UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
14/610,605	01/30/2015	Matthew Hurewitz	1060.041US1	7829

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SCHWEGMAN LUNDBERG & WOESSNER, P.A.
P.O. BOX 2938
MINNEAPOLIS, MN 55402

EXAMINER
ANDREI, RADU

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PTOL-90A (Rev. 04/07)

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

_____

Ex parte MATTHEW HUREWITZ and
WILLIAM DON WORTLEY[1]

_____

Appeal 2018-002675
Application 14/610,605
Technology Center 3600

_____

Before JENNIFER S. BISK, LARRY J. HUME, and
JULIET MITCHELL DIRBA, *Administrative Patent Judges.*

BISK, *Administrative Patent Judge.*

DECISION ON APPEAL

This is a decision on appeal under 35 U.S.C. § 134(a) of the Final
Rejection of claims 1, 3–11, and 13–24, which are all claims pending in the
application. Appellants have canceled claims 2 and 12. We have
jurisdiction under 35 U.S.C. § 6(b).

We reverse.

_____

BACKGROUND[2]

This application relates to "a beacon-based media network." Spec. Title. Claim 1, reproduced below, is illustrative of the subject matter on appeal):

> 1. A method for obtaining location-selected content for a user from a media content network, the method performed by a mobile computing device, and the method comprising:
>
> > [(1)] transmitting, from a first software application of the mobile computing device to a device tracking system, an identifier unique to the mobile computing device, wherein the device tracking system collects location data for the mobile computing device at a time that the mobile computing device is located within a tracked physical environment;
> >
> > [(2)] transmitting, from a second software application of the mobile computing device to a media content network system, the identifier unique to the mobile computing device, wherein the identifier is transmitted to the media content network system at a subsequent time that the mobile computing device is located outside of the tracked physical environment;
> >
> > [(3)] receiving, with the second software application of the mobile computing device from the media content network system, media content selected for the mobile computing device, wherein the media content network system selects the media content for the mobile computing device based on the identifier unique to the mobile computing device, wherein the media content network system further selects the media content for the

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[2] Throughout this Decision we have considered the Specification filed January 30, 2015 ("Spec."), the Final Rejection mailed April 20, 2017 ("Final Act."), the Appeal Brief filed October 19, 2017 ("Appeal Br."), the Examiner's Answer mailed November 29, 2017 ("Ans."), and the Reply Brief filed January 15, 2018 ("Reply Br.").

mobile computing device based on activity information of the user determined from the tracked physical environment by the device tracking system; and

[(4)] displaying the media content selected for the mobile computing device in the second software application, wherein the displaying of the media content in the second software application occurs at the subsequent time that the mobile computing device is located outside of the tracked physical environment;

[(5)] wherein the activity information of the user in the tracked physical environment is communicated from the device tracking system to the media content network system independently of the mobile computing device, and wherein the activity information of the user in the tracked physical environment is determined by the device tracking system based on the location data.

Appeal Br. 26 (Claims App'x) (limitation numbering added in brackets).

REJECTIONS

Claims 1, 3–11, and 13–24 stand rejected under 35 U.S.C. § 101 as being directed to patent-ineligible subject matter. Final Act. 3–9.

Claims 1, 3–11, and 13–24 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over the combination of US 9,204,251 B1, issued December 1, 2015 ("Mendelson") and US 2014/0274135 A1, published September 18, 2014 ("Edge"). Final Act. 9–25.

ANALYSIS

We review the appealed rejections for error based upon the issues identified by Appellants, and in light of the arguments and evidence produced thereon. *Ex parte Frye*, 94 USPQ2d 1072, 1075 (BPAI 2010) (precedential). To the extent Appellants have not advanced separate,

substantive arguments for particular claims, or other issues, such arguments are waived. 37 C.F.R. § 41.37(c)(1)(iv).

We have considered all of Appellants' arguments and any evidence presented. We highlight and address specific findings and arguments for emphasis in our analysis below.

Rejection of Claims 1, 3–11, and 13–24 under 35 U.S.C. § 103

The Examiner rejects claims 1, 3–11, and 13–24 under 35 U.S.C. § 103 as obvious over a combination of Mendelson and Edge. Final Act. 9– 25. Based on Appellants' arguments (Appeal Br. 20–24; Reply Br. 6–7) and our discretion under 37 C.F.R. § 41.37(c)(1)(iv), we decide the appeal of this rejection on the basis of representative claim 1.

Appellants argue "[t]he Examiner has not established the obviousness of two separate software applications operating on a mobile computing device" as claimed. Appeal Br. 22. According to Appellants, the Examiner points to the same cited material as disclosing both the "first software application" limitation[3] and the "transmitting, from a second software application" limitation[4], but does not explain how Mendelson supports two separate software applications. *Id.* at 21 (citing Final Act. 9–10 (citing Mendelson 32:3–15)). Appellants add that the Examiner's explanation that Mendelson does not disclose transmitting from a second software application, but "[i]t would have been obvious to one having ordinary skill

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[3] "transmitting, from a first software application of the mobile computing device to a device tracking system, an identifier unique to the mobile computing device . . ."

[4] "transmitting, from a second software application of the mobile computing device to a media content network system, the identifier unique to the mobile computing device . . ."

in the art at the time of filing to transmit the mobile device ID not only
[from] the first, but also from the second application, since it has been held
that mere duplication of the essential steps of a process involves only routine
skill in the art," shows that "the Examiner does not understand that there is a
difference" between the two claimed software applications. *Id.* (quoting
Final Act. 16). In fact, Appellants contend that "[t]he specific transmission
sequence of the identifier is not a 'mere duplication,' it is integral to the
operation of the recited technique and is not shown by any of the cited
references." *Id.*

The Examiner responds that "Mendelson discloses one software
application operating on a mobile computing device used for both tracking
and media content" and a person of ordinary skill would have found it
obvious to have that functionality in two separate applications on the mobile
device because "constructing a formerly integral structure in various
elements involves only routine skill in the art." Ans. 11.

Based on the record before us, we agree with Appellants that the
Examiner has not adequately explained how the cited portions of Mendelson
teach or suggest the transmitting from a second software application
limitation. The Examiner's conclusory statement that "mere duplication of
the essential steps of a process involves only routine skill in the art," (Final
Act. 16) does not take into consideration the differences between the two
recited software applications. For example, the claim language makes clear
that the identifier is sent by the second software application "at a subsequent
time that the mobile computing device is located outside of the tracked
physical environment." Final Act. 22. For this portion of the limitation, the
Examiner explains that Mendelson discusses "deliver[ing] more content

(advertising) to the user when he approaches the store (reads on outside the mapped area)." Final Act. 10. There are several deficiencies in this explanation. In particular, the cited portions of Mendelson do not teach or suggest (1) an identifier is sent as the user approaches the store, (2) a *second* software application is involved at any point, and (3) the content is delivered at a *subsequent time* to the location tracking. The Examiner does not sufficiently explain why or how a person of ordinary skill in the art would find obvious these differences between Mendelson's disclosure and the claimed language. *See* Final Act. 9–25; Ans. 11–14.

Moreover, the authorities the Examiner relies upon for the conclusion that it would have been obvious to use two software applications instead of one are not applicable here. Final Act. 16 (citing *St. Regis Paper Co. v. Bemis Co.*, 549 F.2d 833 (7th Cir. 1977) (holding obvious claims reciting the feature of adding multiple layers to a bag consisting of known elements); *In re Harza*, 274 F.2d 669 (CCPA 1960) (finding obvious claims to a structure who's "only distinction to be found [over the prior art] is in the recitation . . . of a plurality of ribs" where the prior art showed one rib); Ans. 11 (citing *In re Dulberg*, 289 F.2d 522, 523 (CCPA 1961) (holding claims to a lipstick holder unpatentable because "[i]f it were considered desirable for any reason to obtain access to the end of [the prior art's] holder to which the cap is applied, it would be obvious to make the cap removable for that purpose") ; *Nerwin v. Erlichman* 168 USPQ 177 (BPAI 1969) (finding claims reciting "a non-camera photographic apparatus and also a camera" obvious even though a divider structure was made of two, as opposed to one, elements);

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MPEP[5] § 2144.04 V.C.) (titled "Making Separable" and quoting *In re Dulberg*).

More relevant to this situation are the cases that make clear "[t]he separate naming of two structures in the claim strongly implies that the named entities are not one and the same structure." *HTC Corp. v. Cellular Commc'ns Equip. LLC*, 701 Fed. App'x 978, 982 (Fed. Cir. 2017) (citing *Becton, Dickinson & Co. v. Tyco Healthcare Grp., LP*, 616 F.3d 1249, 1254 (Fed. Cir. 2010); *Gaus v. Conair Corp.*, 363 F.3d 1284, 1288 (Fed. Cir. 2004)). Here, the claims plainly recite two different structures: a first software application and a second software application. The implication, therefore, is that the two applications are separate. The Specification reinforces this inference by describing several embodiments, one of which explicitly incorporates "multiple mobile software applications." Spec. Fig. 4B, ¶¶ 9, 20, 51–54. Because other embodiments are described without the use of multiple software applications, the applicant was clearly aware of the difference and intended to emphasize the use of multiple software applications in the claimed subject matter. *See* Spec. Figs. 3, 4A, ¶¶ 42–50. Based on the Specification's explicit description of an embodiment using multiple software applications and the claim's clear language including the same, the invention requires two separate software applications. As explained above, the Examiner's bare conclusion that it would be obvious to modify Mendelson to include a second software application is not sufficient to demonstrate obviousness of the second software application required by the claim. Accordingly, we do not sustain the Examiner's § 103 rejection of claim 1, or grouped claims 3–11 and 13–24, which stand therewith.

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[5] Manual of Patent Examining Procedure.

Because this determination resolves the § 103 rejection for all pending claims, we need not address Appellants' other arguments regarding Examiner error. *See, e.g., Beloit Corp. v. Valmet Oy*, 742 F.2d 1421, 1423 (Fed. Cir. 1984) (explaining that an administrative agency may render a decision based on "a single dispositive issue").

Rejection of Claims 1, 3–11, and 13–24 under 35 U.S.C. § 101

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

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The Patent Office recently issued guidance regarding this framework. *See* USPTO, *2019 Revised Patent Subject Matter Eligibility Guidance*, 84 Fed. Reg. 50 (Jan. 7, 2019) ("Revised Guidance"). Under the Revised Guidance, to decide whether a claim is "directed to" an abstract idea, we evaluate whether the claim (1) recites subject matter falling within an abstract idea grouping listed in the Revised Guidance and (2) fails to integrate the recited abstract idea into a practical application. *See* Revised Guidance, 84 Fed. Reg. at 51. If the claim is "directed to" an abstract idea, as noted above, we then determine whether the claim recites an inventive concept. The Revised Guidance explains that when making this determination, we should consider whether the additional claim elements add "a specific limitation or combination of limitations that are not well-understood, routine, conventional activity in the field" or "simply append[] well-understood, routine, conventional activities previously known to the industry." Revised Guidance, 84 Fed. Reg. at 56.

For purposes of the § 101 rejection, Appellants argue claims 1, 3–11, and 13–24 together as a group. *See* Appeal Br. 11–18; Reply Br. 2–6. Therefore, consistent with the provisions of 37 C.F.R. § 41.37(c)(1)(iv), we limit our discussion to independent claim 1.

The Judicial Exception—Abstract Idea

The Examiner determined the claims are directed towards the abstract idea of "a beacon-based media network." Final Act. 3–4; 27. For the reasons explained below, we agree that the claims recite an abstract idea.

As quoted and enumerated above, claim 1 includes four main limitations. These limitations recite, in part, the following steps: *transmitting* an identifier to a tracking system and to a media content system

(limitations (1) and (2)) in order to choose media content based on the user's activity (limitations (3) ("media content selected") and (4) ("activity information of the user in the tracked physical environment is communicated . . . [and] determined")). Appeal Brief 26 (Claims App'x); *see also* Spec. ¶ 16 ("These customer activities are tracked and identified for correlation with subsequent content delivery from a media delivery system.").

According to the Specification, the invention overcomes various problems of "retailers of goods and services" such as the prior art's failure "to track or measure the interactions and type of activity that [tracked] customers have within particular sections of the store, or the specific items, brands, or types of products that a particular customer is interested in." *Id.* ¶¶ 3–4. "[T]he described techniques enable a commercial entity (e.g., a retailer) to collect and process useful commerce information from the activity of individual users that occurs in a store or other retail environment" and that information may be used "for the retrieval and delivery of other information, such as advertisements and other media content, which are selected on the basis of certain types of real-world customer activities." *Id.* ¶ 16. Tracking user activity within a retail store and using that information to deliver certain media content fall within "advertising, marketing, or sales activities." Revised Guidance, 84 Fed. Reg. at 52.

Limitations (1)–(4) together recite a business or commercial practice that is not meaningfully different from business and commercial practices that courts have determined are abstract ideas. *See, e.g., In re Salwan*, 681 F. App'x 938, 941 (Fed. Cir. 2017) (billing insurance companies and organizing patient health information); *Audatex N. Am., Inc. v. Mitchell Int'l, Inc.*, 703 F. App'x 986, 989 (Fed. Cir. 2017) (providing an automobile

insurance claim valuation through the collection and use of vehicle information); *Accenture*, 728 F.3d at 1344 (generating tasks to be performed in an insurance organization based on rules to be completed upon the occurrence of an event); *Bancorp Servs., L.L.C. v. Sun Life Assur. Co. of Canada (U.S.)*, 687 F.3d 1266, 1280 (Fed. Cir. 2012) (managing a stable value protected life insurance policy by performing calculations and manipulating the results).

Accordingly, we conclude the claims recite a certain method of organizing human activity identified in the Revised Guidance (i.e., a commercial interaction), and thus, an abstract idea.[6] Revised Guidance, 84 Fed. Reg. at 52, 53 (listing "[c]ertain methods of organizing human activity . . . commercial or legal interactions" as one of the "enumerated groupings of abstract ideas").

Integration of the Judicial Exception into a Practical Application

If a claim recites a judicial exception, we determine whether the recited judicial exception is integrated into a practical application of that

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[6] Our reviewing court recognizes that "[a]n abstract idea can generally be described at different levels of abstraction." *Apple, Inc. v. Ameranth, Inc.*, 842 F.3d 1229, 1240 (Fed. Cir. 2016). That need not and, in this case does not, "impact the patentability analysis." *Id.* at 1241. Further, "[a]n abstract idea can generally be described at different levels of abstraction. . . . The Board's slight revision of its abstract idea analysis does not impact the patentability analysis." *Id.* Moreover, merely combining several abstract ideas does not render the combination any less abstract. *RecogniCorp, LLC v. Nintendo Co.*, 855 F.3d 1322, 1327 (Fed. Cir. 2017) ("Adding one abstract idea (math) to another abstract idea . . . does not render the claim non-abstract."); *see also FairWarning IP, LLC v. Iatric Sys., Inc.*, 839 F.3d 1089, 1093–94 (Fed. Cir. 2016) (determining the pending claims were directed to a combination of abstract ideas).

exception by (a) identifying whether there are any additional elements recited in the claim beyond the judicial exception(s); and (b) evaluating those additional elements individually and in combination to determine whether they integrate the exception into a practical application. If the recited judicial exception is integrated into a practical application, the claim is not directed to the judicial exception.

Here, claim 1 recites the additional elements of "first" and "second software application[s]," "the device tracking system collects location data for the mobile computing device at a time that the mobile computing device is located within a tracked physical environment," "wherein the identifier is transmitted to the media content network system at a subsequent time that the mobile computing device is located outside of the tracked physical environment." Appeal Br. 26 (Claims App'x).

For the reasons discussed below, we conclude these additional limitations integrate the abstract idea into a practical application as determined under at least one of the relevant MPEP sections.[7] Specifically, these limitations recite that the device tracking system collects location data of a mobile computing device and, when that device has left the tracked physical environment, sends an identifier to a content media system.

These limitations contribute to the claims such that they are analogous to the claims found to encompass patentable subject matter in *Diamond v. Diehr*, 450 U.S. 175, 185 (1981), *and Classen Immunotherapies, Inc. v.*

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[7] *See* MPEP § 2106.05(a)–(c), (e)–(h). Citations to the MPEP herein refer to revision [R-08.2017]. Sections 2106.05(a), (b), (c), and (e) are indicative of integration into a practical application, while sections 2106.05(f), (g), and (h) relate to limitations that are not indicative of integration into a practical application.

Biogen IDEC, 659 F.3d 1057 (Fed. Cir. 2011) (decision on remand from the Supreme Court, which had vacated the lower court's prior holding of ineligibility in view of *Bilski v. Kappos*). In *Diehr*, the Court evaluated the additional non-abstract limitations, and found them to be meaningful, because they sufficiently limited the use of the (abstract idea) mathematical equation to the practical application of molding rubber products. MPEP § 2106.05(e) (citing *Diehr*, 450 U.S. at 184, 187). In *Classen*, the Court held that, although the analysis step was an abstract mental process that collected and compared known information, the (practical application) immunization step was meaningful because it integrated the results of the analysis into a specific and tangible method that resulted in the method "moving from abstract scientific principle to specific application." MPEP § 2106.05(e) (citing *Classen*, 659 F.3d at 1066–68).

Similarly, we find that the limitations discussed above, that require the physical tracking of the location of a device, sufficiently limit the use of the abstract idea encompassed by the other limitations to the specific and tangible application of tracking a mobile device although physically located in a particular area, such as a retail store, and notifying another entity after the device has left that particular area. Accordingly, we conclude, when the claim is considered as a whole, the recited judicial exception is integrated into a practical application as determined under MPEP § 2106.05(e) cited above, such that the claim is patent-eligible, thus concluding the eligibility analysis.

Accordingly, based upon the findings and legal conclusions above, on this record and in consideration of the Revised Guidance, we are persuaded

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
16/712,564	12/12/2019	Matthew Hurewitz	1060.041US2	4222

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P.O. BOX 2938
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Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTHS FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☑ Responsive to communication(s) filed on 12/12/2019.
  ☐ A declaration(s)/affidavit(s) under **37 CFR 1.130(b)** was/were filed on _____.
2a)☐ This action is **FINAL.**   2b) ☑ This action is non-final.
3)☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on _____; the restriction requirement and election have been incorporated into this action.
4)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims*

5) ☑ Claim(s) 25-49 is/are pending in the application.
    5a) Of the above claim(s) _____ is/are withdrawn from consideration.
6) ☐ Claim(s) _____ is/are allowed.
7) ☑ Claim(s) 25-49 is/are rejected.
8) ☐ Claim(s) _____ is/are objected to.
9) ☐ Claim(s) _____ are subject to restriction and/or election requirement

* If any claims have been determined allowable, you may be eligible to benefit from the **Patent Prosecution Highway** program at a participating intellectual property office for the corresponding application. For more information, please see http://www.uspto.gov/patents/init_events/pph/index.jsp or send an inquiry to **PPHfeedback@uspto.gov.**

Application Papers

10)☐ The specification is objected to by the Examiner.
11)☑ The drawing(s) filed on 12/12/2019 is/are: a)☑ accepted or b)☐ objected to by the Examiner.
    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  Certified copies:
    a)☐ All   b)☐ Some**   c)☐ None of the:
      1.☐ Certified copies of the priority documents have been received.
      2.☐ Certified copies of the priority documents have been received in Application No. _____.
      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

** See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☑ Notice of References Cited (PTO-892)   3) ☐ Interview Summary (PTO-413)
                                                                Paper No(s)/Mail Date _____.
2) ☑ Information Disclosure Statement(s) (PTO/SB/08a and/or PTO/SB/08b)   4) ☐ Other: _____.
    Paper No(s)/Mail Date 4/13/2020 and 4/13/2020.

DETAILED ACTION

The present application, filed on 12/12/2019 is being examined under the AIA first inventor to file provisions.

The following is a non-final First Office Action on the Merits. Claims 25-49 are pending and have been considered below.

Priority

This application is a CON of 14/610,605 01/30/2015 PAT 10542380. The priority is acknowledged.

Continuation

This application is a CON of 14/610,605 01/30/2015 PAT 10542380. In accordance with MPEP §609.02 *A.* 2 and MPEP §2001.06(b) (last paragraph), the Examiner has reviewed and considered the prior art cited in the Parent Application(s). Also in accordance with MPEP §2001.06(b) (last paragraph), all documents cited or considered 'of record' in the Parent Application are now considered cited or 'of record' in this application. Additionally, Applicant(s) are reminded that a listing of the information cited or 'of record' in the Parent Application need not be resubmitted in this application unless Applicants desire the information to be printed on a patent issuing from this application. See MPEP §609.02 *A.* 2. Finally, Applicants are reminded that the prosecution history of the Parent Application is relevant in this application. See *e.g., Microsoft Corp. v. Multi-Tech Sys., Inc.,* 357 F.3d 1340, 1350, 69 USPQ2d 1815, 1823 (Fed. Cir. 2004) (holding that statements made in prosecution of one patent are relevant to the scope of all sibling patents).

Information Disclosure Statement (IDS)

The information disclosure statement (IDS) submitted on 4/13/2020 and 4/13/2020 is in compliance with the provisions of 37 CFR 1.97. Accordingly, such IDS is being considered by Examiner.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper time wise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., In re Berg, 140 F.3d 1428,46 USPQ2d 1226 (Fed. Cir. 1998); In re Goodman, 11 F.3d 1046,29 USPQ2d 2010 (Fed. Cir. 1993); In re Longi, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); In re Van Omum, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); In re Vogel/,422 F.2d 438,164 USPQ 619 (CCPA 1970); and, In re Thorington, 418 F.2d 528,163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 25, 35, 45 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1, 11, 18 of patent 10, 542,380 . Although the conflicting claims are not identical, they are not patentably distinct from each other because the Application's independent claims 25, 35, 45 read on the patent independent claims 1, 11, 18 respectively. The three claims recite a method, a computer software product and an apparatus respectively.

The equivalent pairs recite equivalent steps as follows:

a) "communicating," "communicating," obtaining," "outputting" in the application are not patentably distinct from "transmitting," "transmitting," "receiving," "displaying" in the patent.

b) "communicate," "communicate," obtain," "output" in the application are not patentably distinct from "detect," "detect," "transmit," "receive" in the patent.

c) "providing," "obtaining," providing," "outputting" in the application are not patentably distinct from "transmit," "transmit," "retrieve," "display" in the patent.

The additional limitation makes the claim narrower (species), which reads on broad (genus). See MPEP 2144.08 – In re Jones, 958 F.2d 347, 350, 21 USPQ2d 1941, 1943 (Fed. Cir. 1992) (Federal Circuit has "decline[d] to extract from Merck [& Co. v. Biocraft Laboratories Inc., 874 F.2d 804, 10 USPQ2d 1843 (Fed. Cir. 1989)]. Therefore, the double patenting rejection still is appropriate in this case.

Claim Interpretation

The following is a quotation of 35 U.S.C. 112(f):

(f) Element in Claim for a Combination. – An element in a claim for a combination may be expressed as a means or step for performing a specified function without the recital of structure, material, or acts in support thereof, and such claim shall be construed to cover the corresponding structure, material, or acts described in the specification and equivalents thereof.

The claims in this application are given their broadest reasonable interpretation using the plain meaning of the claim language in light of the specification as it would be understood by one of ordinary skill in the art. The broadest reasonable interpretation of a claim element (also commonly referred to as a claim limitation) is limited by the description in the specification when 35 U.S.C. 112(f) or pre-AIA 35 U.S.C. 112, sixth paragraph, is invoked.

As explained in MPEP § 2181, subsection I, claim limitations that meet the following three-prong test will be interpreted under 35 U.S.C. 112(f) or pre-AIA 35 U.S.C. 112, sixth paragraph:

(A)   the claim limitation uses the term "means" or "step" or a term used as a substitute for "means" that is a generic placeholder (also called a nonce term or a non-structural term having no specific structural meaning) for performing the claimed function;

(B)   the term "means" or "step" or the generic placeholder is modified by functional language, typically, but not always linked by the transition word "for" (e.g., "means for") or another linking word or phrase, such as "configured to" or "so that"; and

(C)   the term "means" or "step" or the generic placeholder is not modified by sufficient

structure, material, or acts for performing the claimed function.

Use of the word "means" (or "step") in a claim with functional language creates a

rebuttable presumption that the claim limitation is to be treated in accordance with 35 U.S.C.

112(f) or pre-AIA 35 U.S.C. 112, sixth paragraph. The presumption that the claim limitation is

interpreted under 35 U.S.C. 112(f) or pre-AIA 35 U.S.C. 112, sixth paragraph, is rebutted when

the claim limitation recites sufficient structure, material, or acts to entirely perform the recited

function.

Absence of the word "means" (or "step") in a claim creates a rebuttable presumption that

the claim limitation is not to be treated in accordance with 35 U.S.C. 112(f) or pre-AIA 35 U.S.C.

112, sixth paragraph. The presumption that the claim limitation is not interpreted under 35

U.S.C. 112(f) or pre-AIA 35 U.S.C. 112, sixth paragraph, is rebutted when the claim limitation

recites function without reciting sufficient structure, material or acts to entirely perform the

recited function.

Claim limitations in this application that use the word "means" (or "step") are being

interpreted under 35 U.S.C. 112(f) or pre-AIA 35 U.S.C. 112, sixth paragraph, except as

otherwise indicated in an Office action. Conversely, claim limitations in this application that do

not use the word "means" (or "step") are not being interpreted under 35 U.S.C. 112(f) or pre-AIA

35 U.S.C. 112, sixth paragraph, except as otherwise indicated in an Office action.

This application includes one or more claim limitations that do not use the word "means,"

but are nonetheless being interpreted under 35 U.S.C. 112(f) or pre-AIA 35 U.S.C. 112, sixth

paragraph, because the claim limitation(s) uses a generic placeholder that is coupled with

functional language without reciting sufficient structure to perform the recited function and the

generic placeholder is not preceded by a structural modifier. Such claim limitation(s) is/are:

"means for obtaining a location identifier and an identifier unique to a mobile computing device,"

"means for providing the identifier unique to the mobile computing device," "means for obtaining

content from the network content system," "means for providing the content selected for the

mobile computing device" in claim 45; "means for obtaining the location identifier" in claim 46;

"means for communicating" in claim 47; "means for obtaining network information" in claim 48.

Because this/these claim limitation(s) is/are being interpreted under 35 U.S.C. 112(f) or

pre-AIA 35 U.S.C. 112, sixth paragraph, it/they is/are being interpreted to cover the

corresponding structure described in the specification as performing the claimed function, and

equivalents thereof.

If applicant does not intend to have this/these limitation(s) interpreted under 35 U.S.C. 112(f) or pre-AIA 35 U.S.C. 112, sixth paragraph, applicant may: (1) amend the claim limitation(s) to avoid it/them being interpreted under 35 U.S.C. 112(f) or pre-AIA 35 U.S.C. 112, sixth paragraph (e.g., by reciting sufficient structure to perform the claimed function); or (2) present a sufficient showing that the claim limitation(s) recite(s) sufficient structure to perform the claimed function so as to avoid it/them being interpreted under 35 U.S.C. 112(f) or pre-AIA 35 U.S.C. 112, sixth paragraph.

Claim Rejections - 35 USC § 101

35 USC 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 25-49 are rejected under 35 USC 101 because the claimed invention is not directed to patent eligible subject matter. The claimed matter is directed to a judicial exception (i.e. an abstract idea not integrated into a practical application) without significantly more.

Per Step 1 and Step 2A of the two-step eligibility analysis, independent Claim 25, Claim 35 and Claim 45 and the therefrom dependent claims are directed respectively to a computer implemented method, to computer executable instructions stored on a non-transitory storage medium and to a system. Thus, on its face, each such independent claim and the therefrom dependent claims are directed to a statutory category of invention.

However, Claim 25, (which is repeated in Claims 35, 45) is rejected under 35 U.S.C. 101 because the claim is directed to an abstract idea, a judicial exception, without reciting additional elements that integrate the judicial exception into a practical application. The claim recites: obtaining content from the network content system; outputting the content selected for the mobile computing device. The limitations, as drafted, constitute a process that, under its broadest reasonable interpretation, covers commercial activity, but for the recitation of generic computer components. That is, the drafted process is comparable to an advertising, marketing, process, i.e. a process aimed at providing content (i.e. advertisements) to mobile computing devices. If a claim limitation, under its broadest reasonable interpretation, covers performance of limitations of agreements in form of contracts, legal obligations, advertising, marketing, sales activities or behaviors, business relationships, but for the recitation of generic computer components, then it falls within the "Certain Methods of Organizing Human Activity –

Commercial or Legal Interactions (e.g. agreements in form of contracts, legal obligations, advertising, marketing, sales activities or behaviors, business relationships)" grouping of abstract ideas. Accordingly, the claim recites an abstract idea.

This abstract idea is not integrated into a practical application. In particular, stripped of those claim elements that are directed to an abstract idea, (A) remaining elements of the independent claims are directed to: communicating a location identifier and a mobile device identifier; communicating the mobile device identifier to a content system. When considered individually, these additional claim elements are comparable to "receiving or transmitting data over a network, e.g., using the Internet to gather data", which has been recognized by a controlling court as "well-understood, routine and conventional computing functions" when claimed generically as they are in these dependent claims. (MPEP 2106.05(d) II) It is readily apparent that the claim elements are not directed to any specific improvements of the claims.

(B) Additional remaining claim elements are: the location identifier; the device tracking system; the mobile device identifier; the content network system; the outputting of the content; the activity information. While these descriptive elements may provide further helpful context for the claimed invention, they do not serve to integrate the abstract idea into a practical application.

(C) Finally, recited computing elements, i.e. machine-readable storage medium; mobile computing device are recited at a high-level of generality, i.e. as generic computing elements performing generic computer functions, like obtaining data, interpreting the obtained data and providing results, such that they amount to no more than mere instructions to apply the exception using generic computer components.

Accordingly, these additional claim elements do not integrate the abstract idea into a practical application, because: (1) they do not effect improvements to the functioning of a computer, or to any other technology or technical field (see MPEP 2106.05 (a)); (2) they do not apply or use the abstract idea to effect a particular treatment or prophylaxis for a disease or a medical condition (see the *Vanda* memo); (3) they do not apply the abstract idea with, or by use of, a particular machine (see MPEP 2106.05 (b)); (4) they do not effect a transformation or reduction of a particular article to a different state or thing (see MPEP 2106.05 (c)); (5) they do

not apply or use the abstract idea in some other meaningful way beyond generally linking the use of the identified abstract idea to a particular technological environment, such that the claim as a whole is more than a drafting effort designated to monopolize the exception (see MPEP 2106.05 (e) and the *Vanda* memo). Therefore, per Step 2A, Prong Two, the claim is directed to an abstract idea not integrated into a practical application.

(A) Step 2B of the eligibility analysis for the independent claims concludes that the claim does not include additional elements that are sufficient to amount to significantly more than the judicial exception. Stripped of those claim elements that are directed to an abstract idea, not integrated into a practical application, the remaining elements of the independent claims are directed to: communicating a location identifier and a mobile device identifier; communicating the mobile device identifier to a content system. When considered individually, these additional claim elements are comparable to "receiving or transmitting data over a network, e.g., using the Internet to gather data", which has been recognized by a controlling court as "well-understood, routine and conventional computing functions" when claimed generically as they are in these dependent claims. (MPEP 2106.05(d) II) It is readily apparent that the claim elements are not directed to any specific improvements of the claims.

(B) Furthermore, additional remaining elements of the independent claims contain descriptive limitations explaining the nature, structure and/or content of: the location identifier; the device tracking system; the mobile device identifier; the content network system; the outputting of the content; the activity information. However, these claim elements do not require any steps or functions to be performed and thus do not involve the use of any computing functions. While these descriptive elements may provide further helpful context for the claimed invention, these elements do not serve to confer subject matter eligibility to the claimed invention since their individual and combined significance is still not heavier than the abstract concepts at the core of the claimed invention.

(C) Finally, the recited computing elements of the independent claims are: machine-readable storage medium; mobile computing device. When considered individually, these additional claim elements serve merely to implement the abstract idea using computer components performing computer functions. They do not constitute "Improvements to the Functioning of a Computer or to Any Other Technology or Technical Field". (MPEP 2106.05(a))

It is readily apparent that the claim elements are not directed to any specific improvements of any of these areas.

When the <u>independent claims are considered as a whole, as a combination</u>, the claim elements noted above do not amount to significantly more, to any more than they amount to individually. The operations appear to merely apply the abstract concept to a technical environment in a very general sense – i.e. a computer receives information from another computer, processes that information and then sends a response based on processing results. The most significant elements of the claims, that is the elements that really outline the inventive elements of the claims, are set forth in the elements identified as an abstract idea. Therefore, it is concluded that the elements of the independent claims are directed to one or more abstract ideas and do not amount to significantly more. (MPEP 2106.05)

Further, Step 2B of the analysis takes into consideration <u>all dependent claims</u> as well, both individually and as a whole, as a combination.

Dependent Claim 26 (which is repeated in Claim 36) is not directed to any additional abstract ideas, but is directed to additional claim elements such as to: obtaining the location identifier from the source within the mapped physical environment. Dependent Claim 29 (which is repeated in Claims 39, 47) is not directed to any additional abstract ideas, but is directed to additional claim elements such as to: communicating location data. Dependent Claim 30 (which is repeated in Claims 40, 48) is not directed to any additional abstract ideas, but is directed to additional claim elements such as to: obtaining network information. When considered <u>individually</u>, these additional claim elements are comparable to "receiving or transmitting data over a network, e.g., using the Internet to gather data", which has been recognized by a controlling court as "well-understood, routine and conventional elements" when claimed generically as they are in these dependent claims. (see MPEP 2106.05(d) II) It is readily apparent that the claim elements are not directed to any specific improvements of the claims.

Dependent Claim 27 (which are repeated in Claims 37, 46), dependent Claim 28 (which are repeated in Claim 38), dependent Claim 31 (which are repeated in Claim 41), dependent Claim 32 (which are repeated in Claims 42, 49), dependent Claim 33 (which are repeated in Claim 43), dependent Claim 34 (which are repeated in Claim 44),are not directed to any abstract ideas and are not directed to any additional non-abstract claim elements. Rather, these

non-positively recited claims provide further descriptive limitations of elements, such as describing the nature, structure and/or content of: the source; the location identifier; the operating system, the software application; the mapped physical environment, the outputting of content; the location identifier; the content; the message. However, these elements do not require any steps or functions to be performed and thus do not involve the use of any computing functions. While these descriptive elements may provide further helpful context for the claimed invention, these elements do not serve to confer subject matter eligibility to the invention since their individual and combined significance is still not heavier than the abstract concepts at the core of the claimed invention.

Moreover, the claims in the instant application do not constitute significantly more also because the claims or claim elements only serve to implement the abstract idea using computer components to perform computing functions (*Enfish,* see MPEP 2106.05(a)). Specifically, the computing system encompasses general purpose hardware and software modules, as disclosed in the application specification in fig9 and [0072]-[0077], including among others: processor; main memory; static memory; sensors; network interface device; antennas; display device; input device; UI navigation device; mass storage; signal generation device; output controller.

When the dependent claims are considered as a whole, as a combination, the claim elements noted above appear to merely apply the abstract concept to a technical environment in a very general sense – i.e. a computer receives information from another computer, processes that information and then sends a response based on processing results. The most significant elements of the claims, that is the elements that really outline the inventive elements of the claims, are set forth in the elements identified in the independent claims as an abstract idea. The fact that the computing devices are facilitating the abstract concept is not enough to confer statutory subject matter eligibility. In sum, the additional elements do not serve to confer subject matter eligibility to the invention since their individual and combined significance is still not heavier than the abstract concepts at the core of the claimed invention. Therefore, it is concluded that the dependent claims of the instant application do not amount to significantly more either. (see MPEP 2106.05)

In sum, Claims 25-49 are rejected under 35 USC 101 as being directed to non-statutory subject matter.

Claim Rejections - 35 USC § 112(a)
Written Description (Possession)

The following is a quotation of 35 U.S.C. 112(a):

> The specification shall contain a written description of the invention, and of the manner and process of
> making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to
> which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the
> best mode contemplated by the inventor of carrying out his invention.

Claims 34, 44 are rejected under 35 USC 112(a) as failing to comply with the written
description requirement. The claim contains subject matter which was not described in the
specification in such a way as to reasonably convey to one skilled in the relevant art that the
inventor(s), at the time the application was filed, had possession of the claimed invention.

Claims 34, 44 are rejected for reciting the subject matter "the message or notification is
customized to the visit" which is not adequately described in the specification, in the drawings or
in the original set of claims to satisfy the requirements as described in MPEP 2163.05 V: "While
there is a presumption that an adequate written description of the claimed invention is present in
the specification as filed, *In re Wertheim*, 541 F.2d 257, 262, 191 USPQ 90, 96 (CCPA 1976), a
question as to whether a specification provides an adequate written description may arise in the
context of an original claim. An original claim may lack written description support when (1) the
claim defines the invention in functional language specifying a desired result but the disclosure
fails to sufficiently identify how the function is performed or the result is achieved ..." Further
"Even if a claim is supported by the specification, the language of the specification, to the extent
possible, must describe the claimed invention so that one skilled in the art can recognize what is
claimed. The appearance of mere indistinct words in a specification or a claim, even an original
claim, does not necessarily satisfy that requirement. "*Enzo Biochem, Inc. v. Gen-Probe, Inc.*,
323 F.3d 956, 968, 63 USPQ2d 1609, 1616 (Fed. Cir. 2002) (holding that generic claim
language appearing in *ipsis verbis* in the original specification did not satisfy the written
description requirement)."

In the instant situation, the application specification attempts to describe the term "the
message or notification is customized to the visit" at fig4A, fig4B, [0021] – "This customer and
location information may be correlated to media content delivery information and the selection
and control of particular media content including but not limited to customized advertisements,
audiovisual content, software content, and like information offerings." No further information, like
calculation method or algorithm is provided; i.e. HOW the function is performed. In addition, the

specification verbally recites (*ipsis verbis*) the language of **Claims 34, 44.** While the
specification discloses the function, it discloses neither the necessary structure, nor the
necessary algorithm to perform the function, i.e. HOW the calculation is performed.

The question is, given the disclosure, would a POSITA conclude that the inventor was in
possession of the term "the message or notification is customized to the visit" in order to cause
a system to perform the functions? The answer is clearly "no." It looks as if the invention recites
terms that have neither structure nor algorithm.

Therefore, the subject matter was not described in the specification in such a way as to
reasonably convey to one skilled in the relevant art that the inventor(s), at the time the
application was filed, had possession of the claimed invention.

For examination purpose, Examiner will interpret "the message or notification is
customized to the visit" as any type of customization, which is what the prior art of record
discloses. The reference is provided for compact prosecution purpose.

The reference is provided for the purpose of compact prosecution.

Claim Rejections - 35 USC § 112(b)

The following is a quotation of 35 U.S.C. 112(b):

> (b) CONCLUSION.—The specification shall conclude with one or more claims particularly
> pointing out and distinctly claiming the subject matter which the inventor or a joint inventor
> regards as the invention.

Claims 27, 37, 46 are rejected under 35 U.S.C. 112(b) as being indefinite for failing to
particularly point out and distinctly claim the subject matter which the inventor regards as the
invention.

Claims 27, 37, 46 recite the acronym "RFID" without spelling out its meaning before
using it.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness
rejections set forth in this Office action:

> (a) A patent may not be obtained through the invention is not identically disclosed or described as
> set forth in section 102 of this title, if the differences between the subject matter sought to be
> patented and the prior art are such that the subject matter as a whole would have been obvious at
> the time the invention was made to a person having ordinary skill in the art to which said subject

matter pertains. Patentability shall not be negatived by the manner in which the invention was
made.

The factual inquiries set forth in Graham v. John Deere Co., 383 U.S. 1, 148 USPQ 459 (1966),
that are applied for establishing a background for determining obviousness under 35 U.S.C.
103(a) are summarized as follows:

    i.   Determining the scope and contents of the prior art.

    ii.   Ascertaining the differences between the prior art and the claims at issue.

    iii.   Resolving the level of ordinary skill in the pertinent art.

    iv.   Considering objective evidence present in the application indicating obviousness or
nonobviousness.

**Claims 25-49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mendelson
(US 9,204,257), in view of Ge et al (US 2015/0066630).**

Regarding Claims 25, 35, 45 – Mendelson discloses: A method for obtaining location-based
content for a mobile computing device, the method performed by the mobile computing device,
and the method comprising:

communicating, to a device tracking system, a location identifier and ..., the location
identifier being obtained from a source within a mapped physical environment while the mobile
computing device is in wireless communication range of the source, {see at least fig4, rc303,
rc304, (23)-(24)/[54:45-55:37] provide location identification; fig6, (26)/[55:54-56:10] provide
location identification}

wherein the device tracking system tracks locations of the mobile computing device in
the mapped physical environment based at least in part on the location identifier; {see at least
(278)-(279)/[22:15-67] location tracked based on location identifiers; (46)/[10:66-11:3] each
beacon identifier is a known position waypoint}

wherein the identifier is communicated to the network content system when the mobile
computing device is located outside of the wireless communication range of the source; {see at
least (508)/[14:16-31] user profile stored outside user device, marketing statistics, surfing habits
(reads on activity information), building a profile (reads on prerecorded); (401)/[32:26-35]
predefined user input / user profile (reads on activity information inputted when no
communication)}

wherein the content network system further selects the content based on activity
information from the mapped physical environment, the activity information determined based at
least in part on the location identifier previously provided while the mobile computing device was
in wireless communication range of the source; and {see at least (508)/[14:16-31] user profile

stored outside user device, marketing statistics, surfing habits (reads on activity information), building a profile (reads on prerecorded); (401)/[32:26-35] predefined user input / user profile}

outputting the content selected for the mobile computing device in the software application, wherein the outputting of the content in the software application occurs while the mobile computing device is located outside wireless communication range of the source; {see at least (314)/[27:12-25] providing content when user approaches the store (reads on outside communication range; fig6, rc604, (26)/[55:54-56:10] provide content}

wherein the activity information from the mapped physical environment is provided from the device tracking system to the network content system without communications from the mobile computing device. {see at least (508)/[14:16-31] user profile stored outside user device, marketing statistics, surfing habits (reads on activity information), building a profile (reads on prerecorded); (401)/[32:26-35] predefined user input / user profile (reads on activity information inputted when no communication)}

Mendelson does not disclose, however, Ge disclose:

... an identifier unique to the mobile computing device ... {see at least fig1, rc104, rc110, [0031] request content based on device identifier (reads implicitly on communicating the device identifier to the content storage)}

communicating the identifier unique to the mobile computing device, from a software application of the mobile computing device to a network content system, {see at least fig1, rc104, rc110, [0031] request content based on device identifier (reads implicitly on communicating the device identifier to the content storage)}

obtaining content from the network content system, using the software application, wherein the content network system selects the content based on the identifier unique to the mobile computing device, and {see at least fig1, rc104, rc110, [0031] request content based on device identifier (reads on selecting content based on device identifier)}

In addition, it would have been obvious to one of ordinary skill in the art, at the time of filing, to modify Mendelson to include the elements of Ge. One would have been motivated to do so, in order to customize the content to provided. Furthermore, the Supreme Court has supported that combining well known prior art elements, in a well-known manner, to obtain predictable results is sufficient to determine an invention obvious over such combination (see *KSR International Co. v. Teleflex Inc. (KSR)*, 550 U.S.,82 USPQ2d 1385 (2007) & MPEP 2143). In the instant case, Mendelson evidently discloses providing content based on location

identification. Ge is merely relied upon to illustrate the functionality of choosing content based on device identification in the same or similar context. As best understood by Examiner, since both providing content based on location identification, as well as choosing content based on device identification are implemented through well-known computer technologies in the same or similar context, combining their features as outlined above using such well-known computer technologies (i.e., conventional software/hardware configurations), would be reasonable, according to one of ordinary skill in the art. Moreover, since the elements disclosed by Mendelson, as well as Ge would function in the same manner in combination as they do in their separate embodiments, it would be reasonable to conclude that their resulting combination would be predictable. Accordingly, the claimed subject matter is obvious over Mendelson / Ge.

Regarding Claims 26, 36 – Mendelson, Ge discloses the limitations of Claims 25, 35. Mendelson further discloses:

obtaining the location identifier from the source within the mapped physical environment, the location identifier received while the mobile computing device is in range of the source. {see at least fig2, rc102, (20)/[53:25-47] static beacons deployed indoors; (450)-(452)/[36:22-37] beacon infrastructure in a geofence}

Regarding Claims 27, 37, 46 – Mendelson, Ge discloses the limitations of Claims 26, 36, 45. Mendelson further discloses:

wherein the source is a wireless personal area network beacon or an RFID tag, and {see at least (450)-(452)/[36:22-37] beacon infrastructure; (44)-(46)/[4:41-57] Bluetooth network}

wherein the location identifier includes a unique location identifier of the beacon or the tag. {see at least (44)-(46)/[4:41-57] Bluetooth tag/beacon has a unique identification (reads on location identification)}

Regarding Claims 28, 38 – Mendelson, Ge discloses the limitations of Claims 25, 35. Mendelson further discloses:

wherein transmission of the location identifier and the identifier unique to the mobile computing device is performed by an operating system or another software application of the mobile computing device, the operating system or the another software application operating separately from the software application. {see at least [Abstract] An application would utilize the RF beacons to determine a user's location respective to a local area and inform the user of their location on an associated map. The application can employ the RF beacons for navigation

through the local area. The application can utilize a beacon identifier that would be embedded within the beacon signal. The beacon identifier can be utilized to determine a user's location, provide navigation, obtain marketing information for merchants associated with the specific beacon; (18)/[2:60-3:7] The tag /beacon broadcasts its information to be picked up by the mobile phone application, via the cellular phone or other Bluetooth device with application.}

Regarding Claims 29, 39, 47 – Mendelson, Ge discloses the limitations of Claims 25, 35, 45. Mendelson further discloses:

communicating, to the device tracking system, location data that is obtained by the mobile computing device within the mapped physical environment while the mobile computing device is in wireless communication range of the source. {see at least (450)-(452)/[36:22-37] beacon infrastructure; (44)-(46)/[4:41-57] Bluetooth network}

Regarding Claims 30, 40, 49 – Mendelson, Ge discloses the limitations of Claims 29, 39, 45. Mendelson further discloses:

obtaining network information from a plurality of wireless local area network access points operating according to a wireless local area network protocol; {see at least fig1, (20)/[53:25-47] The RF beacons can utilize at least one of Bluetooth and Wi-Fi signal protocols. The exemplary system utilizes a mobile cellular phone (101) to scan and detect a proximity of an installed beacon (102) in the most part for determining an indoor or outdoor location in a proximity to a known location of the installed beacon (102) and for initiating or triggering a notification of an existence to indoor and/or outdoor navigation and delivery of local content according to the determined location.}

wherein the location data transmitted to the device tracking system includes the network information from the plurality of wireless local area network access points, and {see at least fig1, (20)/[53:25-47] The RF beacons can utilize at least one of Bluetooth and Wi-Fi signal protocols. The exemplary system utilizes a mobile cellular phone (101) to scan and detect a proximity of an installed beacon (102) in the most part for determining an indoor or outdoor location in a proximity to a known location of the installed beacon (102) and for initiating or triggering a notification of an existence to indoor and/or outdoor navigation and delivery of local content according to the determined location.}

wherein the network information includes identifying data to triangulate or trilaterate the mobile computing device in the mapped physical environment relative to the plurality of wireless

local area network access points. {see at least (37)-(39)/[4:11-20] triangulation; (467)/[37:34-48] triangulation calculation}

Regarding Claims 31, 41 – Mendelson, Ge discloses the limitations of Claims 25, 35. Mendelson further discloses:

wherein the mapped physical environment includes at least one geofence, and {see at least (129)/[10:15-35] virtual secure zone (reads on geofence)}

wherein the outputting of the content or the selection of the content is based on entry or movement of the mobile computing device relative to the at least one geofence. {see at least fig5, (25)/[5:39-53] the cellular phone enters/exits the area; (455)/[35:54-36:2] track the movement of cell phones; (440)/[35:21-28] shopper path}

Regarding Claims 32, 42, 49 – Mendelson, Ge discloses the limitations of Claims 25, 35, 45. Mendelson further discloses:

wherein the mapped physical environment is a retail store, {see at least (332)-(333)/[26:62-27:5] navigation inside the store to specific aisle or product; (134)/[10:53-63] navigation inside the store, department, specific aisle, specific product}

wherein the location identifier is correlated by the device tracking system to a location associated with at least one aspect of the retail store, {see at least (332)-(333)/[26:62-27:5] navigation inside the store to specific aisle or product; (134)/[10:53-63] navigation inside the store, department, specific aisle, specific product}

wherein the content is selected for the mobile computing device based on a visit of the mobile computing device to the location associated with the at least one aspect of the retail store, and {see at least (332)-(333)/[26:62-27:5] navigation inside the store to specific aisle or product; (134)/[10:53-63] navigation inside the store, department, specific aisle, specific product}

wherein the at least one aspect is provided from among: a section, zone, area, display, product, service, brand, or feature within the retail store. {see at least (332)-(333)/[26:62-27:5] navigation inside the store to specific aisle or product; (134)/[10:53-63] navigation inside the store, department, specific aisle, specific product}

Regarding Claims 33, 43 – Mendelson, Ge discloses the limitations of Claims 32, 42. Mendelson further discloses:

wherein the content is further selected by the content network system for the mobile computing device based on a duration of the visit of the mobile computing device at the location associated with the at least aspect of the retail store. {see at least (527)/[43:1-5] provide related ads according to user interests; (521)-(522)/[42:25-38] dwell time (beads on the broadest reasonable interpretation requirement – see MPEP 2111 – Examiner construes the customer interest being proportional with the dwell time}

Regarding Claims 34, 44 – Mendelson, Ge discloses the limitations of Claims 32, 35. Mendelson further discloses:

wherein the content is provided in a message or notification, output in connection with the software application, and wherein the message or notification is customized to the visit of the mobile computing device to the location associated with the at least one aspect of the retail store. {see at least (312)/[24:51-58] help navigate and locate an item in the store, local advertising (reads on message customized to the visit); (239)/[10:10-15] provide users with customized personalized offers or advertisements}

The prior art made of record and not relied upon which, however, is considered pertinent to applicant's disclosure:

US 9204251 B1 USPAT   48   Indoor and outdoor navigation and local base services application utilizing RF bluetooth beacons; Mendelson; Ehud

US 20140274135 A1 US-PGPUB   71   CLIENT ACCESS TO MOBILE LOCATION SERVICES; EDGE; Stephen William et al.

US 20130091452 A1 US-PGPUB   99   LOCATION-BASED SERVICES; SORDEN; Gary et al.

US 9420423 B1 USPAT   29   RF beacon deployment and method of use; Mendelson; Ehud

US 20130297422 A1 US-PGPUB   130   RETAIL PROXIMITY MARKETING; HUNTER; KEVIN E. et al.

US 20180032997 A1 US-PGPUB   326   SYSTEM, METHOD, AND COMPUTER PROGRAM PRODUCT FOR DETERMINING WHETHER TO PROMPT AN ACTION BY A PLATFORM IN CONNECTION WITH A MOBILE DEVICE; Gordon; George A. et al.

US 20160029155 A1 US-PGPUB   74   CONTEXT AWARE RELEVANCE ENGINE WITH CLIENT-DRIVEN NARRATIVE Kerr; Michael A. et al.

US 20140365304 A1 US-PGPUB   60   Cross-Device Geolocation Sensing to
Geotarget Offers; Showers; Brian Keith et al.

Inquiries

Any inquiry concerning this communication or earlier communications from the examiner
should be directed to Radu Andrei whose telephone number is 313.446.4948. The examiner
can normally be reached on Monday – Friday 8:30am – 5pm EST. If attempts to reach the
examiner by telephone are unsuccessful, the examiner's supervisor, Peter Choi can be reached
at (469)295-9171. The fax phone number for the organization where this application or
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/Radu Andrei/
Primary Examiner, AU 3622

AMENDMENT AND RESPONSE UNDER 37 C.F.R. § 1.111
Application Number: 16/712.564
Filing Date: December 12, 2019
Title: BEACON-BASED MEDIA NETWORK

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REMARKS

This submission responds to the Non-Final Office Action dated December 30, 2020.

Claims 25, 27–28, 33–35, 37–38, and 44–46 are presently amended. No claims are presently canceled, and claims 1-24 were canceled previously. No new claims are presently added. As a result, claims 25-49 remain pending in this application. Support for the amendments to the independent claims can be found at least at paragraphs [0037], [0039]-[0043], and [0052] of the originally filed specification. Other minor amendments are made to the dependent claims for typographical consistency and to further clarify the subject matter of the claims.

Double Patenting Rejection

Claims 25, 35, 45 were rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1, 11, 18 of U.S. Patent No. 10,542,380. A Terminal Disclaimer in compliance with 37 C.F.R. § 1.321 is enclosed herewith to obviate this rejection and to expedite the present matter to allowance.

As is explained in the sections below, the Examiner's application of this obviousness-type double patenting rejection demonstrates the patentability of the present claims over the current Section 101 and 103 rejections. Applicant refers the Examiner to the Patent Trial and Appeal Board's Decision on Appeal, in Application No. 14/610,605, Appeal No. 2018-002675, mailed June 27, 2019, and the rationales expressed therein by the Board for subject matter eligibility and non-obviousness of the commonly claimed subject matter.

The Rejection of Claims Under § 112

Claims 34, 44 were rejected under 35 USC § 112(a) as allegedly failing to comply with the written description (possession) requirement. It is believed that the Examiner's remarks regarding an alleged lack of possession are due to an unclear wording provided in the prior version of the claim. The claims are presently amended, for purposes of clarity, to recite *wherein the message or notification is customized **based on** the visit of the mobile computing device to the location associated with the at least one aspect of the retail store.* The specification provides numerous examples of how location- and user activity-customized advertisements and other forms of messages or notifications are based on visited retail environment locations. For example, see

paragraphs [0039], [0040], [0045], [0048], [0050], and [0053], among other locations of the originally filed specification.

Claims 27, 37, 46 were rejected under 35 U.S.C. § 112(b) as being allegedly indefinite for failing to particularly point out and distinctly claim the subject matter which the inventor regards as the invention. Specifically, the acronym "RFID" was objected to. Each of these claims are amended to recite "Radio Frequency Identification (RFID)", and it is believed that this rejection has been obviated. Applicant respectfully requests reconsideration and withdrawal of the § 112 rejections.

The Rejection of Claims Under § 101

Claims 25-49 were rejected under 35 U.S.C. § 101 as allegedly being directed to non-statutory subject matter. Applicant submits that the claims are directed to statutory subject matter, for the same reasons explained in the prosecution of the parent application, Application No. 14/610,605 whose rejections were reversed on appeal, issuing as U.S. Patent No. 10,542,380.

In the parent application, the Patent Trial and Appeal Board explained that the subject matter of the application, "a beacon-based media network," invoked the use of "advertising, marketing, or sales activities," and recited an abstract idea. (Decision on Appeal, in Appeal 2018-002675, Application No. 14/610,605, mailed June 27, 2019, pages 9-11). However, the Board held that the "additional limitations" provided by the claim "integrate the abstract idea into a practical application as determined under at least one of the relevant MPEP sections", citing to MPEP § 2106.05(a)-(c), (e)-(h). In particular, the Board stated the following:

> Similarly, we find that the limitations discussed above, that require the physical tracking of the location of a device, sufficiently limit the use of the abstract idea encompassed by the other limitations to the specific and tangible application of tracking a mobile device although physically located in a particular area, such as a retail store, and notifying another entity after the device has left that particular area. Accordingly, we conclude, when the claim is considered as a whole, the recited judicial exception is integrated into a practical application as determined under MPEP § 2106.05(e) cited above, such that the claim is patent-eligible, thus concluding the eligibility analysis.

(Decision on Appeal, page 13). The present application is directed to a practical application for the same reason, including from the detailed tracking recitations that the *device tracking system tracks locations of the mobile computing device in the mapped physical environment based at least in part on the location identifier... wherein the device identifier [that is unique to the mobile computing device] is communicated to the content network system when the mobile computing device is located outside of the wireless communication range of the source... wherein...the activity information [is] determined based at least in part on the location identifier previously provided while the mobile computing device was in wireless communication range of the source.*

Moreover, the Examiner's application of an obviousness-type double patenting rejection under U.S. Patent No. 10,542,380, the patent issuing from Application No. 14/610,605, demonstrates the similarity of the same tracking recitations between the present application and Application No. 14/610,605. If completely different location tracking recitations were provided in the present claim set, the current obviousness-type double patenting rejection could not have been applied. (*See* Office Action, page 3, "the Application's independent claims 25, 35, 45 read on the patent independent claims 1, 11, 18 respectively"). The Board's finding of a practical application and the reasons for concluding subject matter eligibility equally apply to the present application.

Applicant submits that the claims are directed to a practical application of any abstract idea, and therefore are directed to eligible subject matter under § 101.

The Rejection of Claims Under § 103

Claims 25-49 were rejected under 35 U.S.C. § 103 as purportedly obvious over Mendelson (U.S. 9,204,257) in view of Ge (U.S. 2015/0066630). Applicant respectfully traverses the current grounds of rejection, because the disclosures of Mendelson and Ge, combined in any fashion, fail to teach, suggest, or otherwise establish the obviousness of each and every element recited in the presently amended claims.

For purposes of clarity, the independent claims are amended to recite further characteristics of the identifiers that are involved in the present tracking system, now recited as a "location identifier" and a "device identifier." These characteristics include (e.g., as is recited in claim 25):

* *communicating, to a device tracking system, a location identifier and a device identifier that are each unique to the mobile computing device*

- *wherein the device tracking system tracks locations of the mobile computing device in the mapped physical environment **based at least in part on** the location identifier **and** the device identifier*
- *obtaining content from the content network system, using the software application, wherein the content network system selects the content based on the **device identifier that is unique to the mobile computing device***
- *wherein the content network system further selects the content based on activity information from the mapped physical environment, the activity information determined based at least in part on the **location identifier that is unique to the mobile computing device**, and the location identifier previously provided while the mobile computing device was in wireless communication range of the source*
- *outputting of the content in the software application occurs **at a subsequent time when** the mobile computing device is located outside wireless communication range of the source*

These recitations are not reasonably taught in any combination of Mendelson or Ge. In particular, the concept of both a location identifier and a device identifier each being "*unique to the mobile computing device*" cannot be found in the approaches taken by these two cited references.

In Mendelson, a content delivery technique is disclosed, to "deliver more content (advertising, sale, coupons, promo etc. . . .) to the user when he approach the store or is already inside." (Mendelson, 27:12-25, cited on page 14 of the Office Action). Whereas Mendelson refers to display actions that occur **before** the user enters the environment and **at the time** that the user is inside, the claims recite content selection that happens after a user leaves the environment: "*content network system further selects the content based on activity information from the mapped physical environment, the activity information determined based at least in part on ...the location identifier **previously provided** while the mobile computing device was in wireless communication range of the source....*" This is also emphasized in the amended language, "*at a subsequent time when the mobile computing device is located outside the wireless communication range of the source.*" Mendelson does not teach or suggest any relevant ability to perform tracking or delivery of content after the user leaves a tracked environment.

In Ge, various types of content selection are discussed, including "based on data associated with a device identifier for client device." (Ge, paragraph [0029]). However, there is no relationship here to the recited aspects of a device tracking system in a mapped physical environment – such as the recited ways and times that a device identifier is used for tracking locations so that content can

be selected and output *"at a subsequent time when the mobile computing device is located outside wireless communication range of the source."* Ge's methods for online webpage and browser tracking simply do not establish the claimed recitations for use of identifying a mobile computing device in a real world setting.

The reasoning applied in the Office Action also does not suggest the obviousness of how an *"a location identifier and a device identifier that are each unique to the mobile computing device"* would be transmitted and used to receive content among a separate device tracking system and content systems. Instead, only a high level and generic rationale for obviousness is provided, alleging that one would have been motivated to modify Mendelson to include the elements of Ge "in order to customize the content to provided." (Office Action, p. 14). Customization is not its own rationale for obviousness or some license for unlimited modification of the prior art – it is a result to be achieved. Even if the Examiner's statements are true that Mendelson "discloses providing content based on location identification," and Ge illustrates "the functionality of choosing content based on device identification in the same or similar context," (Office Action, pp. 14-15), this rationale falls well short of the particular sequence of operations recited by the claims as a whole. The Office Action and the cited references, read in any combination, does not establish the obviousness of the claimed communication and content retrieval operations occurring with use of the expressly recited identifiers, at the expressly recited times, and at the expressly recited locations.

Finally, Applicant refers to the Examiner to the findings of the Patent Trials and Appeal Board for the parent application, that "the cited portions of Mendelson do not teach or suggest…(3) the content is delivered at a *subsequent time* to the location tracking." (Decision on Appeal, in Appeal 2018-002675, p. 6, emphasis in original). For the same reasons applicable in that application, "[t]he Examiner does not sufficiently explain why or how a person of ordinary skill in the art would find obvious these differences between Mendelson's disclosure and the claimed language." (Decision on Appeal, in Appeal 2018-002675, p. 6)

Applicant submits that for at least the reasons identified above, any combination of Mendelson and Ge cannot teach, suggest, or render obvious each and every element of the amended claims. A prima facie case of obviousness therefore cannot be maintained for the independent claims or the dependent claims depending thereupon. Applicant respectfully requests reconsideration and withdrawal of the rejections under 35 U.S.C. § 103 for claims 25-49.

Reservation of Rights

In the interest of clarity and brevity, every assertion made in the Office Action may not have been equally addressed. Silence regarding any such assertion does not constitute any admission or acquiescence. All rights not exercised in connection with this response, such as the right to challenge or rebut any tacit or explicit characterization of any reference or of any of the present claims, the right to challenge or rebut any asserted factual or legal basis of any of the rejections, the right to swear behind any cited reference such as provided under 37 C.F.R. § 1.131 or otherwise, or the right to assert co-ownership of any cited reference, are reserved. It is not admitted that any of the cited references or any other references of record are relevant to the present claims, or that they constitute prior art. To the extent that any rejection or assertion is based upon the Examiner's personal knowledge, rather than any objective evidence of record as manifested by a cited prior art reference, timely objection to such reliance on Official Notice is made, and all rights to request that the Examiner provide a reference or affidavit in support of such assertion, as required by MPEP § 2144.03, are reserved. All rights to pursue any cancelled claims in a subsequent patent application claiming the benefit of priority of the present patent application, and to request rejoinder of any withdrawn claim, as required by MPEP § 821.04, are likewise reserved.

AMENDMENT AND RESPONSE UNDER 37 C.F.R. § 1.111
Application Number: 16/712,564
Filing Date: December 12, 2019
Title: BEACON-BASED MEDIA NETWORK

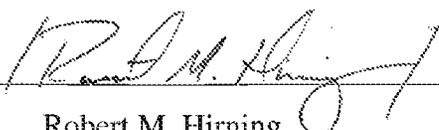Page 16
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CONCLUSION

It is respectfully submitted that the claims are in condition for allowance, and notification to that effect is earnestly requested. The Examiner is invited to telephone the undersigned at (612) 371-2110 to facilitate prosecution of this application.

If necessary, please charge any additional fees or deficiencies, or credit any overpayments to Deposit Account No. 19-0743.

Respectfully submitted,

SCHWEGMAN LUNDBERG & WOESSNER, P.A.
P.O. Box 2938
Minneapolis, MN 55402-0938
(612) 371-2110

Date __April 30, 2021__   By _____

Robert M. Hirning
Reg. No. 59,215

IN THE CLAIMS

Please amend the claims as follows:

1.-24. (Canceled)

25.   (Currently amended) A method for obtaining location-based content for a mobile computing device, the method performed by the mobile computing device, and the method comprising:

communicating, to a device tracking system, a location identifier and [[an]] a device identifier that are each unique to the mobile computing device, the location identifier being obtained from a source within a mapped physical environment while the mobile computing device is in wireless communication range of the source, wherein the device tracking system tracks locations of the mobile computing device in the mapped physical environment based at least in part on the location identifier and the device identifier;

communicating the device identifier that is unique to the mobile computing device, from a software application of the mobile computing device to a network content network system, wherein the device identifier is communicated to the network content network system when the mobile computing device is located outside of the wireless communication range of the source;

obtaining content from the network content network system, using the software application, wherein the content network system selects the content based on the device identifier that is unique to the mobile computing device, and wherein the content network system further selects the content based on activity information from the mapped physical environment, the activity information determined based at least in part on the location identifier that is unique to the mobile computing device, and the location identifier previously provided while the mobile computing device was in wireless communication range of the source; and

outputting the content selected for the mobile computing device in the software application, wherein the outputting of the content in the software application occurs while at a subsequent time when the mobile computing device is located outside wireless communication range of the source;

wherein the activity information from the mapped physical environment is provided from the device tracking system to the network content network system without communications from the mobile computing device.

26.   (Previously Presented) The method of claim 25, further comprising:

obtaining the location identifier from the source within the mapped physical environment, the location identifier received while the mobile computing device is in range of the source.

27.   (Currently amended) The method of claim 26, wherein the source is a wireless personal area network beacon or [[an]] a Radio Frequency Identification (RFID) tag, and wherein the location identifier includes a unique location identifier of the beacon or the tag.

28.   (Currently amended) The method of claim 25, wherein transmission of the location identifier and the device identifier unique to the mobile computing device is are performed by an operating system or another software application of the mobile computing device, the operating system or the another software application operating separately from the software application.

29.   (Previously Presented) The method of claim 25, further comprising:

communicating, to the device tracking system, location data that is obtained by the mobile computing device within the mapped physical environment while the mobile computing device is in wireless communication range of the source.

30.   (Previously Presented) The method of claim 29, further comprising:

obtaining network information from a plurality of wireless local area network access points operating according to a wireless local area network protocol;

wherein the location data transmitted to the device tracking system includes the network information from the plurality of wireless local area network access points, and wherein the network information includes identifying data to triangulate or trilaterate the mobile computing device in the mapped physical environment relative to the plurality of wireless local area network access points.

31.   (Previously Presented) The method of claim 25, wherein the mapped physical environment includes at least one geofence, and wherein the outputting of the content or the selection of the content is based on entry or movement of the mobile computing device relative to the at least one geofence.

32.   (Previously Presented) The method of claim 25, wherein the mapped physical environment is a retail store, wherein the location identifier is correlated by the device tracking system to a location associated with at least one aspect of the retail store, wherein the content is selected for the mobile computing device based on a visit of the mobile computing device to the location associated with the at least one aspect of the retail store, and wherein the at least one aspect is provided from among: a section, zone, area, display, product, service, brand, or feature within the retail store.

33.   (Currently amended) The method of claim 32, wherein the content is further selected by the content network system for the mobile computing device based on a duration of the visit of the mobile computing device at the location associated with the at least one aspect of the retail store.

34.   (Currently amended) The method of claim 32, wherein the content is provided in a message or notification, output in connection with the software application, and wherein the message or notification is customized [[to]] based on the visit of the mobile computing device to the location associated with the at least one aspect of the retail store.

35.   (Currently amended) At least one non-transitory machine-readable storage medium providing instructions for obtaining location-based content from a ~~network~~ content network system, the medium comprising instructions, that when executed by a mobile computing device, cause the mobile computing device to:

communicate, to a device tracking system, a location identifier and [[an]] a device identifier that are each unique to the mobile computing device, the location identifier being obtained from a source within a mapped physical environment while the mobile computing device is in wireless communication range of the source, wherein the device tracking system tracks locations of the mobile computing device in the mapped physical environment based at least in part on the location identifier and the device identifier;

communicate the device identifier that is unique to the mobile computing device, from a software application of the mobile computing device[[,]] to a ~~network~~ content network system, ~~the identifier unique to the mobile computing device,~~ wherein the device identifier is communicated to

the ~~network~~ content network system when the mobile computing device is located outside of the wireless communication range of the source;

obtain content from the ~~network~~ content network system, using the software application, wherein the content network system selects the content based on the device identifier that is unique to the mobile computing device, and wherein the content network system further selects the content based on activity information from the mapped physical environment, the activity information determined based at least in part on the location identifier that is unique to the mobile computing device, and the location identifier previously provided while the mobile computing device was in wireless communication range of the source; and

output the content selected for the mobile computing device in the software application, wherein the outputting of the content in the software application occurs ~~while~~ at a subsequent time when the mobile computing device is located outside wireless communication range of the source;

wherein the activity information from the mapped physical environment is provided from the device tracking system to the ~~network~~ content network system without communications from the mobile computing device.

36.   (Previously Presented) The machine-readable storage medium of claim 35, the instructions further causing the mobile computing device to:

receive the location identifier from the source within the mapped physical environment, the location identifier received while the mobile computing device is in range of the source.

37.   (Currently amended) The machine-readable storage medium of claim 36, wherein the source is a wireless personal area network beacon or [[an]] a Radio Frequency Identification (RFID) tag, and wherein the location identifier includes a unique location identifier of the beacon or the tag.

38.   (Currently amended) The machine-readable storage medium of claim 35, the instructions further causing the mobile computing device to:

cause an operating system or another software application of the mobile computing device to communicate the location identifier and the device identifier, ~~unique to the mobile computing~~

~~device,~~ the operating system or the another software application operating separately from the software application.

39.   (Previously Presented) The machine-readable storage medium of claim 35, the instructions further causing the mobile computing device to:

communicate, to the device tracking system, location data that is obtained by the mobile computing device within the mapped physical environment while the mobile computing device is in wireless communication range of the source.

40.   (Previously Presented) The machine-readable storage medium of claim 39, the instructions further causing the mobile computing device to:

obtain network information from a plurality of wireless local area network access points operating according to a wireless local area network protocol;

wherein the location data transmitted to the device tracking system includes the network information from the plurality of wireless local area network access points, and wherein the network information includes identifying data to triangulate or trilaterate the mobile computing device in the mapped physical environment relative to the plurality of wireless local area network access points.

41.   (Previously Presented) The machine-readable storage medium of claim 35, wherein the mapped physical environment includes at least one geofence, and wherein the output of the content or the selection of the content is based on entry or movement of the mobile computing device relative to the at least one geofence.

42.   (Previously Presented) The machine-readable storage medium of claim 35, wherein the mapped physical environment is a retail store, wherein the location identifier is correlated by the device tracking system to a location associated with at least one aspect of the retail store, wherein the content is selected for the mobile computing device based on a visit of the mobile computing device to the location associated with the at least one aspect of the retail store, and wherein the at least one aspect is provided from among: a section, zone, area, display, product, service, brand, or feature within the retail store.

43.   (Previously Presented) The machine-readable storage medium of claim 42, wherein the content is further selected by the content network system for the mobile computing device based on a duration of the visit of the mobile computing device at the location associated with the at least aspect of the retail store.

44.   (Currently amended) The machine-readable storage medium of claim 42, wherein the content is provided in a message or notification, output in connection with the software application, and wherein the message or notification is customized [[to]] based on the visit of the mobile computing device to the location associated with the at least one aspect of the retail store.

45.   (Currently amended) An apparatus, comprising:

        means for obtaining a location identifier and [[an]] a device identifier that are each unique to a mobile computing device, the location identifier being obtained from a source within a mapped physical environment while the mobile computing device is in wireless communication range of the source, wherein a device tracking system tracks locations of the mobile computing device in the mapped physical environment based at least in part on the location identifier and the device identifier;

        means for providing the device identifier that is unique to the mobile computing device to a network content network system, based on use of a software application of the mobile computing device at a subsequent time, wherein the device identifier is provided to the network content network system when the mobile computing device is located outside of the wireless communication range of the source;

        means for obtaining content from the network content network system, based on use of the software application, wherein the content network system selects the content based on the device identifier that is unique to the mobile computing device, and wherein the content network system further selects the content based on activity information from the mapped physical environment, the activity information determined based at least in part on the location identifier that is unique to the mobile computing device, and the location identifier provided while the mobile computing device is in wireless communication range of the source; and

means for providing the content selected for the mobile computing device for output in the software application, wherein the outputting of the content in the software application occurs ~~while~~ at a subsequent time when the mobile computing device is located outside wireless communication range of the source;

wherein the activity information from the mapped physical environment is communicated from the device tracking system to the ~~network~~ content network system independently of the mobile computing device.

46.   (Currently amended) The apparatus of claim 45, further comprising:

means for obtaining the location identifier from the source within the mapped physical environment, the location identifier received while the mobile computing device is in range of the source, wherein the source is a wireless personal area network beacon or [[an]] a Radio Frequency Identification (RFID) tag, and wherein the location identifier includes a unique location identifier of the beacon or the tag.

47.   (Previously Presented) The apparatus of claim 45, further comprising:

means for communicating, to the device tracking system, location data that is obtained by the mobile computing device within the mapped physical environment while the mobile computing device is in wireless communication range of the source.

48.   (Previously Presented) The apparatus of claim 47, further comprising:

means for obtaining network information from a plurality of wireless local area network access points operating according to a wireless local area network protocol;

wherein the location data transmitted to the device tracking system includes the network information from the plurality of wireless local area network access points, and wherein the network information includes identifying data to triangulate or trilaterate the mobile computing device in the mapped physical environment relative to the plurality of wireless local area network access points.

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49.   (Previously Presented) The apparatus of claim 45, wherein the mapped physical environment is a retail store, wherein the location identifier is correlated to a location associated with at least one aspect of the retail store, wherein the content is selected based on a visit to a location associated with the at least one aspect of the retail store, and wherein the at least one aspect is provided from among: a section, zone, area, display, product, service, brand, or feature within the retail store.