



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
**United States Patent and Trademark Office**  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
15/409,576	01/19/2017	Mikko VAANANEN	P150609US1	4302
129597	7590	06/15/2020	EXAMINER	
Mikko Kalervo Vaananen PO Box 346 Street address: Unioninkatu 20-22, Suite B351 Helsinki, 00131 FINLAND			BUCHANAN, CHRISTOPHER R	
			ART UNIT	PAPER NUMBER
			3627	
			NOTIFICATION DATE	DELIVERY MODE
			06/15/2020	ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patents@suinno.com

UNITED STATES PATENT AND TRADEMARK OFFICE

---

BEFORE THE PATENT TRIAL AND APPEAL BOARD

---

*Ex parte* MIKKO VAANANEN

---

Appeal 2019–000119<sup>1</sup>  
Application 15/409,576  
Technology Center 3600

---

Before MURRIEL E. CRAWFORD, ANTON W. FETTING, and  
MATTHEW S. MEYERS, *Administrative Patent Judges*.

FETTING, *Administrative Patent Judge*.

DECISION ON APPEAL

---

<sup>1</sup> Oral arguments were presented April 27, 2020.

## STATEMENT OF THE CASE<sup>2</sup>

Mikko Vaananen (Appellant<sup>3</sup>) seeks review under 35 U.S.C. § 134 of a final rejection of claims 6–21 and 34–38, the only claims pending in the application on appeal. We have jurisdiction over the appeal pursuant to 35 U.S.C. § 6(b).

The Appellant invented a way of providing location information to a drone system, continuously or at random or short intervals which the drone can use to approach a user dynamically. Specification 2:23–26.

An understanding of the invention can be derived from a reading of exemplary claim 11, which is reproduced below (bracketed matter and some paragraphing added).

11. A method for delivering products and/or services, comprising
- [0.1] at least one mobile subscriber terminal,
  - [0.2] at least one drone
- and/or
- [0.3] at least one server computer,
- and

---

<sup>2</sup> Our decision will make reference to the Appellant’s Appeal Brief (“App. Br.,” filed June 15, 2018) and Reply Brief (“Reply Br.,” filed October 2, 2018), and the Examiner’s Answer (“Ans.,” mailed September 25, 2018), and Final Action (“Final Act.,” mailed March 9, 2018).

<sup>3</sup> We use the word “Appellant” to refer to “applicant” as defined in 37 C.F.R. § 1.42. Appellant does not identify a separate real party in interest.

[0.4] a communication network,  
characterised [sic] in that,

[1] the mobile subscriber terminal application allows the user to select a product or service,

[2] the application receives the user choice and transmits the choice and/or social network profile or personal data of the user to the drone directly and/or via the cloud server computer with the location of the mobile subscriber that made the selection,

[3] the location of the mobile subscriber terminal is sent automatically and multiple times to the drone,

[4] at least one drone retrieves the product and/or prepares for delivery of service and approaches the moving mobile subscriber location that is sent multiple times to the drone as the location changes until the product or service is delivered to the mobile subscriber terminal location of the mobile consumer.

The Examiner relies upon the following prior art:

Name	Reference	Date
Jones	US 2014/0277854 A1	Sept. 18, 2014
Ganesh	US 2016/0068264 A1	Mar. 10, 2016

Claims 6–21 and 34–38 stand rejected under 35 U.S.C. § 101 as directed to a judicial exception without significantly more.

Claims 6–21 and 34–38 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Ganesh and Jones.

### ISSUES

The issues of eligible subject matter turn primarily on whether the claims recite more than abstract conceptual advice of results desired.

The issues of obviousness turn primarily on whether Jones describes sending location information multiple times.

## FACTS PERTINENT TO THE ISSUES

The following enumerated Findings of Fact (FF) are believed to be supported by a preponderance of the evidence.

### *Facts Related to the Prior Art*

#### *Ganesh*

01. Ganesh is directed to security for a delivery drone to prevent tampering and malicious acts by third parties. Ganesh para. 3.
02. Ganesh describes a drone delivering a package of goods to a delivery destination and providing a notification to a device of a purchaser, and that the drone has arrived near the delivery destination. The drone may hover at a secure altitude from a landing zone at the delivery destination. The drone may receive a purchase code associated with a purchase of the package of goods. The drone may authenticate the purchase code as a condition for landing. The drone may land in the landing zone at the delivery destination when the purchase code is authenticated. When the purchase code is not authenticated, the drone may abort the landing in the landing zone at the delivery destination. Ganesh para. 3.
03. Ganesh describes how the purchaser may have moved to a new destination and may have modified the delivery destination. The new destination information may be conveyed to the drone through one or more of the wireless connections. Ganesh para. 51.

04. Ganesh describes the landing pad using a wireless connection with the drone for communicating landing related information. Ganesh para. 72.

*Jones*

05. Jones is directed to a drone and methods for use. Jones para. 1.
06. Jones describes receiving location information of a customer and a message, and piloting the drone to a location near the customer. Jones para. 11.
07. Jones describes customers using a mobile device to access the internet from a location within the mall. Customers may interact with a social networking application provided by application server or a third-party application hosted on a database server, with which application server may also interact. When a customer opts-in to a promotion system linked to application server, the mobile device may transmit the customer's location to the application server via the internet. In various embodiments, the mobile device may connect to a local wi-fi network to transmit the location data to application server. The location data may reach the drone network at firewall, and travel through router, switch, and any other nodes necessary to reach application server. The application server may use the location data to select target customers and to generate a travel path. The application server may transmit the travel path including way points to drone via wireless access point. The location information and travel path may be updated continuously. The drone may use the travel path to navigate to the customer location and may communicate with

customer using audio or visual communication, and may deliver coupons, receipts, and other promotional materials, for example advertisements physically attached to the drone. Jones para. 68.

08. Jones describes the network receiving location data of customers. Customers may provide location data to the network. For example, the application server may receive location data via Facebook, Foursquare, QRC Check-In, Google Maps, or any other location indicating service. The customer may use the social networking application and a customer mobile device to provide real-time location information to the network. Jones para. 81.

## ANALYSIS

*Claims 6–21 and 34–38 rejected under 35 U.S.C. § 101 as directed to a judicial exception without significantly more*

### STEP 1<sup>4</sup>

Claim 11, as a method claim, nominally recites one of the enumerated categories of eligible subject matter in 35 U.S.C. § 101. The issue before us is whether it is directed to a judicial exception without significantly more.

### STEP 2

The Supreme Court

set forth a framework for distinguishing patents that claim laws of nature, natural phenomena, and abstract ideas from those that claim patent-eligible applications of those concepts. First, . . . determine whether the claims at issue are directed to one of those patent-ineligible concepts. If so, we then ask, “[w]hat

---

<sup>4</sup> For continuity of analysis, we adopt the steps nomenclature from 2019 Revised Patent Subject Matter Eligibility Guidance, 84 Fed. Reg. 50 (Jan. 7, 2019) (“Revised Guidance”).

else is there in the claims before us? To answer that question, . . . consider 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. [The Court] described step two of this analysis as a search for an “inventive concept”—i.e., 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 Corp. v. CLS Bank Int’l*, 573 U.S. 208, 217–18 (2014) (citations omitted) (citing *Mayo Collaborative Servs. v. Prometheus Labs, Inc.*, 566 U.S. 66 (2012)). To perform this test, we must first determine what the claims are directed to. This begins by determining whether the claims recite one of the judicial exceptions (a law of nature, a natural phenomenon, or an abstract idea). Then, if the claims recite a judicial exception, determining whether the claims at issue are directed to the recited judicial exception, or whether the recited judicial exception is integrated into a practical application of that exception, i.e., that the claims “apply, rely on, or use the judicial exception in a manner that imposes a meaningful limit on the judicial exception, such that the claim is more than a drafting effort designed to monopolize the judicial exception.” Revised Guidance, 84 Fed. Reg. at 54. If the claims are directed to a judicial exception, then finally determining whether the claims provide an inventive concept because the additional elements recited in the claims provide significantly more than the recited judicial exception.

#### STEP 2A Prong 1

At a high level, and for our preliminary analysis, we note that method claim 11 recites selecting data, receiving and transmitting choice data, sending location data, and processing drone data. Selecting data is



rudimentary analysis. Sending data is transmitting data. Thus, claim 11 recites analyzing, receiving, transmitting, and processing data. None of the limitations recites technological implementation details for any of these steps, but instead recite only results desired by any and all possible means. Claim 11 additionally recites that a drone retrieves a product and approaches for delivery. The mere physicality of this limitation is insufficient to confer eligibility.

[R]eliance on the asserted claims being directed to “physical real world manifestation[s] of an improved machine” is misplaced. Without more, the mere physical nature of CGI’s claim elements (e.g., controller, interface, and wireless data transmitter) is not enough to save the claims from abstractness, where the claimed advance is directed to the wireless communication of status information using off-the-shelf technology for its intended purpose.

*Chamberlain Grp., Inc. v. Techtronic Indus. Co.*, 935 F.3d 1341, 1348 (Fed. Cir. 2019). *See also In re Marco Guldenaar Holding B.V.*, 911 F.3d 1157, 1161 (Fed. Cir. 2018) (“the abstract idea exception does not turn solely on whether the claimed invention comprises physical versus mental steps”).

From this we see that claim 11 does not recite the judicial exceptions of either natural phenomena or laws of nature.

Under Supreme Court precedent, claims directed purely to an abstract idea are patent in-eligible. As set forth in the Revised Guidance, which extracts and synthesizes key concepts identified by the courts, abstract ideas include (1) mathematical concepts<sup>5</sup>, (2) certain methods of organizing

---

<sup>5</sup> *See, e.g., Gottschalk v. Benson*, 409 U.S. 63, 71–72 (1972); *Bilski v. Kappos*, 561 U.S. 593, 611 (2010); *Mackay Radio & Telegraph Co. v. Radio Corp. of Am.*, 306 U.S. 86, 94 (1939); *SAP America, Inc. v. InvestPic, LLC*, 898 F.3d 1161, 1163 (Fed. Cir. 2018).

human activity<sup>6</sup>, and (3) mental processes<sup>7</sup>. Among those certain methods of organizing human activity listed in the Revised Guidance are commercial or legal interactions. Like those concepts, claim 11 recites the concept of managing customer delivery. Specifically, claim 11 recites operations that would ordinarily take place in advising one to deliver to a customer at a location indicated by the customer mobile. The advice to deliver to a customer at a location indicated by the customer mobile involves delivering products and/or services, which is an economic act, and retrieving the product and preparing for delivery of service, which is an act ordinarily performed in the stream of commerce. For example, claim 11 recites “delivering products and/or services,” which is an activity that would take place whenever one is fulfilling a commercial transaction. Similarly, claim 11 recites “retrieves the product and/or prepares for delivery of service,” which is also characteristic of fulfilling a commercial transaction.

The Examiner determines the claims to be directed to purchase and delivery of a product or service. Final Act. 2. The preamble to claim 11 recites that it is a method for delivering products and/or services. The steps in claim 11 result in managing customer delivery by delivering to a customer at a location indicated by the customer mobile absent any technological mechanism other than a conventional computer for doing so.

---

<sup>6</sup> See, e.g., *Bilski*, 561 U.S. at 628; *Alice*, 573 U.S. at 219–20; *Ultramercial, Inc. v. Hulu, LLC*, 772 F.3d 709, 715 (Fed Cir. 2014); *Smart Sys. Innovations, LLC v. Chicago Transit Auth.*, 873 F.3d 1364, 1383 (Fed. Cir. 2017); *In re Marco Guldenaar Holding B.V.*, 911 F.3d 1157, 1160–61 (Fed. Cir. 2018).

<sup>7</sup> See, e.g., *Benson*, 409 U.S. at 67; *CyberSource Corp. v. Retail Decisions, Inc.*, 654 F.3d 1366, 1371–72 (Fed. Cir. 2011); *Intellectual Ventures I LLC v. Symantec Corp.*, 838 F.3d 1307, 1318 (Fed. Cir. 2016).

As to the specific limitations, limitations 1–4 recite generic and conventional analyzing, receiving, transmitting, and processing of customer delivery data, which advise one to apply generic functions to get to these results. The limitations thus recite advice for delivering to a customer at a location indicated by the customer mobile. To advocate delivering to a customer at a location indicated by the customer mobile is conceptual advice for results desired and not technological operations.

The Specification at 2:23–26 describes the invention as relating to providing location information to a drone system, continuously or at random or short intervals which a drone can use to approach a user dynamically. Thus, all this intrinsic evidence shows that claim 11 recites managing customer delivery. This is consistent with the Examiner’s determination.

This in turn is an example of commercial or legal interactions as a certain method of organizing human activity because managing customer delivery fulfills a commercial transaction. The concept of managing customer delivery by delivering to a customer at a location indicated by the customer mobile is one idea for managing the information for the delivery. The steps recited in claim 11 are part of how this might conceptually be premised.

From this we conclude that at least to this degree, claim 11 recites managing customer delivery by delivering to a customer at a location indicated by the customer mobile, which is a commercial and legal interaction, one of certain methods of organizing human activity identified in the Revised Guidance, and, thus, an abstract idea.

STEP 2A Prong 2

The next issue is whether claim 11 not only recites, but is more precisely directed to this concept itself or whether it is instead directed to some technological implementation or application of, or improvement to, this concept i.e. integrated into a practical application.<sup>8</sup>

At the same time, we tread carefully in construing this exclusionary principle lest it swallow all of patent law. At some level, “all inventions ... embody, use, reflect, rest upon, or apply laws of nature, natural phenomena, or abstract ideas.” Thus, an invention is not rendered ineligible for patent simply because it involves an abstract concept. “[A]pplication[s]” of such concepts “ ‘to a new and useful end,’ ” we have said, remain eligible for patent protection. Accordingly, in applying the § 101 exception, we must distinguish between patents that claim the “ ‘buildin[g] block[s]’ ” of human ingenuity and those that integrate the building blocks into something more.

*Alice*, 573 U.S. at 217 (citations omitted).

Taking the claim elements separately, the operation performed by the computer at each step of the process is expressed purely in terms of results, devoid of implementation details. Steps 2 and 3 recite basic conventional data operations such as receiving, transmitting, generating, updating, and storing data. Steps 1 and 4 recite generic computer processing expressed in terms of results desired by any and all possible means and so present no more than conceptual advice.

Claim 11 additionally recites that a drone retrieves a product and approaches for delivery. As to this limitation,

---

<sup>8</sup> See, e.g., *Alice*, 573 U.S. at 223, discussing *Diamond v. Diehr*, 450 U.S. 175 (1981).

[t]he appropriate question is not whether the entire claim as a whole was “well-understood, routine [and] conventional” to a skilled artisan (i.e., whether it lacks novelty), but rather, . . . whether each of “the [elements] in the claimed [product] (apart from the natural laws themselves) involve well-understood, routine, conventional activity previously engaged in by researchers in the field,”

*Chamberlain Grp., Inc. v. Techtronic Indus. Co.*, 935 F.3d 1341, 1348–49 (Fed. Cir. 2019) (quoting *Mayo*, 566 U.S. at 73). Examples of drones used as such is so conventional, many have seen them on the evening news. To the extent Appellant considers such use in a waitressing context to be inventive, context cannot confer eligibility. “The Supreme Court and this court have repeatedly made clear that merely limiting the field of use of the abstract idea to a particular existing technological environment does not render the claims any less abstract.” *Affinity Labs of Texas, LLC v. DirecTV, LLC*, 838 F.3d 1253, 1259 (Fed. Cir. 2016).

All purported inventive aspects reside in how the data is interpreted and the results desired, and not in how the process physically enforces such a data interpretation or in how the processing technologically achieves those results.

Viewed as a whole, Appellant’s claim 11 simply recites the concept of managing customer delivery by delivering to a customer at a location indicated by the customer mobile as performed by a generic computer. This is no more than conceptual advice on the parameters for this concept and the generic computer processes necessary to process those parameters, and do not recite any particular implementation.

Claim 11 does not, for example, purport to improve the functioning of a computer itself. Nor does it effect an improvement in any other

technology or technical field. The 25+ pages of specification (excluding references page) do not bulge with disclosure, but only spell out different generic equipment<sup>9</sup> and parameters that might be applied using this concept and the particular steps such conventional processing would entail based on the concept of managing customer delivery by delivering to a customer at a location indicated by the customer mobile under different scenarios. They do not describe any particular improvement in the manner a computer functions. Instead, claim 11 at issue amounts to nothing significantly more than an instruction to apply managing customer delivery by delivering to a customer at a location indicated by the customer mobile using some unspecified, generic computer. Under our precedents, that is not enough to transform an abstract idea into a patent-eligible invention. *See Alice*, 573 U.S. at 225–26.

None of the limitations reflects an improvement in the functioning of a computer, or an improvement to other technology or technical field, applies or uses a judicial exception to effect a particular treatment or prophylaxis for a disease or medical condition, implements a judicial exception with, or uses a judicial exception in conjunction with, a particular machine or manufacture that is integral to the claim, effects a transformation or reduction of a particular article to a different state or thing, or applies or uses the judicial exception in some other meaningful way beyond generally linking the use of the judicial exception to a particular technological environment, such that the claim as a whole is more than a drafting effort designed to monopolize the exception.

---

<sup>9</sup> The Specification describes a mobile subscriber terminal, a drone, a server computer, and a communication network. Spec. 5:13–15.

The limitation of a drone delivering some product is a conventional and generic operation and the limitations recite normal and ordinary drone operation and use<sup>10</sup>. As such this recites no more than the conceptual idea for doing so. To the extent limitation 3 is interpreted as improving the ability of a drone to find a moving target, this limitation and the remaining claim limitations recite no implementation details for doing so. Limitation 3 simply recites the conceptual idea of repeatedly sending data. The Specification provides no more implementation details, only stating that “the at least one drone 120 is configured to retrieve the product and/or prepare for delivery of service and/or product and approach the mobile subscriber location that is optionally being sent multiple times to the drone 120 until the product or service is delivered.” Spec. 12:20–23. Also

at least one drone (120) is configured to retrieve the product and/or prepare for delivery of service and approach the mobile subscriber location that is optionally being sent multiple times to the drone 120 until the product or service is delivered. Alternatively, the product or service is delivered to another location specified by the user from the mobile subscriber terminal, and this location can also be sent multiple times, especially when it changes, e.g. due to the movement of the person and/or drone to whom the delivery has been sent.

Spec. 14:5–12. Also

the drone prepares for delivery of service and approaches the mobile subscriber terminal location while carrying the mug of Diet Coke. This location is optionally being sent wirelessly multiple times to the drone until the Diet Coke is delivered in phase 340, which allows the customer to move around, as the drone will bring the Diet Coke to where ever he happens to be

---

<sup>10</sup> The Specification defines a drone as “the drone is essentially a robot, a quadrocopter or any flying drone, or a self driving car.” Spec. 3:30–31.

with his mobile subscriber terminal that is transmitting the location.

Spec. 15:13–18.

All descriptions only state that the location data is sent wirelessly and multiple times. The limitations do not narrow or otherwise describe the path the location data traverses in doing so or how such transmission occurs. The absence of further details as to how this is done enforces the idea that navigation proceeds in the same conventional and generic manner. This is no more than the conceptual idea of refreshing information with time passage. This is not a technological application or implementation detail. It is conceptual advice.

We conclude that claim 11 is directed to achieving the result of managing customer delivery by advising one to deliver to a customer at a location indicated by the customer mobile, as distinguished from a technological improvement for achieving or applying that result. This amounts to commercial or legal interactions, which fall within certain methods of organizing human activity that constitute abstract ideas. The claim does not integrate the judicial exception into a practical application.

#### STEP 2B

The next issue is whether claim 11 provides an inventive concept because the additional elements recited in the claim provide significantly more than the recited judicial exception.

The introduction of a computer into the claims does not generally alter the analysis at *Mayo* step two.

[T]he mere recitation of a generic computer cannot transform a patent-ineligible abstract idea into a patent-eligible invention. Stating an abstract idea “while adding the words ‘apply it’” is not enough for patent eligibility. Nor is limiting the use of an



abstract idea “to a particular technological environment.” Stating an abstract idea while adding the words “apply it with a computer” simply combines those two steps, with the same deficient result. Thus, if a patent’s recitation of a computer amounts to a mere instruction to “implement[t]” an abstract idea “on . . . a computer,” that addition cannot impart patent eligibility. This conclusion accords with the preemption concern that undergirds our § 101 jurisprudence. Given the ubiquity of computers, wholly generic computer implementation is not generally the sort of “additional feature[e]” that provides any “practical assurance that the process is more than a drafting effort designed to monopolize the [abstract idea] itself.”

*Alice*, 573 U.S. at 223–24 (citations omitted).

“[T]he relevant question is whether the claims here do more than simply instruct the practitioner to implement the abstract idea [] on a generic computer.” *Alice*, 573 U.S. at 225. They do not.

Taking the claim elements separately, the function performed by the computer at each step of the process is purely conventional. Using a computer for analyzing, receiving, transmitting, and processing data amounts to electronic data query and retrieval—one of the most basic functions of a computer. All of these computer functions are generic, routine, conventional computer activities that are performed only for their conventional uses. *See Elec. Power Grp. LLC v. Alstom S.A.*, 830 F.3d 1350, 1353 (Fed. Cir. 2016). *See also In re Katz Interactive Call Processing Patent Litig.*, 639 F.3d 1303, 1316 (Fed. Cir. 2011) (“Absent a possible narrower construction of the terms ‘processing,’ ‘receiving,’ and ‘storing,’ . . . those functions can be achieved by any general purpose computer without special programming”). None of these activities is used in some unconventional manner nor does any produce some unexpected result.

Appellant does not contend it invented any of these activities. In short, each step does no more than require a generic computer to perform generic computer functions. As to the data operated upon, “even if a process of collecting and analyzing information is ‘limited to particular content’ or a particular ‘source,’ that limitation does not make the collection and analysis other than abstract.” *SAP America, Inc. v. InvestPic LLC*, 898 F.3d 1161, 1168 (Fed. Cir. 2018).

Considered as an ordered combination, the computer components of Appellant’s claim 11 add nothing that is not already present when the steps are considered separately. The sequence of data analysis-reception-transmission-processing is equally generic and conventional. *See Ultramercial, Inc. v. Hulu, LLC*, 772 F.3d 709, 715 (Fed. Cir. 2014) (sequence of receiving, selecting, offering for exchange, display, allowing access, and receiving payment recited an abstraction), *Inventor Holdings, LLC v. Bed Bath & Beyond, Inc.*, 876 F.3d 1372, 1378 (Fed. Cir. 2017) (sequence of data retrieval, analysis, modification, generation, display, and transmission), *Two-Way Media Ltd. v. Comcast Cable Communications, LLC*, 874 F.3d 1329, 1339 (Fed. Cir. 2017) (sequence of processing, routing, controlling, and monitoring). The ordering of the steps is therefore ordinary and conventional.

We conclude that claim 11 does not provide an inventive concept because the additional elements recited in the claim do not provide significantly more than the recited judicial exception.

#### REMAINING CLAIMS

Claim 11 is representative. The remaining method claims merely describe process parameters. We conclude that the method claims at issue

are directed to a patent-ineligible concept itself, and not to the practical application of that concept.

As to the structural claims, they

are no different from the method claims in substance. The method claims recite the abstract idea implemented on a generic computer; the system claims recite a handful of generic computer components configured to implement the same idea. This Court has long “warn[ed] ... against” interpreting § 101 “in ways that make patent eligibility ‘depend simply on the draftsman’s art.’”

*Alice*, 573 U.S. at 226. As a corollary, the claims are not directed to any particular machine.

#### LEGAL CONCLUSION

From these determinations we further determine that the claims do not recite an improvement to the functioning of the computer itself or to any other technology or technical field, a particular machine, a particular transformation, or other meaningful limitations. From this we conclude the claims are directed to the judicial exception of the abstract idea of certain methods of organizing human activity as exemplified by the commercial and legal interaction of managing customer delivery by advising one to deliver to a customer at a location indicated by the customer mobile, without significantly more.

#### APPELLANT’S ARGUMENTS

We are not persuaded by Appellant's argument that

Applicant firmly disagrees with the decision that waitressing technology is not patent eligible. The USPTO is inconsistent and arbitrary, because many waitressing technologies, such as reservation and invoicing systems are being patented all the time, and rightfully so.

The claims define a previously unknown, unconventional social drone. The social drone waiter that can find customers when they roam inside the restaurant and with which the customers can interact with ease via the social network is a concrete idea that was unknown and highly unconventional at the time of the invention.

Appeal Br. 6. The issue is not whether a technology is eligible. The issue is whether the claims are eligible. Appellant's contention that such technology is patented previously only highlights this distinction. Such patents are eligible because the claims as drafted in those patents are eligible. Appellant does not show how any of the claims in such patents are similar to the instant claims. The claims do not define or recite a previously unknown, unconventional social drone. Instead, exemplary claim 11 recites "at least one drone," a generic drone. None of the claims further limit the drone structure other than it be capable of delivering some package and be able to receive data signals. Such limitations are generic and conventional. Appellant tellingly defines "the social drone waiter that can find customers when they roam inside the restaurant and with which the customers can interact with ease via the social network" as an idea, which is a concept. That such an idea is unconventional cannot confer eligibility. The inventive element cannot be an abstract idea.

Yet wireless transmission is the only aspect of the claims that CGI points to as allegedly inventive over the prior art. . . . Wireless communication cannot be an inventive concept here, because it is the abstract idea that the claims are directed to. Because CGI does not point to any inventive concept present in the ordered combination of elements beyond the act of wireless communication, we find that no inventive concept exists in the asserted claims sufficient to transform the abstract idea of communicating status information about a system into a patent-eligible application of that idea.

*Chamberlain Grp.*, 935 F.3d at 1349. Chamberlain Group (CGI) patented a wireless process for controlling a garage door. Much as Appellant argues as to drones, garage doors are the subject of numerous prior patents. But in *Chamberlain*, the Court found the claims were directed to wirelessly communicating status information about a system. *Id.* All the remaining limitations were conventional. That they were physical did not confer eligibility. The inventive concept was wireless communication, which the Court held to be an abstract idea.

Analogously, in the instant claims, the drone, mobile terminal, and server, along with communications among them, are all conventional. The inventive concept is that of sending a location signal to the drone multiple times. Much like the concept of wireless communication in *Chamberlain*, this idea of transmitting location data multiple times is both conventional and a conceptual idea. Sending locating signals to aid navigation multiple times is the conceptual basis for conventional homing beacons.<sup>11</sup>

We are not persuaded by Appellant's argument that

claims 6–10 and 16–21 and 34–38 should still be allowed. At best, only the method claims might be argued to describe or relate to a "business practice". However, it is clear that the

---

<sup>11</sup> See, e.g., Homing System definition as a navigational system for homing in on a beacon, transponder, or other target, Morris, Christopher G., Morris, Christopher W. Academic Press Dictionary of Science and Technology. Faroe Islands: Elsevier Science, p. 1038, 1992.

[https://www.google.com/books/edition/Academic\\_Press\\_Dictionary\\_of\\_Science\\_and/nauWIPTBcjIC?hl=en&gbpv=0](https://www.google.com/books/edition/Academic_Press_Dictionary_of_Science_and/nauWIPTBcjIC?hl=en&gbpv=0)

Also see e.g., Radio Homing Beacon, New Construction Navigational Aids: Construction Design Information. United States: Department of the Air Force, p. 91, 1958. [https://www.google.com/books/edition/New\\_Construction\\_Navigational\\_Aids/N\\_wL10NjgesC?hl=en&gbpv=0](https://www.google.com/books/edition/New_Construction_Navigational_Aids/N_wL10NjgesC?hl=en&gbpv=0)

software program and the drone system claims relate to computers and robotics which are both patent eligible fields.

Reply Br. 2. Fields are never eligible, claims sometimes are. The eligibility of the claims, not of entire fields, is at issue. The analysis *supra* supports the conclusion that the claims are ineligible.

*Claims 6–21 and 34–38 rejected under 35 U.S.C. § 103(a) as unpatentable over Ganesh and Jones*

Claims 6, 11, 16, and 34 are independent. Claims 6 and 16 are software claims. Claim 11 is a method claim. Claim 34 is a system claim. Apart from the differences in such drafting style, the substance of all four claims is similar. A customer selects a product or service and a drone delivers the product or service. To do so, some application receives location information from a customer wireless device and transmits the location data multiple times to the drone. The result is that if the customer moves, the drone still delivers the product or service because the location is transmitted multiple times. The sole issue argued is whether it was known or otherwise predictable to transmit the location multiple times to the drone.

We are not persuaded by Appellant's argument that

Jones does not disclose the mobile station sending the location multiple times. The customer location is given only once. The drone path may be updated continuously in Jones. However, this drone path update of Jones is not even similar to the "homing in" type of implementation of the invention, where the location of the customer is updated multiple times, and the destination is continuously changing. In Jones, the customer stays still, but the path to the customer may be updated. In the invention the customer can move, as the destination (=customer location) of the drone path is continuously updated.

App. Br. 6. Also

[w]ith regard to 103, paragraph 68 of Jones reference describes updating a path of a drone, and mobiles updating location data. This is all very general and the conclusion of the Examiner is incorrect. Mobiles are updating data all the time. Drones are changing paths all the time. In paragraph 81 the customer can provide location data to the network. Of course he can. There is nothing in paragraphs 68, 81 that would suggest that the location of the mobile of the consumer, to whom the delivery is aimed at, is updated multiple times to the drone to accommodate for the movement of the consumer, and allow the drone to "home in" on the consumer to make the delivery.

Reply Br. 2–3. The problem for Appellant is that Jones is fairly explicit and on point, so Appellant is left with arguing that Jones does not really mean what a reader would think.

To begin, Jones at paragraphs 67–68 describes a customer at a mall, a forum in which customers are ambulatory and generally non-stationary. Jones is not describing delivery to a fixed home address or location in this example. The customer's mobile device transmits location information to a drone via an application server. Jones also describes updating the location and travel path, which includes the location, continuously. One of ordinary skill would take from this that the drone cannot rely entirely on the initial location, meaning the customer is potentially moving, particularly as this occurs in a shopping mall context. In any event, Jones explicitly describes resending location information continuously, which means multiple times. Although Jones does not say this continuous update reaches the drone in the same sentence, this description immediately follows the sentence describing the location information reaching the drone. This is a classic example of a transitive formulation, i.e. the location information is sent to the drone; the location information is updated continuously; therefore the location information is understood to be sent to the drone continuously. Jones

describes the drone using this information to navigate to the customer location in a mall and describes the drone communicating at least indirectly with the customer device. FF 07. Jones describes an alternate context in which customer location is provided to the drone in real time through Google Maps. FF 08. Appellant does not provide evidence to counter these facts, but provides conclusory argument instead. An additional problem for Appellant is that the customer is not part of the system, and so the argued customer movement is neither a process step nor structural component of any of the claims. The claims require multiple sending of location data to the drone, not customer movement.

Thus, one of ordinary skill would understand Jones to describe the customer mobile device sending location data automatically and multiple times to the drone as recited in claim 11, limitation 3. The final limitation of claim 11 recites the drone relying on this data, which one of ordinary skill would understand to be the expected outcome of Jones's transmissions. Again, Jones describes the drone using this information to navigate to the customer location.

#### CONCLUSIONS OF LAW

The rejection of claims 6–21 and 34–38 under 35 U.S.C. § 101 as directed to a judicial exception without significantly more is proper.

The rejection of claims 6–21 and 34–38 under 35 U.S.C. § 103(a) as unpatentable over Ganesh and Jones is proper.



CONCLUSION

The rejection of claims 6–21 and 34–38 is affirmed.

In summary:

<b>Claims Rejected</b>	<b>35 U.S.C. §</b>	<b>Basis</b>	<b>Affirmed</b>	<b>Reversed</b>
6–21, 34–38	101	Eligibility	6–21, 34–38	
6–21, 34–38	103	Ganesh, Jones	6–21, 34–38	
<b>Overall Outcome</b>			6–21, 34–38	

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a). *See* 37 C.F.R. § 1.136(a)(1)(iv) (2011).

AFFIRMED