IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF VIRGINIA
Alexandria Division

IN RE: TLI COMMUNICATIONS LLC PATENT LITIGATION	)	
	)	**MDL No. 1:14md2534**
This document relates to ALL member cases	)	

MEMORANDUM OPINION

The remaining, but still numerous, defendants[1] in this multidistrict litigation ("MDL") patent infringement action have filed a consolidated motion to dismiss that raises, *inter alia*, the following two important and potentially dispositive questions:

(1) Whether the patent at issue, United States Patent 6,038,295, titled an "Apparatus and Method for Recording, Communicating and Administering Digital Images" (hereinafter "'295 patent"), is invalid because it claims patent-ineligible subject matter under 35 U.S.C. § 101; and

(2) Whether Claims 1 and 25 of the '295 patent contain means-plus-function terms, and if so, whether these claims are fatally indefinite under 35 U.S.C. § 112(f) for failing to disclose corresponding structure.

For the reasons that follow, defendants' motion to dismiss on § 101 and § 112(f) grounds must be granted:

(1) The '295 patent is directed to an abstract idea and lacks an inventive concept, making it ineligible for patent protection under § 101; and

(2) Claims 1 and 25 of the '295 patent contain means-plus-function terms without disclosing corresponding structure and these claims are therefore fatally indefinite pursuant to § 112(f).

[1] Initially, plaintiff sued 30 defendants in this consolidated MDL action. Since then, stipulations of dismissal have been filed with respect to the following defendants: (1) Max Media LLC, (2) For a Song Inc., (3) WHI, Inc., (4) Photobucket.com, Inc., (5) Smugmug, Inc, (6) Lucidiom, Inc., and (7) Richmond Camera Shop, Inc.

I.

A.

Plaintiff TLI Communications LLC ("TLI"), a Delaware limited liability corporation, is a non-producing entity and the owner by assignment of the '295 patent.[2] The twenty-three remaining defendants in this consolidated MDL action include various social media and software entities.[3]

The '295 patent, titled an "Apparatus and Method for Recording, Communicating and Administering Digital Images," is directed to an apparatus and method that

> simplifies transmission of digital images which have been recorded, optimizes the communication of the image data and provides a method for administering the storage of the digital images, which is simple, fast and surveyable so that the digital images may be archived.

'295 patent, col.1, l.66-col.2, l.4. The '295 patent has 26 claims: 3 independent claims and 23 dependent claims. Independent Claim 1 is a system claim, independent Claim 17 is a method claim, and independent Claim 25 is an apparatus claim.

Independent Claim 1, a system claim, consists of:

> A communication system for recording and administering digital images, comprising:

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[2] It is undisputed that plaintiff owns all right, title and interest in the '295 patent and is therefore a proper plaintiff. *See Suffolk Technologies LLC v. AOL Inc.*, 910 F. Supp. 2d 850, 860 (E.D. Va. 2012) (noting that assignee possessed "core rights to practice the patent and to enforce the patent"). *See also Morrow v. Microsoft Corp.*, 499 F.3d 1332, 1339 (Fed. Cir. 2007) (noting that assignee held the "entire bundle of sticks" with respect to the patent and was entitled "to sue for infringement in its own name").

[3] The remaining defendants are: (1) AV Automotive, LLC., (2) Apple Inc., (3) Hall Automotive, LLC, (4) Yahoo! Inc., (5) Tumlbr, Inc., (6) Twitter, Inc., (7) Google, Inc., (8) Pinterest, Inc., (9) Facebook, Inc., (10) Instagram, LLC, (11) Dropbox Inc., (12) IAC/InterActiveCorp., (13) CityGrid Media LLC, (14) Vimeo LLC, (15) Imgur LLC, (16) Shutterfly Inc., (17) TripAdvisor Inc., (18) TripAdvisor LLC, (19) Snapchat Inc., (20) Yelp Inc., (21) Capitol One Financial Corporation, (22) Capital One, N.A., and (23) Capital One Services, LLC.

at least one telephone unit including:
a telephone portion for making telephone call,
a digital pick up unit for recording images,
a memory for storing digital images recorded by the digital image pick up unit,
means for allocating classification information prescribed by a user of said at least one telephone unit to characterize digital images obtained by said digital pick up unit,
a processor for processing the digital images recorded by the digital image pick up unit;
a server including the following components:
a receiving unit for receiving data sent from said at least one telephone unit,
an analysis unit for analyzing the data received by the receiving unit from the telephone unit,
the data including classification information to characterize the digital images,
a memory in which at least the digital images are archived, the archiving taken [sic] into consideration the classifying information; and
a transmission system coupled to said at least one telephone unit and to the said server to provide for transmission of data from said at least one telephone unit and to the said server, the data including at least the digital images recorded by the digital image pick up unit and classification information.

The claimed communication system describes two components: (1) at least one telephone unit and (2) a server. The '295 patent specification describes the telephone unit as including the "standard features of a telephone unit including, for example, an earphone . . . a keypad . . . which serves as an operating field for the telephone unit . . . as well as a microphone . . . ." '295 patent, col.5, ll.55-58. As Claim 1 indicates, the telephone unit consists of a digital pick up unit, a memory, a means for allocating classification information, and a processor. The digital image pick up unit is integrated into the telephone unit and operates as a "digital photo camera of the type which is known." *Id.*, col.5, ll.59-61, col.6, ll.1-2. Thus, "recording images" is the function of the digital image pick up unit. *Id.*, col.5, l.59. These images may be compressed using "still picture image data compression methods" and are then stored using the telephone unit memory.

Id., col.6, ll.2-6. Also stored with the digital images is classification information—information associated with the digital images[4]—which is allocated using "the allocation means." *Id.*, col.6, ll.46-47. The telephone unit also includes a data processor which processes the digital images and can be used for other processing tasks such as pattern recognition or voice recognition. *Id.*, col.6, ll.8-12.

The second part of the communication system is the server which is comprised of a receiving unit for "receiving the data that is sent from the telephone unit," and an analysis unit, which serves to "analyze the image content and record the image according to the meaning derived from the image analysis." *Id.*, col.5, ll.6-8, col.6, l.65-col.7, l.1. The data is sent from the telephone unit to the receiving unit "via the transmission system." *Id.*, col.5, ll.6-7. The server itself then provides a "memory . . . for storing the data, as well as the digital images which [are] contained in the data." *Id.*, col.5, ll.11-13. The classification information is transmitted to the server from the telephone unit and is "used for archiving the images in the server memory." *Id.*, col.7, ll.52-55. The classification information "characterize[s] the digital images." *Id.*, col.2, l.18.

Dependent claims 2-8 build upon Claim 1 by adding the following limitations to the communication system: wirelessly coupling the transmission system to a telephone unit (Claim 2),[5] implementing a speech recognition unit (Claim 3),[6] incorporating audio data as the

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[4] Importantly, the term "classification information" is a disputed claim term, as plaintiff argues that "classification information" should be given its plain and ordinary meaning and needs no further construction. Defendants argue instead that "classification information" should be construed to mean "information explicitly input by a user to characterize an individual image."

[5] *See* '295 patent, col.9, ll.13-15 ("A communication system as claimed in claim 1, wherein said transmission system is wirelessly coupled to said at least one telephone unit.").

classification information (Claim 4),[7] including spoken language as the classification information (Claim 5),[8] including time information as the classification information, (Claim 6),[9] and incorporating the telephone number (Claim 7)[10] and location memory (Claim 8)[11] as the classification information prescribed by the user. Dependent claim 9 also incorporates the "communication system as claimed in claim 1," but specifies that the "server includes a data bank system." *Id.*, col.9, ll.41-42.

Dependent claim 10 adds an "image analysis unit for determining quality of the digital images." *Id.*, col.9, ll.44-45. And dependent claim 11 includes a "control unit for controlling resolution of digital images in said at least one telephone unit." *Id.*, col.9, ll.47-49. Dependent claim 15 also includes a control unit, but the control unit controls "a transmission rate of data used in the transmission system for transmission of the digital images." *Id.*, col.9, ll.60-62. Dependent claim 16 provides for "a control unit for controlling resolution of digital images in

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[6] *See id.*, col.9, ll.16-18 ("A communication system as claimed in claim 1, wherein said at least one telephone unit further comprises a speech recognition unit.").

[7] *See id.*, col.9, ll.19-22 ("A communication system as claimed in claim 1, wherein said at least one telephone unit further comprises means for incorporating audio data as the classification information.").

[8] *See id.*, col.9, ll.23-27 ("A communication system as claimed in claim 4, wherein the audio data is language spoken into said at least one telephone unit, said at least one telephone unit including means for including spoken language as the classification information.").

[9] *See id.*, col.9, ll.28-32 ("A communication system as claimed in claim 1, wherein said communication system includes a means for incorporating time information of image recording and/or image transmission of image data as the classification information.").

[10] *See id.*, col.9, ll.33-36 ("A communication system as claimed in claim 1, wherein said classification information includes at least a telephone number of said at least one telephone unit and/or a telephone number of said server.").

[11] *See id.*, col.9, ll.37-40 ("A communication system as claimed in claim 1, wherein said classification information includes particular location information in memory at which the digital images are to be stored.").

said at least one telephone unit and controlling a transmission rate of data used in the transmission system for transmission of the digital images." *Id.*, col.9, ll.64-67. Finally, dependent claims 12 and 13 provide for analysis of speech signals (Claim 12)[12] and having the server include a speech synthesis unit (Claim 13),[13] while dependent claim 14 provides that the server is connected to the telephone unit via the Internet.[14]

The next independent claim in the '295 patent is the method claim, Claim 17, which describes:

> A method for recording and administering digital images, comprising the steps of:
> recording images using a digital pick up unit in a telephone unit,
> storing the images recorded by the digital pick up unit in a digital form as digital images,
> transmitting data including at least the digital images and classification information to a server, wherein said classification information is prescribable by a user of the telephone unit for allocation to the digital images,
> receiving the data by the server,
> extracting classification information which characterizes the digital images from the received data, and
> storing the digital images in the server, said step of storing taking into consideration the classification information.

Specifically, the "images are recorded with the digital image pick up unit that is integrated into the telephone unit." *Id.*, col.7, ll.57-59. The images are next "stored in digital form in the telephone unit memory . . . as digital images." *Id.*, col.7, ll.60-61. The images are then transmitted "from the telephone unit . . . to the server . . . via the transmission system." *Id.*,

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[12] *See id.*, col.9, ll.50-53 ("A communication system as claimed in claim 1, wherein said analysis unit includes means for analyzing speech signals, said speech signals being provided as portions of the classification information.").

[13] *See id.*, col.9, ll.54-55 ("A communication system as claimed in claim 1, wherein said server includes a speech synthesis unit.").

[14] *See id.*, col.9, ll.56-58 ("A communication system as claimed in claim 1, wherein said server is connected to the said at least one telephone unit via the Internet.").

col.7, ll.61-64. The data is received by "the server . . . and the classification information . . . which characterize[s] the digital images [is] extracted . . . from the data received in the server." *Id.*, col.7, ll.64-67. Finally, the digital images along with "possibly the classification information . . . and potentially further information that characterize[s] or describe[s] the digital images are stored . . . in the server." *Id.*, col.7, l.67-col.8, l.3. The specification notes that during the "storing step, the classification information . . . is taken into consideration." *Id.*, col.8, ll.3-5. And importantly, the "classification information . . . may be prescribed by a user of the telephone unit." *Id.*, col.8, ll.6-7.

Claims 18-24 are dependent upon Claim 17 and describe specific types of data which are recognized by the system including: compressed recognized speech (Claim 18),[15] audio data (Claim 19),[16] audio data consisting of spoken language (Claim 20),[17] time information relating to the recording and transmission of the image (Claim 21),[18] the telephone number associated with the telephone unit and/or the server (Claim 22),[19] location information related to where the digital images are to be stored (Claim 23),[20] and digital character information (Claim 24).[21]

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[15] *See id.*, col.10, ll.18-20 ("A method as claimed in claim 17, further comprising: recognizing speech spoken into the telephone unit and storing the compressed recognized speech.").

[16] *See id.*, col.10, ll.21-24 ("A method as claimed in claim 17, further comprising the step of: incorporating audio data as the classification information.").

[17] *See id.*, col.10, ll.25-26 ("A method as claimed in claim 19, wherein the audio data includes language spoken into the telephone unit.").

[18] *See id.*, col.10, ll.27-31 ("A method as claimed in claim 17, further comprising the step of: providing time information of recording of the image and/or transmission of the data as a part of the classification information.").

[19] *See id.*, col.10, ll.32-36 ("A method as claimed in claim 17, further comprising the step of: providing a telephone number of the at least one telephone unit and/or of the server as a part of the classification information.").

The third and final independent claim in the '295 patent is Claim 25, an apparatus claim that claims:

> A digital image recording and administering apparatus, comprising:
> a portable telephone unit, including:
> a telephone portion having a keypad, a microphone, a speaker, an antenna, and a transmitter/receiver for telephone communications;
> a digital still camera in said portable telephone unit, said digital still camera having a lens, a shutter and a digital still image pickup;
> a data processor connected to receive digital still image data from said digital still image pickup and perform a compression to generate compressed digital still image data;
> a memory in said portable telephone unit, said memory connected to receive and store said compressed digital still image data from said data processor;
> a classification information unit in said portable telephone unit, said classification information unit allocating classifying information pertaining to the digital still image as prescribed by a user of the portable telephone unit to the digital still image data, said classification information unit including means to receive audio information from the user as the classification information and to allocate the classification information to the corresponding digital still image data;
> a server computer, including:
> a receiving unit operable to receive data sent from said portable telephone unit, said received data including the compressed digital still image data;
> an analysis unit connected to said receiving unit to extract the classification information from data sent from said portable telephone unit, said analysis unit extracting the classification information corresponding to the audio information from the user and allocated to the digital still image data;
> a memory in said server for storing the compressed digital still image data, said memory providing access to said compress [sic] digital still image data as an image archive in accordance with the classification information; and

[20] *See id.*, col.10, ll.37-41 ("A method as claimed in claim 17, further comprising the step of: providing location information in memory at which the digital images to be stored as a part of the classification information.").

[21] *See id.*, col.10, ll.42-46 ("A method as claimed in claim 17, further comprising the step of: providing digital character information as part of the classification information.").

> a transmission system operable to communicate between said portable telephone unit and server.

Claim 26, which depends upon claim 25, includes the limitation that the "classification information in said portable telephone unit includes a speech recognition unit which converts said audio information from said user to text data that is allocated to the digital still image data." *Id.*, col.12, ll.9-13.

B.

Plaintiff initially brought suit for patent infringement against sixteen defendants in the United States District Court for the District of Delaware on November 18, 2013. Defendants jointly moved to dismiss plaintiff's complaints on January 17, 2014. On February 10, plaintiff filed amended complaints in the United States District Court for the District of Delaware against ten of the defendants, and voluntarily dismissed the other six pending suits. The voluntarily dismissed cases were immediately re-filed against the same defendants in the United States District Court for the Eastern District of Virginia, along with an additional case which was filed against two smaller Virginia companies. In response, on February 26, defendant Facebook filed a motion with the Judicial Panel on Multidistrict Litigation ("JPML") to transfer and consolidate pretrial proceedings.

On June 12, 2014, the JPML transferred all 17 infringement suits to the Eastern District of Virginia pursuant to 28 U.S.C. § 1407, citing common questions of fact along with convenience as the primary reasons for consolidating all 17 individual suits into a single multidistrict litigation.[22] Shortly after the transfer, an initial Order issued, governing the general practice and procedure in all of the transferred actions.[23]

Thereafter, on July 11, defendants Facebook and Instagram moved to stay the multidistrict litigation pending a petition for *inter partes* review by the Patent and Trademark Office ("PTO") as to the validity of the '295 patent. The remaining defendants in this MDL action subsequently joined the motion. After full briefing and argument, the motion to stay was granted pending the PTO's decision on whether to institute an *inter partes* proceeding.[24] On September 15, the Patent Trial and Appeal Board ("PTAB") denied the petition for *inter partes* review, finding that defendants had not demonstrated a reasonable likelihood that at least one of the challenged claims of the '295 patent was unpatentable.[25] Two days later, the stay in this forum was lifted and a Revised Scheduling Order issued governing the briefing with respect to defendants' individual motions to dismiss and claim construction.[26] An initial status conference was then held in this matter, after which the dates in the Revised Scheduling Order were further revised.[27] In accordance with the October 16 Order, defendants filed a single consolidated motion to dismiss plaintiff's complaint pursuant to Rule 12(b)(6), Fed. R. Civ. P., arguing, among other things, that the '295 patent is directed to ineligible subject matter under 35 U.S.C. §

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[22] *See In re: TLI Communications LLC Patent Litigation*, 26 F. Supp. 3d 1396, 1397-98 (J.P.M.L. 2014).

[23] *See In re: TLI Communications LLC Patent Litigation*, No. 1:14md2534 (E.D. Va. July 10, 2014) (Initial Order).

[24] *See In re: TLI Communications LLC Patent Litigation*, No. 1:14md2534 (E.D. Va. Aug. 11, 2014) (Order).

[25] *See Facebook, Inc. v. TLI Communications LLC*, Case IPR2014-00566, 2014 WL 4644360, at *1 (PTAB Sept. 15, 2014) (hereinafter "PTAB Decision").

[26] *See In re: TLI Communications LLC Patent Litigation*, No. 1:14md2534 (E.D. Va. Sept. 17, 2014) (Revised Scheduling Order).

[27] *See In re: TLI Communications LLC Patent Litigation*, No. 1:14md2534 (E.D. Va. Oct. 16, 2014) (Order).

101 and that multiple claims in the '295 patent are indefinite under 35 U.S.C. § 112(f) because they contain means-plus-function terms without disclosing corresponding structure. The parties fully briefed the issues raised in the dismissal motion.[28] Furthermore, in accordance with the October 16 Order, the parties fully briefed their positions on the disputed claim terms pursuant to *Markman v. Westview Instruments, Inc.*, 517 U.S. 370 (1996). Extensive oral argument on defendants' motion to dismiss and the claim term disputes was held at the University of Virginia School of Law on Tuesday, January 20, 2015 from 1 p.m. to 5 p.m.,[29] and at the Albert V. Bryan Courthouse in Alexandria on Friday, January 30, 2015 from 2 p.m. to 5 p.m. Supplemental oral argument on selected issues was held via a telephone conference on Tuesday, February 3, 2015 from 3:30 p.m. to 4:15 p.m. As such, defendants' motion is now ripe for disposition.

II.

Section 101 of Title 35, which defines the subject matter eligible for patent protection, provides as follows:

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

In two recent decisions—*Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 132 S.Ct. 1289 (2012) and *Alice Corp. Pty. Ltd. v. CLS Bank Int'l.*, 134 S.Ct. 2347 (2014)—the Supreme Court invalidated patents for failing to pass muster under § 101, and in doing so, significantly altered

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[28] Notably, the parties' briefs addressing defendants' motion to dismiss totaled more than 110 pages, not including the voluminous exhibits accompanying the briefs.

[29] Oral argument at the University of Virginia School of Law occurred as a result of an invitation by Professors John Duffy and Margo Bagley, well-known scholars and teachers of intellectual property law at the University of Virginia School of Law. It was their view and this court's view that it would be beneficial and perhaps even inspirational to students of their patent law class to see significant and topical issues in patent law argued by accomplished and experienced lawyers.

the § 101 legal landscape. Prior to *Alice* and *Mayo*, courts generally regarded § 101 as no more than a "coarse [patent] eligibility filter." *Research Corp. Techs., Inc. v. Microsoft Corp.*, 627 F.3d 859, 869 (Fed. Cir. 2010). That description is no longer accurate; *Alice* and *Mayo* make clear that § 101 is now a much finer patent eligibility filter. As one district court accurately noted, the Supreme Court, in its last few terms, "has indicated that patentability [under § 101] is a higher bar." *Enfish, LLC v. Microsoft Corp.*, No. 2:12-cv-07360, 2014 WL 5661456, at *2 (C.D. Cal. Nov. 3, 2014). In part, this shift in the role of § 101 is driven by the concern that a "robust application of section 101 ensures that the nation's patent laws remain tethered to their constitutional moorings." *I/P Engine, Inc. v. AOL Inc.*, 576 F. App'x 982, 996 (Fed. Cir. 2014) (Mayer, J., concurring).[30]

Section 101's broad language provides little specific or detailed guidance as to what constitutes patentable subject matter. Nonetheless, over the years, the Supreme Court has carved out three subject matter categories that are not patentable: (i) laws of nature, (ii) natural phenomena, and (iii) abstract ideas. *See Alice*, 134 S.Ct. at 2354.[31] Laws of nature, natural

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[30] It is important to note that in conjunction with applying a more stringent § 101 standard, courts are also adjudicating § 101 challenges earlier in the litigation process, as "[s]ubject matter eligibility challenges provide the most efficient and effective tool for clearing the patent thicket, weeding out those patents that stifle innovation and transgress the public domain." *Ultramercial Inc. v. Hulu, LLC*, 772 F.3d 709, 719 (Fed. Cir. 2014) (Mayer, J., concurring). As such, "claim construction is not an inviolable prerequisite to a validity determination under § 101." *Bancorp Servs., L.L.C. v. Sun Life Assur. Co. of Canada*, 687 F.3d 1266, 1273 (Fed. Cir. 2012).

[31] Nor are these exceptions new; the Supreme Court has "interpreted § 101 and its predecessors in light of [these exceptions] for more than 150 years." *Alice*, 134 S.Ct. at 2354. Although these three exceptions are not mentioned in the statute, they are "consistent with the notion that a patentable process must be new and useful." *DietGoal Innovations LLC v. Bravo Media LLC*, No. 13 Civ. 8391 (PAE), 2014 WL 3582914, at *5 (S.D.N.Y. July 8, 2014). One noted commentator has observed that the creation of these exceptions was necessary for a full

phenomena, and abstract ideas are excluded from the protection of § 101 in large measure because "monopolization of those tools through the grant of a patent might tend to impede innovation more than it would tend to promote it." *Mayo*, 132 S.Ct. at 1293. At the same time, however, the Supreme Court has recognized that each of these three excluded categories must have limits, "lest it swallow all of patent law," because, at some level, "all inventions . . . embody, use, reflect, rest upon, or apply laws of nature, natural phenomena, or abstract ideas." *Alice*, 134 S.Ct. at 2354. It follows that an invention is not ineligible for patent protection simply because it involves one of the three common law exceptions to § 101. *See id.*

Thus, the Supreme Court has crafted a two-step analysis to guide lower courts in the task of distinguishing subject matter eligible for patent protection under § 101 from subject matter ineligible for such protection. The first step in the analysis is to determine whether the claims at issue are directed to one of those "patent-ineligible concepts [laws of nature, natural phenomena, or abstract ideas]." *Id.* at 2355 (citing *Mayo*, 132 S.Ct. at 1296-97). An idea is abstract if it has "no particular concrete or tangible form." *Ultramercial*, 772 F.3d at 715. An abstract idea need not be a "preexisting, fundamental truth" and can instead merely be a "longstanding commercial practice." *Alice*, 134 S.Ct. at 2356. And a "method that can be performed by human thought alone" is an abstract idea. *CyberSource Corp. v. Retail Decisions, Inc.*, 654 F.3d 1366, 1373 (Fed. Cir. 2011). In determining whether an idea in a software patent is abstract, courts must be careful to avoid allowing the typically convoluted claim language—"patent-ese"—to obfuscate the general purpose and real essence of software patent claims.

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implementation of § 101 by designating certain categories of subject matter as ineligible for patent protection under § 101 for policy reasons. *See* Mark A. Lemley et al., *Life After Bilski*, 63 STAN. L. REV. 1315, 1328 (2011).

If it is determined that a claim is directed to an abstract idea then the next step in the § 101 analysis is to ascertain whether the patent contains or is directed to an "inventive concept" that serves to "transform the nature of the claim" into patent-eligible subject matter. *Alice*, 134 S.Ct. at 2355. In this regard, it is settled that "well-understood, routine, conventional activity" is insufficient to constitute an inventive concept. *Mayo*, 132 S.Ct. at 1294. This is so because a claim that recites an abstract idea must include "additional features to ensure that the [claim] is more than a drafting effort designed to monopolize the [abstract idea]." *Alice*, 134 S.Ct. at 2357 (internal quotation marks and citations omitted). And limiting an abstract idea to a "particular technological environment" is similarly insufficient to pass muster under step two of the § 101 analysis. *Id.* at 2358.

Federal Circuit opinions issued since *Mayo* and *Alice* have elucidated this two-step analysis. In *Ultramercial*, the Federal Circuit sought to define what constitutes an abstract idea with somewhat greater precision, noting that an idea is abstract when it has "no particular concrete or tangible form," and is "devoid of a concrete or tangible application." *Ultramercial*, 772 F.3d at 715.[32] Also of note, the Federal Circuit explicitly incorporated the machine-or-transformation test[33] into the second step of the § 101 analysis, not as a determinative factor, but

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[32] *See also id.* at 722 (Mayer, J., concurring) ("An idea is impermissibly 'abstract' if it is inchoate—unbounded and still at a nascent stage of development. It can escape the realm of the abstract only through concrete application . . . . Precise instructions for implementing an idea confine the reach of a patent, ensuring that the scope of the claim is commensurate with [its] technological disclosure."). This is consistent with standard dictionary definitions of "abstract" and "idea." An "idea" is a thought, plan, or scheme, while "abstract" characterizes a thought, plan or scheme considered apart from any application to a particular object or specific instance. *See, e.g.*, Webster's Third New International Dictionary at 8, 1122 (1993).

[33] The machine-or-transformation test states that an invention is patentable if: "(1) it is tied to a particular machine or apparatus, or (2) it transforms a particular article into a different state or thing." *Bilski v. Kappos*, 561 U.S. 593, 602 (2010).

rather as a "useful clue" as to whether a patent contains an inventive concept. *Id.* at 716. In carrying out the § 101 analysis, the Federal Circuit in *Ultramercial* made clear that tying an abstract idea to a general purpose computer or to the Internet, without more, is generally insufficient to make an abstract idea patentable under both the *Alice/Mayo* test *and* under the machine-or-transformation test. *Id.* at 715-17.

Less than a month after *Ultramercial* issued, the Federal Circuit, in *DDR Holdings Inc. v. Hotels.com, L.P.*, 773 F.3d 1245 (Fed. Cir. 2014) upheld as patentable under § 101 a software patent that claimed a process of generating a website with the same "look and feel" as the host website when a third-party advertisement was selected by a user. *Id.* at 1248-49. In reaching this conclusion, the Federal Circuit held first that identifying the abstract idea underlying the patent was difficult, and more importantly, that the patent solved a problem unique to the Internet that did "not arise in the 'brick and mortar' context." *Id.* at 1258. In other words, the patent was valid under § 101 because it did not merely involve an abstract idea, but instead included an inventive concept that addressed a challenge "*particular* to the Internet." *Id.* at 1257 (emphasis added). The *DDR* opinion cautions that "not all claims purporting to address Internet-centric challenges are eligible for patent" protection. *Id.* at 1258. The opinion then goes on to distinguish *Ultramercial* helpfully by noting that the patent at issue in *DDR* specified how "interactions with the Internet are manipulated to yield a desired result," whereas the patent in *Ultramercial* simply relied on a computer operating in a "normal, expected manner." *Id.*

More recently, the Federal Circuit in *Content Extraction & Transmission LLC v. Wells Fargo Bank, N.A.*, No. 2014-1687, 2014 WL 7272219 (Fed. Cir. Dec. 23, 2014), invalidated a patent that recited a method of (i) extracting data from hard copy documents using an automated digitizing unit such as a scanner, (ii) recognizing specific information from the extracted data,

and (iii) storing that information in memory. *Id.* at *1. Applying the two-step § 101 analysis, the Federal Circuit held first that the patent was directed to an abstract idea, as the "concept of data collection, recognition, and storage is undisputedly well-known." *Id.* at *3. The Federal Circuit then found that the patent lacked an inventive concept beyond the use of a generic scanner and computer to perform "well-understood, routine, and conventional activities commonly used in industry." *Id.* at *4. Importantly, the Federal Circuit affirmed the district court's methodology in invalidating the patent under § 101 based on a single, "representative" claim, as the district court "correctly determined that addressing each claim of the asserted patents was unnecessary." *Id.*

III.

A.

The first step of the § 101 analysis with respect to the '295 patent is to "determine whether the claims at issue are directed to a patent-ineligible concept." *Alice*, 134 S.Ct. at 2355. Thus, in *Alice*, the Supreme Court focused on all of the claims at a high level of generality to determine that the claims were drawn to the "abstract idea of intermediated settlement." *Id.* Similarly, in *Bilski*, the Supreme Court determined that the claims at issue were directed to the "concept of hedging risk." *Bilski*, 561 U.S. at 609.

Here, the '295 patent claims at issue are clearly directed to the abstract idea of taking, organizing, classifying, and storing photographs. Nor is there any doubt that the idea of taking, organizing, classifying, and storing photographs qualifies as an abstract idea under *Alice* and *Mayo*. It is an abstract idea in that it describes a scheme or concept not tied to a particular concrete application. This conclusion finds firm support from the Federal Circuit's recent decision in *Cyberfone Sys., LLC v. CNN Interactive Group, Inc.*, 558 F. App'x 988, 992 (Fed.

Cir. 2014), in which the Federal Circuit held that the "well-known concept of categorical data storage, *i.e.*, the idea of collecting information in classified form, then separating and transmitting that information according to its classification is an abstract idea that is not patent eligible." Like the abstract idea of categorical data storage in *Cyberfone*, the taking, organizing, classifying, and storing of photographs in the '295 patent is a common practice that long-predates computers, as persons have taken, organized, classified, and stored photographs for more than a century without the aid of computers. Thus, this is clearly "a method that can be performed by human thought alone" and is therefore "merely an abstract idea and is not patent-eligible under § 101." *CyberSource*, 654 F.3d at 1373. As such, defendants are correct that at step one of the § 101 analysis, the '295 patent is directed to a patent-ineligible abstract idea.

Importantly, this conclusion applies with equal force to all of the claims in the '295 patent because where, as here, all of the claims are directed to the same abstract idea, the Federal Circuit teaches that "addressing each claim of the asserted patents . . . [is] unnecessary." *Wells Fargo*, 2014 WL 7272219, at *4. Rather, the § 101 analysis only needs to be carried out with respect to a "representative" claim and the results of that analysis can then be applied to the remaining claims in the patent. *See id.* Here, both parties focus the majority of their § 101 arguments on Claim 17—the method claim—and an evaluation of these arguments makes clear that Claim 17 is directed to an abstract idea. And this finding applies to the other claims in the '295 patent because Claim 17 is "representative" of the remaining claims in the '295 patent inasmuch as all of the claims in the '295 patent are directed to the same abstract idea. *See Alice*, 134 S.Ct. at 2360 (noting that "the system claims are no different from the method claims in substance"). Thus, all of the '295 patent claims are directed to the same abstract idea because, as one recent district court decision noted, "various claim types (method, system, etc.) directed to

the same invention should rise and fall together." *Amdocs (Israel) Ltd. v. Openet Telecom, Inc.*, No. 1:10cv910, 2014 WL 5430956, at *5 (E.D. Va. Oct. 24, 2014).

Plaintiff seeks to avoid this conclusion by arguing insistently that the '295 patent invented something new, and specifically contends (1) that the '295 patent contains novel limitations; (2) that the '295 patent represents an innovative technological development; and (3) that defendants place too much emphasis on whether the concept underlying the '295 patent could be carried out in the human mind independently of computers. Clearly, plaintiff's arguments relate chiefly to the purported novelty of the '295 patent. Yet, plaintiff's focus on novelty is misplaced; it conflates whether a patent is directed to eligible subject matter under § 101 with whether a patent meets § 102's novelty requirement. Indeed, the Supreme Court has unequivocally stated that the two inquiries are separate and distinct: "The question therefore of whether a particular invention is novel is wholly apart from whether the invention falls into a category of statutory subject matter." *Diamond v. Diehr*, 450 U.S. 175, 190 (1981) (internal quotation marks and citations omitted). In reaching this conclusion, the Supreme Court noted that although § 101 states that "new and useful" processes are eligible for patent protection, such a statement is simply a "general statement of the type of subject matter that is eligible for patent protection 'subject to the conditions and requirements of this title.'" *Id.* at 189. As such, the Supreme Court emphasized that the § 101 inquiry is distinct from other "[s]pecific conditions of patentability" including "§ 102 [which] covers in detail the conditions relating to novelty." *Id.*[34]

[34] To the extent that novelty has any relevance to the second step of the § 101 analysis, it is subsumed by the broader inquiry into whether the patent contains an inventive concept. *See Ultramercial*, 772 F.3d at 715 ("[A]ny novelty in implementation of the idea is a factor to be considered only in the second step of the *Alice* analysis."). In the wake of *Alice*, one district

Thus the alleged novelty of the '295 patent has limited, if any, relevance in determining whether the '295 patent is directed to patent-ineligible subject matter.[35]

In a similar vein, plaintiff argues that the '295 patent is not directed to a longstanding practice or idea because the idea of telephones transmitting digital images to servers is a recent technological development. This argument, like the previous argument, fails because it improperly imports novelty into the first step of the § 101 analysis. Moreover, the argument also fails because it focuses incorrectly on a concrete application of the idea—transmitting digital images to servers—instead of properly focusing at a higher level of generality on the abstract idea or concept underlying the '295 patent. Indeed, *Alice* supports rejection of plaintiff's novelty arguments. In *Alice*, the claim at issue recited a method for creating shadow records for each

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court has attempted to articulate the difference between novelty and eligibility under § 101: "To be novel, a patent claim must include an element not present in the prior art." *Cogent Med., Inc. v. Elsevier Inc.*, Nos. 13-4479, 4483, 4486, 2014 WL 4966326, at *4 n.3 (N.D. Cal. Sept. 30, 2014). By contrast, the "inventive feature question concerns whether the patent adds something to the abstract idea that is integral to the claimed invention" and is "better understood as referring to the abstract idea doctrine's prohibition on patenting fundamental truths, whether or not the fundamental truth was recently discovered." *Id.* In other words, novelty plays, at most, a limited role in the § 101 analysis inasmuch as it may have some relevance to whether the patent contains additional inventive features which, coupled with an abstract idea, render the patent eligible for protection under § 101.

[35] At oral argument, plaintiff's counsel urged that it is appropriate for the court, pursuant to R. 201, Fed. R. Evid., to take judicial notice of a German newspaper article purportedly lauding the novelty of the '295 patent. Judicial notice of the newspaper article is inappropriate because "[t]hat a statement of fact appears in a daily newspaper does not of itself establish that the stated fact is 'capable of accurate and ready determination by resort to sources whose accuracy cannot reasonably be questioned.'" *Cofield v. Ala. Public Serv. Comm'n*, 936 F.2d 512, 517 (11th Cir. 1991) (citing Federal Rule of Evidence 201(b)). Indeed, as counsel for defendants noted during oral argument, the '295 patent specification notes that many of its features were not new. *See* '295 patent, col.1, ll.27-28 ("Digital image cameras are currently available on the market, as known, for example, from . . . publication . . . ."); *id.*, col.1, ll. 31-34 ("So-called cellular telephones may be utilized for image transmission, as is known, for example, from the U.S. Pat. No. 5,260,989 . . . ."); *id.*, col.1, ll.35-38 ("An arrangement with a television camera and a telephone which provides for audio data and image data to be transmitted in common through a telephone line is known, for example, from the U.S. Pat. No. 5,063,587 . . . .").

counterparty to a transaction, obtaining start-of-day balances based on the parties' accounts, and adjusting the shadow records as transactions occurred. *See Alice*, 134 S.Ct. at 2359. Despite these complex steps, the Supreme Court, at step one of the § 101 analysis, distilled the claim there in issue to its essential purpose, finding that the claim was directed to the concept of "intermediated settlement." *Id.* at 2356. Similarly, the concept underlying the '295 patent is the longstanding abstract idea of taking, organizing, classifying, and storing photographs.[36] And this conclusion should not be obscured by the convoluted "patent-ese," language used in the '295 patent.

Plaintiff also contends that it is irrelevant that human beings could carry out the abstract idea underlying the '295 patent independently of computers. Although plaintiff is correct that this is not dispositive as to whether a patent is invalid under § 101, it is nonetheless a relevant consideration in determining whether a patent is directed to an abstract idea within the meaning of *Alice* because as the Federal Circuit teaches in *CyberSource*, "a method that can be performed by human thought alone is merely an abstract idea and is not patent-eligible under § 101." *CyberSource*, 654 F.3d at 1373. Thus, the fact that human beings could execute the concept underlying the '295 patent independently of computers is further evidence that the '295 patent is directed to an abstract idea.[37]

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[36] *See also Dietgoal*, 2014 WL 3582914, at *10 (noting that computerized system of meal planning allowing the user to change meals based on customized eating goals was directed to abstract idea because "humans have assuredly engaged at least in rudimentary meal-planning for millennia") (internal quotations marks and citations omitted).

[37] At oral argument, plaintiff's counsel expressed surprise that defendants' § 101 arguments were directed to the '295 patent as a whole, instead of just to Claim 17. This surprise is unwarranted; plaintiff was on ample notice that defendants targeted the '295 patent in its entirety under § 101 inasmuch as defendants' consolidated motion to dismiss contains a section titled "The System and Apparatus Claims are Likewise Unpatentable." *See* Defendants' Memorandum in Support of Their Consolidated Motion to Dismiss at 27. Thus, plaintiff's counsel overlooked the

In sum, the result of the first step of the § 101 analysis is that the '295 patent and its claims are clearly and convincingly directed to the abstract idea of taking, organizing, classifying, and storing photographs.

B.

The heart of the parties' § 101 dispute—and in large measure, the heart of every post-*Alice* § 101 dispute—is step two of the § 101 analysis, *i.e.*, whether the '295 patent contains an inventive concept such that, coupled with its claimed abstract idea, the '295 patent is eligible for patent protection under § 101. The parties' arguments on this issue focus primarily on Claim 17, and, as such, the § 101 analysis proceeds with respect to Claim 17 before examining whether the same result applies to the other '295 patent claims.

Plaintiff contends that Claim 17 contains an inventive concept because it utilizes an "intelligent" server which performs a variety of inventive functions. Defendants, meanwhile, argue that the only functions performed by the computer in Claim 17 are the routine and generic processing and storing capabilities of computers generally, and thus, defendants contend that Claim 17 does not contain an inventive concept.

Defendants are correct that Claim 17 does not include or add an inventive concept and is therefore directed to ineligible subject matter under § 101. This is so because:

- The computer in Claim 17 performs generic, routine activity common to computers generally, and an examination of the claim language reveals that the computer is no more "intelligent" than any other generic computer;
- Relevant Federal Circuit precedent makes clear that Claim 17 is directed to ineligible subject matter under § 101;

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fact that in their opening brief, defendants made clear that they were arguing that *all* of the claims in the '295 patent were invalid under § 101.

- Claim 17 does not pass the machine-or-transformation test because the only recited machine in the claim is a generic computer, which does not operate as a meaningful limitation;

- The limitations in Claim 17 are insufficient to eliminate the monopolization concerns presented by the '295 patent; and

- The ordered combination of steps in Claim 17 is not unique or unconventional in any way, and thus, Claim 17 is not patent-eligible as an ordered combination of steps.

Each of these points is addressed in turn.

The crux of the parties' dispute at the second step of the § 101 analysis is the role the computer plays in Claim 17, for it is clear that the "mere recitation of a generic computer cannot transform a patent-ineligible abstract idea into a patent-eligible invention." *Alice*, 134 S.Ct. at 2358. Defendants contend that Claim 17 does not contain an inventive concept because the limitations in Claim 17 are conventional computer functions and only provide a technological environment in which to apply the abstract idea underlying Claim 17. Defendants further argue that even as an ordered combination of steps, Claim 17 still consists of routine, well-known activity and lacks any inventive concept. In response, plaintiff contends that the server's ability to carry out automatic archiving based on classification information makes it an "intelligent server" instead of a generic computer. Plaintiff also maintains that because the server is able to analyze classification information, the server is not a generic general purpose computer. As is clear from an examination of the claim language itself, defendants are correct; the server in Claim 17 merely performs routine and conventional computer functions.

The method claimed in Claim 17 consists of:

> A method for recording and administering digital images, comprising the steps of:
> recording images using a digital pick up unit in a telephone unit,
> storing the images recorded by the digital pick up unit in a digital form as digital images,
> transmitting data including at least the digital images and classification information to a **server**, wherein said classification information is

> prescribable by a user of the telephone unit for allocation to the digital images,
> receiving the data by the **server**,
> extracting classification information which characterizes the digital images from the received data, and
> storing the digital images in the **server**, said step of storing taking into consideration the classification information.

Thus, by the terms of Claim 17, the server performs three functions: (1) it receives data—digital images and classification information—entered or inputted by the user; (2) it extracts from the received data the classification information which characterizes the digital images; and (3) it stores the digital images by taking the classification information into consideration. Defendants are correct that each of these activities is a routine, conventional activity that a generic computer can perform, and therefore, Claim 17 includes no inventive concept.

It is undisputed that the ability for a "computer [to] receive[] and send[] information over a network—with no further specification—is not even arguably inventive." *buySAFE, Inc. v. Google, Inc.*, 765 F.3d 1350, 1355 (Fed. Cir. 2014); *see also CyberSource*, 654 F.3d at 1372 ("[E]ven if some physical steps are required to obtain information . . . such data-gathering steps cannot alone confer patentability."). Indeed, it is difficult to conceive of a more conventional computer activity than the receipt of data. *Alice* confirms this result, as the computers in the patent at issue in *Alice* were used to exchange and transmit data over networks, yet ultimately, the claims at issue in *Alice* were invalidated for lacking an inventive concept under § 101. *See Alice*, 134 S.Ct. at 2357-58. Thus, the first claimed function of the server in Claim 17 hardly makes the server distinctively or inventively "intelligent," and as such, plaintiff cannot rely on the ability of the server to receive data as a basis for an inventive concept.

The second role the server plays in Claim 17—extracting the classification information—is similarly unavailing for plaintiff, for this too is no more than a routine, conventional computer

function and hardly serves to make the computer in Claim 17 inventive or "intelligent." The extraction of the classification information amounts to "manipulating data based on inputs from the user," which is yet another "conventional computer task[]." *Dietgoal*, 2014 WL 3582914, at *13. *Cyberfone* is instructive on this point. In *Cyberfone*, the Federal Circuit invalidated a patent that claimed a method for obtaining a single data stream, separating that data stream into individual components, and then sending those individual components to different destinations by taking into account information associated with the components. *See Cyberfone*, 558 F. App'x at 991. One of the steps in the claim at issue in *Cyberfone* involved analyzing and differentiating data based on classification information, a step strikingly similar to the "extraction" in Claim 17 of the '295 patent, as the extraction of the classification information simply consists of taking account of the classification information. *See id.* at 992. But these are all functions that are routinely performed by generic computers and, as the Federal Circuit held in *Cyberfone*, "the idea of collecting information in classified form, then separating and transmitting that information according to its classification, is an abstract idea that is not patent-eligible." *Id.*

This conclusion that the extraction step can be performed by a generic computer is confirmed by the '295 patent specification, which notes that:

> [T]he classification information may contain at least the time and/or time of day at which the image was recorded or at which the image data was transmitted to the server. As a result, the classification information may be extracted in a very simple way in the server . . . . By converting the time and date information into a form usable by the server, the received digital images may be stored in lists or directories in the server which are classified according to the time at which the image was acquired or the time of the transmission of the digital image . . . .

'295 patent, col.3, ll.52-63. Distilled to its essence, the classification information described in the '295 patent, which is entered or inputted by the user, may include the time at which the

pictures were taken or the time at which the pictures were transmitted to the server. The extraction step simply involves a computer receiving this classification information that applies to the photographs and using the classification information to organize the photographs. But such a step is not a meaningful limitation on the monopoly claimed in Claim 17 because, as another district court correctly noted concerning a similar computer function, "[h]umans engaged in this sort of indexing long before this patent, and the claim does not put forth an innovative and unconventional method of indexing." *Enfish*, 2014 WL 5661456, at *8. Here too, Claim 17's method of extracting classification information is not unique. Photographs are classified using certain metrics—e.g., time—and then organized in a directory accordingly, which does not require anything other than a generic computer, especially considering that human beings have created photo albums in essentially this way for more than a century. What is dressed up in the "patent-ese"-type convoluted language is nothing more than categorizing photographs based on when they were taken or on some other characteristic or basis.

The final role the server plays in Claim 17 is taking the classification information into account in storing the digital images. This computer function and capability is hardly groundbreaking; data storage is perhaps the textbook example of a conventional computer function. *See Alice*, 134 S.Ct. at 2360 ("Nearly every computer will include a . . . 'data storage unit' capable of performing the basic calculation, storage, and transmission functions . . . ."); *Loyalty Conversion Sys. Corp. v. American Airlines, Inc.*, No. 2:13-cv-655, 2014 WL 4364848, at *10 (E.D. Tex. Sept. 3, 2014) ("[S]imple forms of data recording, storage, and calculation . . . are conventional functions that can be performed by a generic computer without any novel programming or improvement in the operation of the computer itself."). Thus, there is no question that the ability of the server to use classification information to store digital images in

Claim 17 is a generic computer function. As a result, plaintiff's claim that the server is "intelligent" fails. A server performing this function is no more "intelligent" than any other generic server, and thus the operations performed by the server in Claim 17 are not inventive.

In sum, the server in Claim 17 performs the same three functions as the computer in *Wells Fargo*, and because the concept of "data collection, recognition, and storage is undisputedly well-known," plaintiff's assertion that the '295 patent involves an "intelligent" server fails. *Wells Fargo*, 2014 WL 7272219, at *3. Federal Circuit precedent is clear and convincing that the computer in the '295 patent is simply a generic computer performing conventional functions and, as such, the server cannot save the '295 patent from failing to pass muster under § 101. *See id.*

At oral argument, plaintiff's counsel presented an additional argument for labeling the server "intelligent," namely the ability of the server in the '295 patent to "talk" with the telephone unit. But *Wells Fargo* also forecloses this argument. In *Wells Fargo*, the Federal Circuit rejected the argument that the patent at issue was valid under § 101 because it involved "not only a computer but also an additional machine—a scanner." *Id.* Even though the scanner was used to extract data which was then transmitted to a computer, the Federal Circuit held that there was no inventive concept in the "use of a generic scanner *and* computer to perform well-understood, routine, and conventional activities commonly used in industry." *Id.* at *4 (emphasis added). Similarly here, although Claim 17 involves both a telephone unit and a server, both operate in a conventional and generic manner, and the fact that the computer can receive data from the telephone unit is insufficient to constitute an inventive concept.

Plaintiff also relies chiefly on the Federal Circuit's opinion in *DDR* to support its argument. Specifically, plaintiff argues that like the patent at issue in *DDR*, Claim 17 is

"necessarily rooted in computer technology" and is directed to "purely technological issues" instead of a "business challenge."[38] But plaintiff's reliance on *DDR* is misplaced, as the patent at issue in *DDR* is sharply distinguishable from Claim 17. To begin with, the Federal Circuit in *DDR* concluded that it was unlikely that the patent at issue was directed to an abstract idea as it did not recite a "fundamental economic or longstanding commercial practice" and, even though the patent claimed to solve a business challenge, it was a "challenge particular to the Internet." *DDR*, 773 F.3d at 1257. In contrast, Claim 17 does not attempt to solve a problem unique to computers or the Internet; the challenge of taking, classifying, organizing, and storing photographs is a longstanding practice that predates computers. Thus, plaintiff is incorrect that Claim 17 is directed to a "purely technological issue" and that *DDR* is controlling.

Moreover, the Federal Circuit's analysis under step two of the § 101 analysis offers an additional basis to distinguish *DDR* from the present case. In *DDR*, the Federal Circuit noted that because the claim there at issue purported to solve a problem that does not arise in the "brick and mortar" context, the claim contained a sufficiently inventive concept. *Id.* at 1258. As noted *supra*, the patent at issue in *DDR* was directed to a system and method which created a website with the same "look and feel" as a host website when a third-party advertisement was selected by a user. *Id.* at 1248-49. In other words, the Federal Circuit was moved by the fact that the patent at issue solved a problem unique to the Internet. The problem Claim 17 addresses—how to take, organize, classify, and store photographs—by contrast *does* arise in the "brick and mortar" context and is not unique to computers or the Internet.

Plaintiff further argues that Claim 17 is more inventive than the patents invalidated in *Digitech Image Techs., LLC v. Elecs. for Imaging Inc.*, 758 F.3d 1344 (Fed. Cir. 2014) and

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[38] *See* Plaintiff's Notice of Supplemental Authority at 3-4.

Cyberfone. Plaintiff contends that in *Digitech*, the patent claimed a "device profile" and a method "for generating a device profile" without *any* corresponding tangible or concrete components, while, by contrast, Claim 17 discloses numerous pieces of hardware. *See Digitech*, 758 F.3d at 1349, 1351. It is true that in *Digitech*, the Federal Circuit found the patent invalid chiefly because of a complete absence of concrete components related to the abstract idea. *See id.* at 1351 ("The . . . claim thus recites an ineligible abstract process of gathering and combining data that does not require input from a physical device."). But the fact that Claim 17 discloses more hardware than the patent invalidated in *Digitech* does not automatically confer patentability on the '295 patent. Indeed, plaintiff overlooks the fact that disclosure of structure and concrete components is insufficient when those disclosures are generic and do not operate as meaningful limitations on the boundaries of the patent. For example, plaintiff argues that in "stark contrast [to *Digitech*], here the '295 patent claims . . . a specific structure and devices, namely a telephone unit . . . and a server . . . ."[39] But because these components are merely performing generic, ordinary functions, they do not form the basis for an inventive concept and plaintiff's reliance on these components is unavailing. Thus, although Claim 17 may contain more hardware—a server and a telephone unit—than the patent invalidated in *Digitech*, it still lacks an inventive concept.

Plaintiff attempts to distinguish *Cyberfone* by arguing that the telephone in *Cyberfone* did not play an integral role in the patent at issue, whereas the server in Claim 17 is integral to the method claimed in Claim 17. This argument misses the mark; although the server in Claim 17 is indeed integral to Claim 17, it only performs generic functions which do not save Claim 17 from falling outside the ambit of § 101. Plaintiff also overlooks the fact that the patent invalidated in *Cyberfone*, like Claim 17, "separate[s] and transmit[s] . . . information according to its

[39] Plaintiff's Opposition to Defendants' Motion to Dismiss at 27.

classification." *Cyberfone*, 558 F. App'x at 992. In essence, plaintiff's arguments all stem from plaintiff's belief that the server in Claim 17 is inventive and "intelligent." Yet plaintiff's contention that the described server is both novel and "intelligent" is simply a semantics game that hides the plain truth: the server in Claim 17 is a generic computer that is no more novel or "intelligent" than any other generic server or computer.

For similar reasons, Claim 17 also fails the machine-or-transformation test. It is first worth noting that the role of the machine-or-transformation analysis after *Alice* is, at best, unclear. The Supreme Court rejected the machine-or-transformation test as the "sole test" for patentability in *Bilski*, but reiterated that it remains an "important and useful clue." *Bilski*, 561 U.S. at 603. The Supreme Court did not address the relevance of the machine-or-transformation test in *Alice*, but in the wake of *Alice*, both the Federal Circuit and a number of district courts have examined patents using the machine-or-transformation test as one tool to aid in the § 101 analysis.[40] This result is appropriate given that the Supreme Court has said that the machine-or-transformation test is a useful clue in determining patent eligibility under § 101 inasmuch as whether a claim is tied to a meaningful machine or transformation may indicate whether a claim contains a sufficiently inventive concept under *Mayo* and *Alice*. Importantly, not all machines

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[40] *See, e.g.*, *Ultramercial*, 772 F.3d at 716 ("While the Supreme Court has held that the machine-or-transformation test is not the sole test governing § 101 analyses . . . that test can provide a 'useful clue' in the second step of the *Alice* framework."); *Digitech*, 758 F.3d at 1351 (same); *Helios Software, LLC v. SpectorSoft Corp.*, No. 12-081, 2014 WL 4796111, at *17 (D. Del. Sept. 18, 2014) ("[E]ven if the asserted claims were drawn to abstract ideas, the claims would remain patentable because they satisfy the machine-or-transformation test."); *CMG Fin. Serv's, Inc. v. Pac. Trust Bank, F.S.B.*, No. CV11-10344, 2014 WL 4922349, at *8 (C.D. Cal. Aug. 29, 2014) ("[O]ne method of determining patent eligibility under § 101 is known as the machine-or-transformation test."). The decision in *Helios* suggests that the ability to meet the machine-or-transformation test confers patentability under § 101, but the Supreme Court in *Bilski* was clear that the machine-or-transformation test is simply one consideration in the § 101 analysis and not determinative of whether a patent is valid under § 101.

enable a patent to pass the machine-or-transformation test; in order for "a machine to impose a meaningful limit . . . it must play a significant part in permitting the claimed method to be performed." *Cyberfone*, 558 F. App'x at 992. Thus, "simply implementing an abstract concept on a computer, without meaningful limitations to that concept, does not transform a patent-ineligible claim into a patent-eligible one." *Id.* (internal quotation marks and citations omitted).

Plaintiff contends that Claim 17 passes the machine-or-transformation test because it is tied to a "particular intelligent server."[41] Yet, plaintiff's argument fails to persuade, because, as noted, the so-called "intelligent server" is simply a generic computer in disguise because the three functions the server performs—receiving the data, extracting classification information, and then storing digital images by considering the classification information—can all be performed by a generic computer. Indeed, plaintiff's argument, if accepted, would contradict the express holding in *Alice* that "the prohibition against patenting abstract ideas cannot be circumvented by attempting to limit the use of [the idea] to a particular technological environment." *Alice*, 134 S.Ct. at 2358.[42] It necessarily follows that tethering an abstract idea to a generic computer, as here, is insufficient to pass the machine-or-transformation test. *See id.* ("Given the ubiquity of computers . . . wholly generic computer implementation is not generally the sort of additional feature that provides any practical assurance that the process is more than a drafting effort designed to monopolize the [abstract idea] itself.") (internal quotation marks and citations omitted).

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[41] Plaintiff's Opposition to Defendants' Motion to Dismiss at 32. Plaintiff's argument is confined to the machine prong of the machine-or-transformation test, and plaintiff does not argue that Claim 17 meets the transformation prong of the test.

[42] *See also Lumen View Tech. LLC v. Findthebest.com, Inc.*, 984 F. Supp. 2d 189, 201 (S.D.N.Y. 2013) ("[T]he use of a computer to perform a process humans can perform independently is insufficient to fulfill the machine prong of the 'machine or transformation' test.").

Plaintiff also argues that Claim 17 contains an inventive concept based on the claim's limitations, including (i) the server, (ii) the use of a telephone unit, and (iii) the evaluation of classification information in storing digital images, and that these limitations do not constitute a monopoly on a longstanding practice. This argument also fails.

First, the asserted limitations in Claim 17 related to the server do not make Claim 17 patentable because the functions of the server in Claim 17, as noted, can be performed by any generic computer. Thus, accepting plaintiff's argument would allow plaintiff dominion over a broad swath of technology related to automating the process of taking, organizing, classifying, and storing photographs. Nor does the use of a telephone unit place a meaningful boundary on Claim 17 because as the '295 patent specification notes, "[s]o called cellular telephones may be utilized for image transmission, as is *known*." '295 patent, col.1, ll.31-34 (emphasis added). As such, the telephone unit limitation is another example of generic hardware which does not save Claim 17 because it is not inventive.[43] The entry or use of classification information similarly is neither an inventive concept nor a meaningful limitation on Claim 17. The use of classification information to organize photographs is a longstanding, well-known and unpatentable practice.

Nor is the "ordered combination" of steps in Claim 17 patentable because like the patent at issue in *Alice*, the steps of Claim 17 add "nothing . . . that is not already present when the steps are considered separately." *Alice*, 134 S.Ct. at 2359 (internal quotation marks and citations omitted). Plaintiff does not argue otherwise; plaintiff's arguments are devoted to what it believes are meaningful limitations in the form of the server and the telephone unit, respectively, but

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[43] *See Every Penny Counts, Inc. v. Wells Fargo Bank, N.A.*, No. 8:11-cv-2826, 2014 WL 4540319, at *5 (M.D. Fla. Sept. 11, 2014) ("[N]one of the hardware recited by the system claims offers a meaningful limitation beyond generally linking the use of the method to a particular technological environment . . . .").

plaintiff does not ever contend that the order of the steps in Claim 17 or in any other claim in the '295 patent is unique in some way. Indeed, the outcome is no different when Claim 17 is evaluated as an "ordered combination" because the claim recites nothing more than the concept of taking, organizing, classifying, and storing photographs as performed by a generic computer. *See Dietgoal*, 2014 WL 3582914, at *14 (claims of patent at issue were invalid because they were directed to "nothing more than the concept of [meal planning] as performed by a generic computer").

Although the Federal Circuit has held that considering every claim of a patent is unnecessary in the § 101 inquiry, it is still worth examining briefly dependent Claims 18-24. Dependent claims 18-20 limit Claim 17 to the incorporation and processing of "audio data" and "speech." But the Supreme Court has held that limiting "an abstract idea to one field of use . . . [does] not make [a] concept patentable." *Bilski*, 561 U.S. at 612. Claims 21-24 similarly recite examples of the type of information that can be entered by a user into the system, including time information characterizing the digital images, telephone numbers, digital character information, and the location information with respect to the digital images. Thus, all of these specific applications of Claim 17 still rely on Claim 17's generic recitation of a computer and a telephone unit, and none of these limitations provide an innovative use of a computer to confer patentability on any of the dependent claims. Therefore, dependent Claims 18-24 are similarly invalid under § 101.

Plaintiff's counsel, at oral argument on January 30, contended that the result reached with respect to Claim 17 is inapplicable to Claims 1 and 25 because Claim 17 is not representative of the other two independent claims. Specifically, plaintiff's counsel focused on the "means for

allocating" limitation in Claims 1 and 25 as making those claims "substantively different" from Claim 17.[44] This argument also fails to persuade.

First, plaintiff's argument takes too narrow a view of what a "representative" claim is. The Federal Circuit has stated that when a "system claim and method claim contain only 'minor differences in technology [but] require performance of the same basic process' . . . they should rise or fall together." *Accenture Global Servs., GmbH v. Guideware Software, Inc.*, 728 F.3d 1336, 1344 (Fed. Cir. 2013). Thus, in *Accenture*, the Federal Circuit held that the presence of "four additional limitations" did not "meaningfully distinguish" the system claim from the method claim. *Id.* And the Federal Circuit reached a similar conclusion in *Wells Fargo*, noting that a "representative" claim is one that is "substantially similar and linked to the same abstract idea." *Wells Fargo*, 2014 WL 7272219, at *4.

Here, the '295 patent specification describes the invention as relating to "an apparatus for recording of a digital image, communicating the digital image from the recording device to a storage device, and to administering the digital image in the storage device." '295 patent, col.1, ll.7-9. In discussing the method claim, the specification notes that the invention relates to a "method for recording, communicating and administering the digital image." *Id.*, col.1, ll.11-12. By the patent's own terms, then, the apparatus and method claims require "performance of the same basic process." *Accenture*, 728 F.3d at 1344. Indeed, Claim 1, Claim 17, and Claim 25 are all directed to the same process of taking, organizing, classifying, and storing photographs, and are therefore "substantially similar and linked to the same abstract idea." *Wells Fargo*, 2014 WL 7272219, at *4. And the fact that Claims 1 and 25 contain the "means for allocating" limitation

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[44] *See In re: TLI Communications LLC Patent Litigation*, No. 1:14md2534 (E.D. Va. Jan. 30, 2015) at 97 (Reporter's Transcript, January 30, 2015 Motions Hearing).

does not change this conclusion, as the "means for allocating" limitation is part of the same underlying process described in Claims 1, 17, and 25. Thus, plaintiff is incorrect; based on Federal Circuit precedent, Claims 1, 17, and 25 recite "the [same] abstract idea implemented on a generic computer" and therefore, Claim 17 is representative of the other two independent claims in the '295 patent. *Alice*, 134 S.Ct. at 2360.

Second, the "means for allocating" limitation in Claims 1 and 25 does not constitute an inventive concept. Although plaintiff is correct that "allocating" data is not a generic computer function in the same manner as receiving, transmitting, or storing data, that does not automatically confer patentability upon Claims 1 and 25. Indeed, the Supreme Court has never stated that all non-generic components automatically constitute inventive concepts. In this case, the "means for allocating" limitation is insufficient to qualify as an inventive concept because the '295 patent is silent as to how the "means for allocating" is carried out. The only discussion in the '295 patent specification of the "means for allocating" is a disclosure of an abstract black box, "MZ." As noted *infra*, however, the '295 patent never describes or discloses how "MZ" operates or how "MZ" allocates the classification information. In this respect, the Federal Circuit's decision in *Dealertrack, Inc. v. Huber*, 674 F.3d 1315, 1333 (Fed. Cir. 2012) is instructive. There, the Federal Circuit invalidated a patent under § 101 where that patent claimed a computer aided method of managing a credit application. *See id.* at 1333-34. In reaching this conclusion, the Federal Circuit specifically rejected the argument that the phrase "computer aided" qualified as an inventive concept, noting in this respect that:

> Although the district court construed 'computer aided' as a limitation, the '427 patent does not specify how the computer hardware and database are specially programmed to perform the steps claimed in the patent . . . . The claims are silent as to how a computer aids the method, the extent to which a computer aids the method, or the significance of a computer to the performance of the method. The

> undefined phrase 'computer aided' is no less abstract than the idea of a clearinghouse itself.

Id. at 1333 (internal quotation marks and citations omitted). Here, too, "MZ" is an undefined black box and the '295 patent is silent as to how "MZ" operates to allocate classification information. In that respect, the "means for allocating" limitation is another example of an "undefined phrase" which is "no less abstract" than the idea of taking, organizing, classifying, and storing photographs. *Id.*

Moreover, in its response brief, plaintiff explicitly acknowledges that allocation of classification information is "nothing more complex than simply associating classification information with digital images" and that the "patent does *not* purport to claim a novel method for the trivial task of ***how*** to associate one piece of digital information with another piece of digital information. Those methods were well-known at the time."[45] In other words, plaintiff has expressly admitted that the "means for allocating" limitation was both well-known and not complex. Plaintiff cannot now plausibly claim this limitation as the basis for an inventive concept.

Thus, Claims 1 and 25 of the '295 patent are not eligible for protection under § 101 merely because they describe an additional component—"MZ"—that is a complete abstraction; a contrary holding would allow patent applicants to circumvent *Alice* by tacking on undescribed, undefined components to otherwise patent-ineligible material. Such undefined abstract components do not supply the inventive concept required under § 101.[46]

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[45] Plaintiff's Opposition to Defendants' Motion to Dismiss at 5 (emphasis added). *See also* Plaintiff's Responsive Claim Construction Brief at 19 ("Anyone of ordinary skill in the art knows how to classify and allocate data with other data . . . .").

In sum, it is clear and convincing that Claim 17 and the '295 patent generally are directed to an abstract idea which contains no inventive concept and hence, fall outside § 101.

C.

A final issue—whether the clear and convincing evidence standard is applicable to § 101 challenges—merits mention especially because the parties dispute this issue. Plaintiff contends that well-settled law requires application of the clear and convincing standard to § 101 determinations, whereas defendants contend that the clear and convincing evidentiary standard is inapplicable to § 101 determinations as such determinations are questions of law. This dispute stems in large measure from Justice Breyer's concurrence in *Microsoft v. i4i Ltd. P'Ship*, 131 S.Ct. 2238 (2011). There, Justice Breyer noted that the clear and convincing evidence standard "applies to questions of fact and not to questions of law" and "[w]here the ultimate question of patent validity turns on the correct answer to legal questions—what these subsidiary legal standards mean or how they apply to the facts as given—*today's strict standard of proof has no application.*" *Id.* at 2253 (emphasis added). Interestingly, no other opinion in *Microsoft* addresses this issue, and neither the Supreme Court nor the Federal Circuit has revisited the standard of proof applicable to § 101 challenges since *Microsoft*.[47] As a result of this deafening

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[46] Plaintiff's counsel, at oral argument, also contended that Claim 17 was not a representative claim due to the presence of additional structures in the other '295 patent claims such as an "analysis unit" and a "control unit." As defendants correctly point out, however, these are generic structures performing conventional computer functions and do not meaningfully distinguish the other '295 patent claims from Claim 17. Accordingly, the conclusion reached here is applicable to all of the '295 patent claims.

[47] The applicability of the clear and convincing evidence standard to § 101 challenges has been mentioned twice in Federal Circuit opinions since Justice Breyer's concurrence in *Microsoft*. In *CLS Bank Int'l. v. Alice Corp. Pty. Ltd.*, 717 F.3d 1269 (Fed. Cir. 2013), *aff'd*, 134 S.Ct. 2347 (2014), Judge Rader, in the Federal Circuit's consideration of the *Alice* appeal, authored an opinion, concurring in part and dissenting in part, embracing the application of the clear and convincing evidence standard to § 101 challenges. *See id.* at 1304-1305. The Supreme Court

silence, district courts, not surprisingly, are split over the standard of proof applicable to § 101 challenges.[48]

At the end of the day, the result reached here is not altered or affected regardless of whether the parties' dispute on the burden of proof applicable to § 101 challenges is resolved. The result reached here does not depend on resolution of any evidentiary factual dispute; rather, the result reached here is based on the patent itself, the facts stated in the patent, and governing authority. Thus, whether or not the clear and convincing evidence standard applies, the only plausible reading of the '295 patent is that it is directed to patent-ineligible subject matter and is

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did not adopt this view in *Alice*, however, and Judge Rader's analysis omits any discussion of Justice Breyer's concurrence in *Microsoft*. And in *Ultramercial, Inc. v. Hulu, LLC*, 722 F.3d 1335, 1339 (Fed. Cir. 2013), the Federal Circuit noted that the clear and convincing evidence standard applied to § 101 challenges. But that opinion has been vacated, and the superseding new opinion in the case is silent as to whether the clear and convincing evidence standard applies to § 101 challenges. *See Ultramercial*, 772 F.3d at 709.

[48] *See, e.g., Genetic Techs. Ltd. v. Bristol-Myers Squibb Co.*, No. 12-396-LPS, 2014 WL 5507637, at *4 (D. Del. Oct. 30, 2014) ("[T]o grant dismissal of a patent infringement suit at the pleading stage for lack of patentable subject matter, the *only* plausible reading of the patent must be that there is clear and convincing evidence of ineligibility." (internal quotation marks and citations omitted)); *Data Distrib. Techs., LLC v. BRER Affiliates, Inc.*, No. 12-4878, 2014 WL 4162765, at *5 (D.N.J. Aug. 19, 2014). In contrast, other district courts have embraced Justice Breyer's concurrence in *Microsoft* as articulating the standard of proof applicable to § 101 challenges. *See Calif. Institute of Tech. v. Hughes Commc'ns., Inc.*, No. 2:13-cv-07245, 2014 WL 5661290, at *2 n.6 (C.D. Cal. Nov. 3, 2014) (arguing that "this Court believes that the clear and convincing standard does not apply to § 101 analysis, because § 101 eligibility is a question of law" and "[t]ellingly, the Supreme Court has never mentioned the clear and convincing standard in its post-*i4i* § 101 decisions"); *Genetic Techs. Ltd. v. Lab. Corp. of AmericaHoldings*, No. 12-1736-LPS-CJB, 2014 WL 4379587, at *5 n. 5 (D. Del. Sept. 3, 2014). One recent district court decision has succinctly summarized the split, acknowledging the "persuasiveness of such reasoning" [of not applying the clear and convincing evidence standard to § 101 determinations] but noting that, in the end, there is no "authority indicating that the presumption of validity no longer applies to challenges to a patent's validity under section 101." *CertusView Techs., LLC v. S&N Locating Servs., LLC*, No. 2:13cv346, 2015 WL 269427, at *14 n.6 (E.D. Va. Jan. 21, 2015).

therefore invalid under § 101. In any event, careful examination of the '295 patent in light of *Alice*, *Mayo*, and other pertinent authority points clearly and convincingly to the conclusion that the '295 patent is invalid under § 101.

IV.

In addition to arguing that the '295 patent is directed to ineligible subject matter under § 101, defendants further argue that a number of the claims in the '295 patent are fatally indefinite pursuant to 35 U.S.C. § 112(f). Specifically, defendants contend that Claims 1 and 25 in the '295 patent use the term "means" and are therefore means-plus-function claims that are fatally indefinite because the '295 patent fails to disclose corresponding structure or an algorithm for performing the claimed function.

Section 112(f) of the Patent Act allows an applicant to state a claim in the form of means for performing a specific function without reciting in the claim the structure corresponding to that function.[49] In patent law, however, as in life, there are no free passes and thus, when an applicant invokes § 112(f) there is a "statutory quid pro quo." *Kemco Sales, Inc. v. Control Papers Co., Inc.*, 208 F.3d 1352, 1360 (Fed. Cir. 2000). Accordingly, "[i]n exchange for using [means-plus-function] claiming, the patent specification must disclose with sufficient particularity the corresponding structure for performing the claimed function and clearly link that structure to the function." *Triton Tech of Tex., LLC v. Nintendo of America, Inc.*, 753 F.3d 1375, 1378 (Fed. Cir. 2014). If the written description "fails to set forth an adequate disclosure of a structure corresponding to the means in a means-plus-function claim, then the claim is indefinite,

[49] 35 U.S.C. § 112(f) states: "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." This provision was first codified as § 112 ¶ 6 but has since been recodified as § 112(f).

and therefore invalid." *Atmel Corp. v. Info. Storage Devices, Inc.*, 198 F.3d 1374, 1383 (Fed. Cir. 1999) (internal quotation marks and citations omitted). Indefiniteness, "as a subset of claim construction, is a question of law . . . ." *In re Packard*, 751 F.3d 1307, 1311 (Fed. Cir. 2014). And importantly, a challenge "to a claim containing a means-plus-function limitation as lacking structural support requires a finding, by clear and convincing evidence, that the specification lacks disclosure of structure sufficient to be understood by one skilled in the art as being adequate to perform the recited function." *Chicago Bd. Options Exch. Inc. v. Int'l Sec. Exch., LLC*, 748 F.3d 1134, 1141 (Fed. Cir. 2014).

Analysis of means-plus-function terms proceeds in two steps. First, a determination is made "if the claim limitation is drafted in the means-plus-function format." *Robert Bosch, LLC v. Snap-On Inc.*, 769 F.3d 1094, 1097 (Fed. Cir. 2014). In this respect, the use of the term "means" triggers a "rebuttable presumption that § 112 [(f)] governs the construction of the claim term." *Id.* By contrast, where the claim language does not recite the term "means," the presumption is that the limitation "does not invoke § 112 [(f)]." *Id.* The use of the word "means" is central to the analysis, and thus, the "presumption flowing from the absence of the term 'means' is a strong one that is not readily overcome." *Inventio AG v. ThyssenKrupp Elevator Americas Corp.*, 649 F.3d 1350, 1356 (Fed. Cir. 2011).

If it is determined that the claim term is a means-plus-function term, then the second step in the analysis is to determine if there is any "corresponding structure, material, or acts described in the specification to which the claim term will be limited." *Bosch*, 769 F.3d at 1097 (internal quotation marks and citations omitted). The specification of a patent is a valid source of structure for claims written in the means-plus-function format, as a "structure disclosed in the specification qualifies as a 'corresponding structure' if the specification or the prosecution

history 'clearly links or associates that structure to the function recited in the claim.'" *Noah Sys., Inc. v. Intuit Inc.*, 675 F.3d 1302, 1311 (Fed. Cir. 2012) (internal citations omitted).

Importantly, and particularly pertinent to this case, Federal Circuit precedent is clear that computer implemented means-plus-function terms are subject to additional structural requirements under § 112(f). Thus, the Federal Circuit has held that in cases involving computer-implemented inventions, the structure disclosed must be "more than simply a general purpose computer or microprocessor." *NetMoneyIN, Inc. v. VeriSign, Inc.*, 545 F.3d 1359, 1367 (Fed. Cir. 2008) (internal quotation marks and citations omitted). Therefore, "[c]omputer-implemented means-plus-function claims are indefinite unless the specification discloses an algorithm to perform the function associated with the limitation." *Noah Sys.*, 675 F.3d at 1319; *see also Augme Techs., Inc. v. Yahoo! Inc.*, 755 F.3d 1326, 1337 (Fed. Cir. 2014) ("[T]he specification must disclose an algorithm for performing the claimed function."). Importantly, the Federal Circuit has crafted a narrow exception to the requirement that an algorithm must be disclosed for a computer-implemented means-plus-function term. This exception operates to eliminate a requirement for an algorithm where a computer-implemented means "can be achieved by any general purpose computer without special programming." *Ergo Licensing, LLC v. CareFusion 303 Inc.*, 673 F.3d 1361, 1364-65 (Fed. Cir. 2012) (citing *In re Katz*, 639 F.3d 1303, 1316 (Fed. Cir. 2011)). Thus, for example, disclosure of a general purpose computer will suffice as structure corresponding to the generic functions of "processing," "receiving," and "storing." *Id.* at 1365. But if "special programming is required for a general-purpose computer to perform the corresponding claimed function, then the default rule requiring disclosure of an algorithm applies." *Id.*[50]

The specification can express the algorithm "in any understandable terms, including as a mathematical formula, in prose, or as a flow chart, or in any other manner that provides sufficient structure." *Noah Sys.*, 675 F.3d at 1312. But simply disclosing a black box that performs the recited function "is not a sufficient explanation of the algorithm required to render the means-plus-function term definite." *Augme*, 755 F.3d at 1338. And expert testimony is not an adequate substitute for the requirement "that the specification itself adequately disclose the corresponding structure." *Noah Sys.*, 675 F.3d at 1312. Such testimony can, however, be relevant to determine how one of ordinary skill in the art would have understood a claim as disclosing structure corresponding to the claimed function. *See Creative Integrated Sys., Inc. v. Nintendo of America, Inc.*, 526 F. App'x 927, 936 (Fed. Cir. 2013).

These principles govern the interpretation of the means-plus-function terms in the '295 patent. Claim 1 is directed to a telephone unit, which includes: "**means** for allocating classification information prescribed by a user of said at least one telephone unit to characterize digital images obtained by said digital pick up unit . . . ." Similarly, Claim 25 consists, in part, of "**means** to receive audio information from the user as the classification information and to allocate the classification information to the corresponding digital still image data." Given the use of the word "means" in both claims, both parties agree that these terms are means-plus-function terms. And a finding that Claims 1 and 25 are invalid under § 112(f) would, by incorporation, invalidate dependent Claims 2-16 and 26. *See Blackboard, Inc. v. Desire2Learn,*

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[50] This exception is inapplicable to this case because "allocating" is a not a fundamental computer function in the same manner as "storing," "receiving," and "processing." Indeed, at oral argument on February 3, 2015, plaintiff's counsel conceded that *Katz* was inapplicable to the "means for allocating" limitation. *See In re: TLI Communications LLC Patent Litigation*, No. 1:14md2534 (E.D. Va. Feb. 3, 2015) at 21-22 (Transcript of Telephone Conference) ("[W]e all agree that . . . the means for allocating required with respect to Claim 1 is not a general purpose computer.").

Inc., 574 F.3d 1371, 1382 (Fed. Cir. 2009) (affirming district court's decision that "the specification contained insufficient structure to support one of the means-plus-function limitations found in claim 1 and, by incorporation, in dependent claims 2-35").

Defendants argue that the only disclosure corresponding to the means for allocating classification information in both Claims 1 and 25 is the "classification information allocator," labeled as "MZ" in Figure 2 of the '295 patent specification. *See* '295 patent, Fig. 2. Defendants contend that this disclosure is a black box disclosure that does not adequately describe how the classification information is allocated, and that apart from the box labeled "MZ," the specification neither provides nor describes any algorithm or explanation as to how the classification information is allocated. Plaintiff, in response, argues that the '295 patent specification contains numerous examples of hardware which a person of ordinary skill in the art would understand as structure for allocating classification information and that the specification does disclose an algorithm as to how classification information is allocated. A review of relevant case law, as well as both parties' expert declarations, points clearly and convincingly to the conclusion that defendants are correct; Claims 1 and 25 are invalid as fatally indefinite because there is no discernible structure or algorithm in the specification corresponding to or describing the means for allocating classification information claimed in Claims 1 and 25 of the '295 patent.

Specifically, defendants are correct that the '295 patent's disclosure of a "classification information allocator," "MZ," is no more than an abstract black box that putatively performs the function of allocating classification information. Nor does the specification, apart from the "MZ" box, provide an algorithm in any form to describe how "MZ" accomplishes the allocation function. Instead, the specification merely notes that "MZ" is a "means . . . for allocating the classification information . . . which [is] prescribed by the user to the digital images and thus

characterizing the digital images."[51] At most, this statement describes a connection between user input and the classification information allocated to digital images, but this statement does not disclose or describe by an algorithm or structure in any form how that information is allocated to digital images. And the specification's statement that the allocation means "MZ" may be integrated into the keypad of the telephone unit is similarly unavailing to constitute structure corresponding to the function of allocating classification information, as this description is again relevant to how classification information is entered by the user, but does not explain how the information itself is allocated following entry of the classification information. Therefore, defendants are correct that the '295 patent's disclosure of "MZ" simply describes an abstract black box that does not disclose how the claimed function is carried out. As such, Claims 1 and 25 are fatally indefinite.

Federal Circuit authority confirms this result. In *ePlus, Inc. v. Lawson Software, Inc.*, 700 F.3d 509, 518 (Fed. Cir. 2012), the Federal Circuit invalidated a patent under § 112(f) which disclosed a "purchase orders" step because this disclosure was "just a black box that represents the purchase-order generation *function* without any mention of a corresponding structure." *Id.* Ultimately, because there was "no instruction for using a particular piece of hardware, employing a specific source code, or following a particular algorithm," the claim was fatally indefinite. *Id.* at 519.

The Federal Circuit reached a similar result in *Blackboard*, where the patent at issue claimed a server computer comprised of:

> means for storing a plurality of data files associated with a course, means for assigning a level of access to and control of each data file based on a user of the system's

[51] '295 patent, col.6, ll.42-45.

> predetermined role in a course; means for determining whether access to a data file associated with the course is authorized . . . .

Blackboard, 574 F.3d at 1382. The Federal Circuit rejected the argument that the disclosure of an "access control manager" was a description of corresponding structure because: "what the patent calls the 'access control manager' is simply an abstraction that describes the function of controlling access to course materials, *which is performed by some undefined component of the system*." *Id.* at 1383 (emphasis added). In reaching its decision in *Blackboard*, the Federal Circuit also noted that whether one of ordinary skill in the art could have devised a means to carry out the recited function "conflates the definiteness requirement of section 112, paragraphs 2 and 6, and the enablement requirement of section 112, paragraph 1." *Id.* at 1385; *see also ePlus*, 700 F.3d at 519 ("The indefiniteness inquiry is concerned with whether the bounds of the invention are sufficiently demarcated, not with whether one of ordinary skill in the art may find a way to practice the invention.").[52] Thus, Federal Circuit precedent is clear that the corresponding structure accompanying a means-plus-function claim must describe *how* a particular function is carried out, instead of merely disclosing an abstract structure without further explanation.[53] Because the '295 patent does not describe any algorithm or structure in

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[52] Normally, disclosure of some form of an algorithm must be judged in light of what one of ordinary skill in the art would understand the disclosure to impart, but this inquiry is inapplicable when *no* structure is disclosed in the patent's specification. Importantly, "[t]his conclusion is not inconsistent with the fact that the knowledge of one skilled in the particular art may be used to understand what structure(s) the specification discloses . . . because such resources may *only* be employed in relation to structure that is disclosed in the specification." *Atmel*, 198 F.3d at 1382 (emphasis added). In other words, when there is a complete absence of structure in a patent, the understanding of one of ordinary skill in the art is irrelevant because the question "is not whether the algorithm that was disclosed was described with sufficient specificity, but whether an algorithm was disclosed at all." *Noah Sys.*, 675 F.3d at 1313.

[53] *See also Augme*, 755 F.3d at 1338 ("[The patent] discloses inputs to and outputs from the code assembler instructions, but does not include any algorithm for how the second code module is

any form accompanying or explaining the claimed function, Claims 1 and 25 are fatally indefinite.

Plaintiff offers a number of arguments in response, none of which are persuasive. First, plaintiff argues that the specification teaches a person of ordinary skill in the art that the entry of classification information data is necessarily associated with digital images. Although this may be true, it will not save claims, as here, that disclose only a black box, "MZ," to perform the function of allocation. Moreover, the mere fact that classification information is associated with digital images is insufficient to constitute structure; it is akin to describing the "inputs" and "outputs" from the system without disclosing structure for carrying out the claimed function. *See Augme*, 755 F.3d at 1338 (claim was indefinite because it disclosed "inputs to and outputs from the code assembler instructions, but [did] not include any algorithm . . . ."). For similar reasons, the specification's disclosures of a data processor for processing the digital images and a telephone unit for storing the images are inadequate because these structures are not tethered to the function of allocating classification information. *See, e.g.*, *Ergo*, 673 F.3d at 1364 ("The specification discloses that the control device has memory, but memory is not structure capable of performing the function [at issue]. While in some circumstances generic structural disclosures may be sufficient, that is not the case here.").

Plaintiff further contends that "MZ" is not a black box because the specification states that "MZ" may be integrated into the keypad. But this contention misses the mark. Although it is true that the patent specification discloses that a user can use the "MZ" box to enter data

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actually assembled . . . . Simply disclosing a black box that performs the recited function is not a sufficient explanation of the algorithm required to render the means-plus-function term definite.").

through the keypad, "MZ" is still a black box with respect to how "MZ" operates to allocate classification information. The keypad, in other words, is a structure for entering data comprised in part of classification information, but is not a structure for the subsequent function of allocating that classification information. Plaintiff then argues that the specification's disclosure of an ASCII generator is structure one of ordinary skill in the art would understand as allocating classification information to the digital image. This argument suffers from two fatal flaws. First, plaintiff's assertion conflates the enablement and definiteness inquiries. Indeed, although in normal circumstances the "sufficiency of the disclosure of algorithmic structure must be judged in light of what one of ordinary skill in the art would understand the disclosure to impart," that principle has no application where, as here, "the specification discloses no algorithm." *Noah Sys.*, 675 F.3d at 1313. Second, plaintiff's contention again focuses on what the user enters or inputs into the system via the ASCII generator, instead of how the generator or "MZ" allocates the classification information, which is the claimed function.

For similar reasons, plaintiff's argument with respect to "header fields" must be rejected. Plaintiff contends that because the '295 patent teaches that information can be included as a header field, and that anyone of "ordinary skill in the art knows how to classify and allocate data with other data," an algorithm is disclosed via the header field as this is "Computer Science 101."[54] This argument suffers from the same problems as the ASCII generator argument. Again, the '295 patent simply teaches that information can be transmitted to the server "as a header field provided with the transmitted image," but does not serve to explain how the information is first allocated to the digital images. '295 patent, col.7, ll.17-18. Plaintiff's assertion that the allocation process is "Computer Science 101" is immaterial, because again, if no algorithm or

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[54] Plaintiff's Responsive Claim Construction Brief at 19.

structure is disclosed in the patent to explain the allocation function, what one of ordinary skill in the art would understand is insufficient to save the claim. *See Noah Sys.*, 675 F.3d at 1313 ("[T]he question is not whether the algorithm that was disclosed was described with sufficient specificity, but whether an algorithm was disclosed at all."). Because the header field still does not constitute an algorithm which explains how the classification information is allocated, plaintiff's argument on this point must be rejected.

Finally, plaintiff attempts to save Claims 1 and 25 by pointing to what it believes is an algorithm: "One of ordinary skill in the art reading the specification readily understands the algorithm for allocating classification information is causing the classification information data to be associated with the digital images, *e.g.*, to be transmitted with each other in a data stream."[55] Once again, this statement is an insufficient description of structure, because it simply describes the output of the system, namely that the classification information is associated with digital images after being allocated. Moreover, as defendants correctly point out, Claim 1 contains a separate transmission system for transmitting the digital images and classification information to the server, which suggests that this system is responsible solely for transmitting the data, and plays no role in the allocation process.[56]

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[55] Plaintiff's Opposition to Defendants' Motion to Dismiss at 7.

[56] Plaintiff also cites an excerpt from an opinion authored by one of defendants' experts—Dr. Rhyne—in a different case involving a different patent. Plaintiff contends that Dr. Rhyne "relied heavily on the '295 patent and touted its teachings as key prior art" and that Dr. Rhyne "recognized [that] the '295 patent . . . disclosed structure for allocating classification information to the digital images." Plaintiff's Opposition to Defendants' Motion to Dismiss at 5-6. This excerpt is irrelevant to the § 112(f) analysis. As defendants point out, Dr. Rhyne cited the '295 patent as prior art for an unrelated patent in an unrelated case. More importantly, Dr. Rhyne did not attempt to construe the claims of the '295 patent or determine whether the '295 patent disclosed structure specifically for the "means for allocating" limitation.

Indeed, the PTAB reached a similar conclusion as it found that the '295 patent failed to describe how "that [classification] information [was] subsequently being allocated to the digital image" and thus, the specification did not "describe an algorithm by which the classification information [is] allocated."[57] Despite plaintiff's assertions to the contrary, this case bears a striking similarity to both *Blackboard* and *ePlus* in that the only disclosed structure which purports to allocate classification information is an abstract black box.

An examination of the parties' respective expert reports confirms that Claims 1 and 25 are invalid as indefinite. Plaintiff's expert report largely parrots the arguments plaintiff made in its response brief. This expert report merely notes conclusorily that "the specification discloses structure for allocating classification information to the digital image when a user inputs classification information through the various inputs of the phone" and that making an association "between classification information data and digital image data in view of the specification . . . would have been straightforward for one of ordinary skill in the art."[58] Neither statement describes an algorithm for how the system allocates classification information. Indeed, defendants' expert highlights these deficiencies, noting that plaintiff's expert report fails to appreciate "the distinction between three *distinct* functions in the specification of the '295 patent: (a) obtaining user input of classification information . . . (b) allocating that classification information to the digital images, and (c) transmitting the digital images and the classification information to a server."[59] Thus, the hardware relied on by plaintiff and plaintiff's expert is an insufficient disclosure of structure because these components are "simply devices for allowing a

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[57] PTAB Decision at *7.

[58] Smith Decl. at 6, 8.

[59] Beckmann Decl. at 3 (emphasis added).

user to input information into the telephone unit and are used, at most, to obtain the classification information prescribed . . . . The *further* step of allocating that classification information to digital images . . . cannot be performed by these input devices . . . ."[60] Defendants' expert has correctly identified the central problem in plaintiff's expert's declaration: plaintiff's expert describes various examples of structures disclosed in the '295 patent, but fails to identify a structure that corresponds to the allocating function claimed in Claims 1 and 25 of the '295 patent.

In sum, the '295 patent lacks any adequate structure or algorithm in any form that describes how classification information is allocated. Indeed, the problem is "not the adequacy of the substance or form of the disclosure, but the absence of any disclosure at all." *ePlus*, 700 F.3d at 520. As in *ePlus*, there is no recitation in simple prose, a flow chart, or otherwise in the '295 patent that can be construed as an algorithm corresponding to the means-plus-function term in Claims 1 and 25. Therefore, the record clearly and convincingly reflects that Claims 1 and 25, and by extension, dependent Claims 2-16 and 26, are invalid as indefinite because the specification of the '295 patent does not disclose corresponding structure in the form of an algorithm for the claimed function of allocating classification information.

V.

In sum, all of the claims in the '295 patent are invalid under Section § 101 as they are directed to patent-ineligible subject matter. Additionally, Claims 1 and 25, and dependent Claims 2-16 and 26, are invalid as indefinite pursuant to section § 112(f) because there is no disclosed structure corresponding to the claimed function in the means-plus-function terms. As a result, all of the claims in the '295 patent are invalid, and defendants' consolidated motion to

[60] *Id.* at 4.

dismiss is granted in these respects. It is therefore unnecessary to reach or decide defendants' remaining arguments with respect to joint infringement, indirect infringement, or plaintiff's remaining claims.

An appropriate Order will issue.

Alexandria, VA
February 6, 2015

/s/
T. S. Ellis, III
United States District Judge