls upon us to 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 Texas, LLC v. DIRECTV, LLC*, 838 F.3d 1253, 1257 (Fed. Cir. 2016) (quoting *Elec. Power Grp., LLC v. Alstom S.A.*, 830 F.3d 1350, 1353 (Fed. Cir. 2016)). "In determining the eligibility of respondents' claimed process for patent protection under § 101, their claims must be considered as a whole." *Diamond v. Diehr*, 450 U.S. 175, 188 (1981).

Initially, we note that we are not persuaded by Appellants' arguments that the Examiner oversimplifies the claims and did not correctly address the "overlooked limitations." The Examiner determined these limitations "perform functions (i.e. providing, determining, receiving and displaying

data) that are generic functions (i.e. providing, determining, and receiving) that are well-understood, routine, and conventional activities previously known to the industry." *See* Final Act. 6. The Examiner determined these generic functions are similar to the receiving, processing, and storing data that was held to be well understood, routine, and conventional, and cited relevant case law. *Id.* Moreover, as discussed *infra* regarding the § 103 rejections, the "overlooked limitations" are described in the cited prior art references.

We conclude each of Appellants' claims on appeal is distinguishable from the type of claim considered by the court in *Enfish*, *DDR*, *Bascom*, and *McRO*. We conclude none of Appellants' claims is "directed to an improvement in the functioning of a computer," as was found by the court regarding the subject claim in *Enfish*, 822 F.3d at 1338. To the extent that the recited steps or acts may be performed faster or more efficiently using a computer, our reviewing court provides applicable guidance:

> While the claimed system and method certainly purport to accelerate the process of analyzing audit log data, *the speed increase comes from the capabilities of a general-purpose computer, rather than the patented method itself. See Bancorp Servs., L.L.C. v. Sun Life Assurance Co. of Can. (U.S.)*, 687 F.3d 1266, 1278 (Fed. Cir. 2012) ("[T]he fact that the required calculations could be performed *more efficiently* via a computer does not materially alter the patent eligibility of the claimed subject matter.").

FairWarning IP, LLC v. Iatric Sys., Inc., 839 F.3d 1089, 1095 (Fed. Cir. 2016) (emphasis added). *See also Electric Power Grp.,* 830 F.3d 1350 (Fed. Cir. 2016), to the extent that Appellants' claims similarly collect information, analyze it in some fashion, and present or communicate the result.

Applying this reasoning to Appellants' claims on appeal, we similarly find any purported faster or more efficient performance of the claimed steps or acts merely comes from the capabilities of a general-purpose computer and/or computer related elements, rather than from Appellants' claimed steps or functions.

Appellants' reliance on *DDR* is unpersuasive because the claims provide no improvement of the operation of a computer system commensurate with improvement to computer technology, and there is no ordered arrangement set forth which is non-conventional. The Specification supports the view that the elements recited in the claims are conventional. *See, e.g.,* Spec. ¶¶ 23–29 and 118–122. In *DDR*, the claims at issue involved, *inter alia*, "web page[] displays [with] at least one active link associated with a commerce object associated with a buying opportunity of a selected one of a plurality of merchants." *DDR Holdings, LLC v. Hotels.com, L.P.*, 773 F.3d 1245, 1249 (Fed. Cir. 2014) (claim 19 of US 7,818,399). The Federal Circuit found the claims in *DDR* to be patent eligible under step two of the *Mayo/Alice* test because "the claimed solution is necessarily rooted in computer technology in order to overcome a problem specifically arising in the realm of computer networks." *Id.* at 1257. Specifically, the Federal Circuit found the claims addressed the "challenge of retaining control over the attention of the customer in the context of the Internet." *Id.* at 1258. The rejected claims are dissimilar to *DDR*'s web page with an active link, and the Specification does not support the view that the computer related claim elements are unconventional, *supra*.

The claims before us are dissimilar to *McRO's* technical improvement because, in contrast to *McRO*, these claims cover a process that was

previously performed in the same way by humans. *McRO, Inc. v. Bandai Namco Games Am. Inc.,* 23 F. Supp. 3d 1113 (Fed. Cir. 2013*).*

We additionally conclude Appellants' claims are analogous to the method claim considered by the court in *Electric Power Group, LLC v. Alstom S.A.*, 830 F.3d 1350 (Fed. Cir. 2016), at least to the extent that Appellants' claims are similarly directed to "merely selecting information, by content or source, for collection, analysis, and display [which] does nothing significant to differentiate a process from ordinary mental processes." *Id.* at 1355. The claims do not require any nonconventional computer or network components, or even a "non-conventional and non-generic arrangement of known, conventional pieces," but merely call for performance of the claimed information collection, analysis, and display functions on generic computer components and display devices. *Id.*

Applying the first step of *Alice*, we agree with the Examiner that the claims are directed to the identified abstract idea. In addition, we agree the Examiner has considered the abstract ideas in the aggregate. Accordingly, we find that the claims are directed to a patent-ineligible concept.

Having determined that the claims are directed to a patent-ineligible concept, step 2 of the analysis considers whether the claims contain an inventive concept such as additional limitations that add significantly more to the claim so that it does not fully cover the abstract idea itself. *See Alice,* 134 S. Ct. at 2357. Here, we agree with the Examiner that no inventive concept is present. Moreover, the hardware features are the type of generic element that has been determined to be insufficient by the Supreme Court to transform a patent-ineligible claim into one that is patent-eligible. *See Alice*, 134 S. Ct. at 2358. The claims include no limitations that prevent it from

covering the abstract idea itself. Therefore, we are unpersuaded by Appellants' argument that the claims constitute an inventive concept that is significantly more than a patent on the patent-ineligible concept.

Regarding preemption, "[w]hile preemption may signal patent ineligible subject matter, the absence of complete preemption does not demonstrate patent eligibility. . . . Where a patent's claims are deemed only to disclose patent ineligible subject matter under the *Mayo* framework, as they are in this case, preemption concerns are fully addressed and made moot." *Ariosa Diagnostics, Inc. v. Sequenom, Inc.*, 788 F.3d 1371, 1379 (Fed. Cir. 2015); *see also OIP Techs. Inc. v. Amazon.com, Inc.*, 788 F.3d 1359, 1362–63 ("that the claims do not preempt all price optimization or may be limited to price optimization in the e-commerce setting do not make them any less abstract").

In view of the above, we sustain the rejection of claim 1, and independent claims 10 and 21 which are commensurate in scope with claim 1. We also sustain the rejection of dependent claims 2–9, 11–18, and 22 as these claims are not argued separately. *See* 37 C.F.R. § 41.37(c)(1)(iv).

The § 103 Rejections

Appellants argue the Examiner errs in finding the combination of Tuoriniemi, Bishop, Mashinsky, and McGrath teaches the claim 1 limitations, and that one of ordinary skill in the art would have combined the references. App. Br 23–33; Reply Br. 10–18. Appellants also argue, regarding the rejection of dependent claims 5 and 14, that Grigg is non-analogous art. App. Br. 34–35; Reply Br. 18–19.

The Examiner finds Tuoriniemi teaches a computerized system for operating a network service transport system. Final Act. 8–9 (citing Tuoriniemi ¶¶ 47–60, 68–79; Figs. 5a–8d). The Examiner finds Bishop discloses "(iii) information corresponding to a fare for the transport request, the information including the fare adjustment that is determined for the given duration in response to the user input." *Id.* at 9–10). The Examiner refers to Mashinsky for "determining a fare adjustment over a given duration for a geographic region that includes a current location of the user, wherein determining the fare adjustment includes determining a fare adjustment . . . ." *Id.* at 10–11 (citing Mashinsky ¶¶ 24–31, 33–42). In particular, the Examiner finds Mashinksy teaches a fare is determined based on the number of taxi and customer requests available, the system monitors the availability of service providers through GPS tracking and receives transport request through internet connection. *Id.* at 11.

The Examiner refers to McGrath's teaching wherein:

> McGrath discloses prior to communicating information about the transport request to any provider in the group of providers, providing data for the one or more confirmation user interfaces to display information corresponding to the transport request before the user transmits confirmation of the transport request to secure a provider for the transport request and upon receiving the confirmation from the user, communicating information about the transport request to one or more providers of the group and upon receiving the confirmation from the user, communicating information about the transport request to one or more providers of the group (fig. 11, paragraph 0140–144, validating the transport request details before submitting the request to the service providers).

Id. at 12.

The Examiner's basis for combining Tuoriniemi and Bishop is:

> [Because] the claimed invention is merely a combination of old elements, and in the combination each element merely would have performed the same function as it did separately, and one of ordinary skill in the art would have recognized that the results of the combination were predictable in order to request transportation services from one or more transportation service providers.

Id. at 10.

The Examiner presents a similar analysis for the further combinations with Mashinsky and McGrath. *Id.* at 11–13. Regarding the combination with Mashinsky, the Examiner adds one of ordinary skill in the art would have recognized that the results of the combination were predictable in order to facilitate a better taxi experience. *Id.* at 11–12. Regarding the combination with McGrath, the Examiner adds one of ordinary skill in the art would have recognized that the results of the combination were predictable in order to broker commuter transactions initiated by individuals. *Id.* at 12–13.

Appellants argue Mashinsky (and any of the other cited references) does not teach "determining the fare adjustment based on input that identifies each of the group of providers and the group of customers" because Mashinsky teaches users and taxis bid and settle on a price. App. Br. 24–25 (citing Mashinsky ¶¶ 3, 11, 23, 24, 28, 29, 30 34, 39, 42). Appellants argue Mashinsky does not teach "establishing a secure communication link with . . ." because "Mashinsky is entirely silent on a 'secure communication link.'" *Id.* at 26–27. Appellants argue Bishop does not teach "information corresponding to a fare for the transport request, the information including the fare adjustment that is determined for the given duration in response to the user input" because the Examiner does not

explain how Bishop's bid from transportation services meets the claim limitation and, moreover, Bishop does not teach any "fare adjustment that is determined for the given duration in response to the user input." *Id.* at 27–28.

Appellants argue the Examiner errs in combining the cited references because there is inadequate articulated reasoning lacking some rational underpinnings to support the legal conclusion of obviousness, particularly the failure of the Examiner to explain why one of ordinary skill in the art would have been motivated to make the combinations. *Id.* at 28–29 (citing *KSR Int'l v. Teleflex Inc.*, 550 U.S. 398, 418 (2007). In particular, Appellants argue the Examiner's findings that the references *could* be combined is not sufficient as it does not provide a basis for why the references *would* be combined. *See, e.g.*, *Id.* at 29–30.

In the Answer, the Examiner finds Mashinsky explicitly discloses a plurality of taxi drivers are provided with a computer having a GPS monitor and wireless communication in their automobile. Ans. 11–13 (citing Mashinsky ¶¶ 24, 26, 28, 29, 30). The Examiner finds a person of ordinary skill in the art would understand that a central system collects the location data of each of the plurality of taxi automobiles and the requests for a transport service from taxi customers in order to match taxi customers with the appropriate taxi automobile. *Id.* at 13. The Examiner interprets each of the location data of the taxi automobile and the request for a transport service from the taxi customer (which includes starting position of the customer) as an input into the system that identifies each one of the taxi drivers and taxi customers, respectively. *Id.* The Examiner finds Mashinsky teaches that supply and demand considerations are taken into consideration

by the system in establishing pricing information. *Id.* at 14 (citing Mashinsky ¶ 29).

According to the Examiner:

> in order to take supply and demand into consideration to establish pricing information, a person of ordinary skill in the art would understand that the system **takes into consideration** "the location data of the taxi drivers as **the supply data** and "the transport requests presented by the taxi customers" as **the demand data**.

Id. at 14. Because the Examiner interprets each of the location data of the taxi drivers and the transport request presented by the taxi customers as an input identifying each of the taxi drivers and taxi customers respectively, the Examiner finds a person of ordinary skill in the art would understand that the supply and demand considerations for establishing a price in Mashinsky are based on these inputs in the system. *Id.*

The Examiner alternatively identifies Mashinsky's teaching that "an estimated route distance and travel time of the trip requested by the customer may be calculated. Then, the **cost of the trip for cars charging based on distance traveled can be compared with cars charging for travel time**." *Id.* (citing Mashinsky ¶ 30). The Examiner then finds:

> It is implicit that in order to calculate the estimated route distance and travel time of the trip requested by each one of the customers, the location data of the cars, the starting position and ending position included in each one of the customer's request are taken as **inputs** by the system in order to calculate the estimate travel distance and time of the trip. Once the travel time and distance are calculated based on those **inputs**, a cost is calculated based on the travel time and distance. Therefore, a cost, interpreted here by the Examiner as fare adjustment, is determined based on inputs identifying the taxi drivers (i.e. location data of taxi drivers) and customers (i.e. transportation requests including a starting and ending position of a trip).

Id. at 14–15.

Regarding "establishing a secure communication link with . . . ," the Examiner finds the claim does not specify how or which method is used to secure the communication link. *Id.* 15–16. The Examiner finds:

> [i]n view of the broad scope of the "secure" limitation in the claim and the fact that, Mashinsky, as shown above, teaches that the taxi drivers and taxi customers use their wireless devices via the internet to connect to the main server, a person of ordinary skill in the art would understand that it is implicit within the teaching of Mashinsky that an internet connection is a secure communication link between the wireless devices of the taxi drivers, the taxi customers and the main server.

Id. at 16.

Regarding Bishop, the Examiner finds Bishop teaches a taxi customer inputting starting and ending position of a trip and, based on these inputs, the taxi customer receives monetary bids from taxi service providers to compete for the taxi customer's business. *Id.* at 16. The Examiner interprets bids as fare adjustment because a bid and fare adjustment are both a representation of monetary value and this fare adjustment is determined based on the given duration that it will take the service provider to travel from the starting to the ending position inputted by the customer. *Id.* (citing Bishop ¶ 48).

Regarding the combination of the references, the Examiner refers to multiple rationales provided by *KSR*, including combining prior art elements according to known methods to yield predictable results. *Id.* at 16–22 (citing *KSR Int'l v. Teleflex Inc.*, 550 U.S. 398, 418 (2007).

Regarding dependent claims 5 and 14, which address allowing the user to modify financial account information, the Examiner refers to Grigg's teaching of an electronic page on a mobile device which allows a user to change/add/delete/modify his/her financial account information. *Id.* 22–23

(citing Grigg ¶ 74). The Examiner finds Grigg is analogous art because it is reasonably pertinent to the problem faced by the inventor. *Id.*

In the Reply Brief, Appellants argue "nothing in Mashinsky or any of the other references suggests that 'location data' and 'transport requests' may be considered as 'supply data' and 'demand data,' respectively" and "[t]hus, it is not surprising that Mashinksy does not disclose any 'fare adjustment' *determined based on* the 'location data' or the 'transport requests.'" Reply Br. 12–13. Appellants argue one of ordinary skill in the art would not modify Mashinsky as suggested by the Examiner because Mashinsky already teaches a bidding system and would render Mashinsky inoperable. *Id.* at 13–15. Regarding a "secure communication" Appellants argue "[o]ne of ordinary skill in the art would instead understand that an internet connection, without more, is inherently not secure." *Id.* at 16. Appellants argue the Examiner's interpretation of "bids as fare adjustment because a bid and fare adjustment are both a representation of monetary value" is incorrect because "a bid in an auction process is not a 'fare adjustment.'" *Id.* at 17 (citing Bishop ¶ 9). Appellants argue, regarding dependent claims 5 and 14, that Grigg is non-analogous art because the Examiner has not shown it is pertinent to the *entire* problem solved by the claimed invention. *Id.* at 18–19 (citing *In re Klein*, 647 F.3d 1343, 1348 (Fed. Cir. 2011).

We are not persuaded by Appellants' arguments and agree, instead, with the Examiner's findings, claim interpretation, and conclusions. On the record before us, we find no persuasive arguments that the Examiner's findings and claim interpretations are unreasonable, overbroad, or inconsistent with Appellants' Specification. Here, the phrases "fare adjustment," "determining a fare adjustment," and "secure communication

link" are not explicitly defined and Appellants' arguments are based on unreasonably narrow claim interpretations. Applying a broad, but reasonable claim interpretation, we agree with the Examiner that the combination of the cited references teaches the claim 1 limitations, including the disputed limitations. Claim terms in a patent application are given the broadest reasonable interpretation consistent with the specification, as understood by one of ordinary skill in the art. *In re Crish*, 393 F.3d 1253, 1256 (Fed. Cir. 2004).

Moreover, Appellants argue the references individually while the rejection is based on the combination of the teachings of the cited references. *In re Keller*, 642 F.2d 413, 426 (CCPA 1981) ("[O]ne cannot show non-obviousness by attacking references individually where, as here, the rejections are based on combinations of references." (citations omitted)); *In re Merck & Co.*, 800 F.2d 1091, 1097 (Fed. Cir. 1986).

Appellants also argue an unreasonably narrow teaching of the cited references and an overly demanding standard of obviousness.

> The test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art.

Keller, 642 F.2d at 425.

Here, the Examiner provides sufficient evidence as required for obviousness. As stated by the Supreme Court, the Examiner's obviousness rejection must be based on:

> [S]ome articulated reasoning with some rational underpinning to support the legal conclusion of obviousness. . . . [H]owever, the

> analysis need not seek out precise teachings directed to the specific subject matter of the challenged claim, for a court can take account of the inferences and creative steps that a person of ordinary skill in the art would employ.

KSR Int'l Co. v. Teleflex Inc., 550 U.S. 398, 418 (2007) (quoting *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006)).

The Examiner's findings are reasonable because the skilled artisan would "be able to fit the teachings of multiple patents together like pieces of a puzzle" since the skilled artisan is "a person of ordinary creativity, not an automaton." *KSR*, 550 U.S. at 420–21.

Based upon the teachings of the references and the fact that each claimed element was well-known in the art, we agree with the Examiner because the combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results. *Id.* at 415–16. We note Appellants present no persuasive arguments that the results are unpredictable. Moreover, as discussed *supra*, the Examiner additionally provided reasons why one of ordinary skill in the art would combine each of the references in the manner suggested.

Furthermore, on this record, Appellants do not present sufficient or persuasive evidence that the combination of the cited references was "uniquely challenging or difficult for one of ordinary skill in the art" or "represented an unobvious step over the prior art." *Leapfrog Enters., Inc. v. Fisher-Price, Inc.*, 485 F.3d 1157, 1162 (Fed. Cir. 2007) (citing *KSR*, 550 U.S. at 419–21). Nor have Appellants provided objective evidence of secondary considerations, which our reviewing court guides "operates as a beneficial check on hindsight." *Cheese Sys., Inc. v. Tetra Pak Cheese & Powder Sys., Inc.*, 725 F.3d 1341, 1352 (Fed. Cir. 2013).

Regarding the rejection of dependent claims 5 and 14, we are not persuaded by Appellants' argument that Grigg is non-analogous art because, on the record before us, it is not disputed that Grigg is pertinent to the problem of allowing the user to change/add/delete/modify financial account information, and that is sufficient. Therefore, we sustain the rejection of claims 5 and 14.

In view of the above, we sustain the rejection of claim 1, and independent claims 10 and 21 as these claims are argued together with claim 1. We sustain the rejection of dependent claims 5 and 14 *supra*, and dependent claims 2–4, 6–9, 11–18, and 22 as these claims are not argued separately. *See* 37 C.F.R. § 41.37(c)(1)(iv).

DECISION

We affirm the Examiner's decision rejecting claims 1–18, 21, and 22 under 35 U.S.C § 101.

We affirm the Examiner's decision rejecting claims 1–18, 21, and 22 under 35 U.S.C § 103(a).

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). *See* 37 C.F.R. § 41.50(f).

AFFIRMED