UNITED STATES INTERNATIONAL TRADE COMMISSION

Washington, D.C.

In the Matter of **CERTAIN AUTOMATED TELLER MACHINES, ATM PRODUCTS, COMPONENTS THEREOF, AND PRODUCTS CONTAINING THE SAME**	**Inv. No. 337-TA-972**

ORDER NO. 21: **INITIAL DETERMINATION GRANTING RESPONDENTS' MOTION FOR SUMMARY DETERMINATION THAT THE ASSERTED CLAIMS OF U.S. PATENT NO. 7,314,163 ARE INVALID UNDER 35 U.S.C. § 101**

(June 28, 2016)

I. INTRODUCTION

A. Procedural Summary

On April 22, 2016, Respondents Nautilus Hyosung America, Inc., Nautilus Hyosung Inc., and HS Global, Inc. (collectively, "Nautilus") filed a motion for summary determination that the asserted claims of U.S. Patent No. 7,314,163 (the "'163 patent") are directed to ineligible subject matter under 35 U.S.C. § 101 (Motion Docket No. 972-009, the "motion").[1] On May 4, 2016, Complainants Diebold, Inc. and Diebold Self-Service Systems (collectively, "Diebold") filed their opposition. On May 9, 2016, Nautilus filed a reply brief.

B. Overview

The '163 patent, entitled "Check Accepting and Cash Dispensing Automated Banking Machine System and Method," issued on January 1, 2008 from an application filed on April 16,

---

[1] As of the filing date of the motion, Diebold was asserting claims 1-5 and 13-24. Since the completion of briefing on the motion, all asserted claims of the '163 patent except claims 20-24 have been withdrawn. *See* Order No. 14 (May 24, 2016).

2007. Mot. Ex. A (the '163 patent), Cover. The patent describes a computerized system for depositing checks in a deposit-accepting apparatus ("IDM" or "intelligent depository module" or "depository module"). *Id.* at 15:16-33. The asserted claims of the '163 patent are drawn to the abstract idea of using electronic media to collect and manipulate data contained in various documents so as to carry out certain financial transactions, such as depositing checks. Essentially, the '163 patent describes ways of processing financial documents using software in a computer housed inside an ATM. The asserted claims contain no new innovative element but apply standard computer technology to functions performed by ATM machines.

The '163 patent claims a method of enhancing security by obscuring some of the data on the digitized check image provided as a receipt. *See* '163 patent at 72:26-43. As discussed below, this feature simply represents another step in the manipulation of digitized data, and is insufficient to establish patentability for what is otherwise an abstract idea. *See Diamond v. Diehr*, 450 U.S. 175, 191-92 (1981) ("[I]nsignificant post-solution activity will not transform an unpatentable principle into a patentable process.")

C.   The '163 patent

Asserted claims 20-24 of the '163 patent set forth:

20. A method comprising:

(a) operating a check imaging device of a cash dispensing machine to image check data on a check, wherein the check data includes micr line data and signature data, wherein the machine includes [at] least one processor in operative connection with the check imaging device;

(b) generating check image data corresponding to check data imaged in step (a), wherein the check image data includes micr line image data representative of the micr line data, wherein the check image data includes signature image data representative of the signature data; and

2

(c) modifying the check image data generated in step (b) to produce modified check image data, wherein at least a portion of the micr line image data included in the check image data is not included in the modified check image data.

21. The method according to claim 20 wherein the micr line data includes an account number, wherein the check image data includes an account number area including account number data representative of the account number, wherein step (c) includes modifying the account number data in the account number area to produce a modified account number area, wherein the modified check image data includes the modified account number area.

22. The method according to claim 21 wherein the machine includes at least one printer, and further comprising

(d) operating the at least one printer to print on a receipt, a check image corresponding to the modified check image data.

23. The method according to claim 22 and further comprising

(e) operating the at least one printer to print check cancellation indicia on the check.

24. An article of computer readable media bearing instructions that are operative to cause at least one processor in a cash dispensing machine to carry out the method steps recited in claim 20.

'163 patent at 72:26-64.

A *Markman* hearing was held on April 29, 2016. *See* Order No. 17 (June 13, 2016).

There are no disputed claim constructions regarding the '163 patent, and the parties agreed to the

following constructions before the *Markman* hearing:

'163 patent	"image data"	"digital data that represents an image"
	"check image data"	"digital data that represents an image of a check"

	"visual features data"	"digital data that represents one or more visible features of a check"
	"signature image data"	"digital data that represents an image of a signature"
	"micr line image data"	"digital data that represents an image of a micr line"
	"character image data"	"digital data that represents an image of a character"
	"automated banking machine"	"any device which is used for carrying out transactionsinvolving transfers of value"

Id. at 3.

The patent specification describes a multitude of non-limiting embodiments that execute computerized processes for depositing checks in an ATM. As described, the patented methods include imaging, storing, and manipulating data electronically using standard computer technology. The patent references "a need for a deposit accepting apparatus and system for use in connection with automated banking machines that has the capability of handling and imaging more types of items, which may do so more reliably and which can be used in connection with more types of transactions and systems." *Id.* at 4:48-53. In pertinent part, the methods include optical scanning sensors that "are operative to produce image data which is electronic data which corresponds to a full and/or partial image of one and/or both sides of a check or other item." *Id.* at 23:11-16, 23:32-35. The methods also use magnetic sensing elements "to sense the magnetic properties of documents." *Id.* at 23:36-37. Magnets "operate to activate magnetic properties of magnetic inks on documents passing adjacent to the analysis module. These magnetic properties may then be more readily sensed by the magnetic sensing elements. . . ." *Id.* at 23:49-53.

Standard software components operate a terminal processor in the ATM, which contains

an operating system "such as OS/2® from IBM, Windows NT® or Windows XP® from

Microsoft, Linux or other suitable operating system." *Id.* at 24:5-11. "The operating system

communicates with a terminal control software layer [that] operates to control numerous aspects

of the ATM functions . . . ." *Id.* at 24:11-15. "[T]he terminal control software . . . sends

messages to and receives messages from devices associated with the IDM . . . ." *Id.* at 24:12-21.

Character recognition "software that is commercially available from Carreker Corp." and other

providers analyzes and manipulates data received from the sensing elements. *Id.* at 24:35-45.

The IDM also includes "an onboard computer processor which resides on a scanner card." *Id.* at

25:4-6. "The data from the scanning process and magnetic sensing operations is returned

through the operating system to memory. The data is then recovered from memory and

manipulated responsive to the image control and character recognition features of the recognition

subsystem 142. The results of the manipulation and analysis of the scanned data is then

communicated through the terminal control layer to a remote host." *Id.* at 25:30-37.

An authorization message from a host computer "will generally include the data

appropriately necessary in an ATM transaction message for purposes of authorizing the

transaction." *Id.* at 33:60-64. The terminal processor stores a copy of the image file data, which

"may be compressed for purposes of saving storage space." *Id.* at 34:58-63. Remote computers

"may be operative to process the check and to carry out settlement related thereto, using the

electronic image document as a substitute for the paper check." *Id.* at 35:1-4.

The patent includes a "character recognition software component 146 to apply the logic

used for optically reading micr symbols." *Id.* at 31:10-12. "The character recognition software

component 146 is operative to analyze the data and make evaluations in looking for known

5

characters of the particular type. In the exemplary embodiment the characters represented which are resolved are processed to derive ASCII values corresponding to the characters." *Id.* at 31:13-19, 52-56; 32:30-39 ("[T]he terminal processor further operates responsive to the recognition subsystem to binarize the data in the courtesy amount window. . . . This further assists in identifying the characters.").

A computer used in the method described can "modify the image data corresponding to a particular visual feature such as micr line and/or signature . . . [resulting] in the particular visual feature being different when an image of the check is printed by a receipt printer of the machine." *Id.* at 35:36-46.[2] Such modification may "make at least a portion of the micr line unreadable." *Id.* at 35:47-50. "This may be accomplished by having the image of a check that is printed on a receipt that is dispensed from the ATM not include certain actual data of the original check. This may be done for example by changing features in the printed image such as the micr line data or signatures of at least one of the maker of the check or the entity who endorses the check." *Id.* at 35:20-26.

The specification also describes embodiments in which "one or more computers operating in an automated banking machine may be programmed by reading through operation of one or more appropriate reading devices, machine readable articles which comprise media with computer executable instructions that are operative to cause the one or more computers (alternatively referred to herein as processors) in the machine to carry out one or more of the functions and method steps described. Such articles of machine readable media may include for

---

[2] A micr line on a check contains information encoded in magnetic ink. For example, "[t]he micr coding on a check can be used to identify the institution upon which the check is drawn. The coding also identifies the account number of the user and the check number. This coding commonly appears in one or several areas on the instrument. Reading this coding in the automated banking machine enables the machine operator to determine the source of checks or other instruments that have been presented." *Id.* at 2:51-59 (describing "Background Art").

example one or more CDs, DVDs, magnetic discs, optical disks, tapes, hard disk drives, PROMS, memory cards or other suitable types of media." *Id.* at 42:5-20.

The system "also has the capability of receiving documents, reading and/or capturing images and printing on them for purposes of authentication or cancellation and then returning them to the customer." *Id.* at 42:47-51.

II. DISCUSSION

A. The Issue is Ripe for Summary Determination.

Commission Rule 210.18 governing summary determination states, in part:

> The determination sought by the moving party shall be rendered if pleadings and any depositions, answers to interrogatories, and admissions on file, together with the affidavits, if any, show that there is no genuine issue as to any material fact and that the moving party is entitled to a summary determination as a matter of law.

19 C.F.R. § 210.18(b).

By analogy to Fed. R. Civ. P. 56 (a), in deciding whether to grant summary determination, the evidence "must be viewed in the light most favorable to the party opposing the motion ...with doubts resolved in favor of the nonmovant." *Crown Operations Int'l, Ltd. v. Solutia, Inc.*, 289 F.3d 1367, 1375 (Fed. Cir. 2002) (citations omitted); *see also Xerox Corp. v. 3Com Corp.*, 267 F.3d 1361, 1364 (Fed. Cir. 2001) ("When ruling on a motion for summary judgment, all of the nonmovant's evidence is to be credited, and all justifiable inferences are to be drawn in the nonmovant's favor."). The court should "assure itself that there is no reasonable version of the facts, on the summary judgment record, whereby the nonmovant could prevail, recognizing that the purpose of summary judgment is not to deprive a litigant of a fair hearing, but to avoid an unnecessary trial." *EMI Group N. Am., Inc. v. Intel Corp.*, 157 F.3d 887, 891 (Fed. Cir. 1998) (citations omitted). "In other words, '[s]ummary judgment is authorized when it

is quite clear what the truth is' . . . and the law requires judgment in favor of the movant based upon facts not in genuine dispute." *Paragon Podiatry Lab., Inc. v. KLM Labs., Inc.*, 984 F.2d 1182, 1185 (Fed. Cir. 1993) (citations omitted).[3]

B. Burden of Proof

"[T]he law remains unsettled as to whether the presumption of patent validity under 35 U.S.C. § 282 applies to subject matter eligibility challenges under 35 U.S.C. § 101." Notice of Commission Determination (1) to Review an Initial Determination Granting Respondents' Motion for Summary Determination that Certain Asserted Claims are Directed to Ineligible Subject Matter Under 35 U.S.C. § 101; and (2) on Review to Affirm the Initial Determination with Modification, Inv. No. 337-TA-963 (Apr. 4, 2016) ("Notice") at 2. In its Notice, the Commission held that: "Regardless of whether or not such a presumption applies, the record here warrants a finding that the asserted patent claims are directed to ineligible subject matter." *Id.* The same is true with regard to the instant motion – even under a clear and convincing burden of proof, the '163 patent claims ineligible subject matter.

C. Section 101 – Ineligible Subject Matter

Section 101 of the Patent Act sets forth four categories of patentable inventions: "Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefore, subject to the conditions and requirements of this title." 35 U.S.C. §101; *see also Intellectual Ventures I LLC v. Capital One Bank (USA)*, 792 F.3d 1363, 1366 (Fed. Cir. 2015). The Supreme Court has recognized three exceptions to section 101, holding ineligible for patenting "'[l]aws of nature, natural phenomena, and abstract ideas.'" *Ultramercial, Inc. v.*

---

[3] Diebold does not claim in its opposition that any factual disputes preclude summary determination or that the issue of ineligibility may not be decided on motion for summary determination for any other reason.

Hulu, LLC, 772 F.3d 709, 714 (Fed. Cir. 2014), *cert denied. sub nom. Ultramercial, LLC v. WildTangent, Inc.*, 135 S. Ct. 2907 (June 29, 2015) (quoting *Alice Corp. Pty. Ltd. v. CLS Bank Int'l*, 134 S. Ct. 2347, 2354 (2014)). "Patents that merely claim well-established, fundamental concepts fall within the category of abstract ideas." *Cyberfone Sys., LLC v. CNN Interactive Grp., Inc.*, 558 Fed. Appx. 988, 991 (Fed. Cir. 2014) (citing *Bilski v. Kappos*, 561 U.S. 593, 611-12 (2010)).

An invention, however, "is not rendered ineligible for patent simply because it involves an abstract concept." *Alice*, 134 S. Ct. at 2354 (citing *Diehr*, 450 U.S. at 187). The courts have recognized that "'[a]t some level,' all inventions . . . embody, use reflect, rest upon, or apply laws of nature, natural phenomena or abstract ideas.'" *Ultramercial*, 772 F.3d at 715 (quoting *Alice*, 134 S. Ct. at 2354).

To identify claims that are ineligible, the Supreme Court has articulated a two-step test. *Genetic Techs. Ltd. v. Merial L.L.C.*, Nos. 2015-1202, 2015-1203, 2016 WL 1393573 at *4 (Fed. Cir. Apr. 8, 2016). In the first step, the court must decide whether a claim is drawn to an abstract idea. *Id.* (citing *Alice*, 134 S. Ct. at 2355). If the patent claims an abstract idea, the court in the second step seeks to identify an "'inventive concept' sufficient to 'transform' the claimed abstract idea into a patent-eligible application." *Alice*, 134 S. Ct. at 2357 (quoting *Mayo Collaborative Servs. v. Prometheus Laboratories, Inc.*, 132 S. Ct. 1289, 1294, 1298 (2012). The claim limitations must disclose additional features indicating more than "well-understood, routine, conventional activity." *Mayo*, 132 S. Ct. at 1292. The limitations must "'narrow, confine, or otherwise tie down the claim so that, in practical terms, it does not cover the full abstract idea itself.'" *Cyberfone*, 558 Fed. Appx. at 992 (quoting *Accenture Global Servs.,*

GmbH v. Guidewire Software, Inc., 728 F.3d 1336, 1341 (Fed. Cir. 2013), *cert. denied*, 134 S.

Ct. 2871 (Jun. 30, 2014)).

Configuring a standard, computerized system to implement an abstract idea does not

make the claimed configuration patent-eligible. Manipulation of abstractions on a computer

"'cannot meet the test because they are not physical objects or substances, and they are not

representative of physical objects or substances.'" *Ultramercial*, 772 F.3d at 717 (quoting *Bilski*,

545 F.3d at 963); *see also Bancorp Servs., L.L.C. v. Sun Life Assur. Co. of Can.*, 687 F.3d 1266,

1278 (Fed. Cir. 2012), *cert. denied*, 134 S. Ct. 2870 (2014) ("[A]dding a 'computer aided'

limitation to a claim covering an abstract concept, without more, is insufficient to render the

claim patent eligible.'") (quoting *Dealertrack, Inc. v. Huber*, 674 F.3d 1315, 1333 (Fed. Cir.

2012)). The use of sensors does not render such a system patent-eligible. "[M]onitoring,

recording, and inputting information represent insignificant 'data-gathering steps,' and "thus add

nothing of practical significance to the underlying abstract idea." *Wireless Media Innovations,*

LLC v. Maher Terminals, LLC, 100 F. Supp.3d 405, 416 (D.N.J. 2015), *aff'd*, ___ Fed. Appx.

___, Nos. 2015-1634, 2015-1635, 2016 WL 463218 (Fed. Cir. Feb. 8, 2016) (quoting

CyberSource Corp. v. Retail Decisions, Inc., 654 F.3d 1366, 1370 (Fed. Cir. 2011)); *see also*

OIP Technologies, Inc. v. Amazon.com, Inc., 788 F.3d 1359, 1364 (Fed. Cir. 2015), *cert. denied*,

136 S. Ct. 701 (Dec. 14, 2015) (invalidating patent implementing the abstract idea of price

optimization on a generic computer); *accord Certain Activity Tracking Devices, Sys., &*

Components Thereof, Inv. No. 337-TA-963, Order No. 54 at 13-14 (Apr. 27, 2016)

(unreviewed).

Claims that are not merely drawn to abstract ideas implemented by the use of computers,

however, may be eligible. Specifically, claims directed to improving computer functioning by

the use of unconventional methods may appropriately be patented. *See Enfish, LLC v. Microsoft Corp.*, No. 2015-1244, 2016 WL 2756255 at *4 (Fed. Cir. May 12, 2016) ("[W]e find it relevant to ask whether the claims are directed to an improvement to computer functionality versus being directed to an abstract idea, even at the first step of the *Alice* analysis.")

D. The Asserted Claims of the '163 Patent Seek Protection of an Abstract Idea.

Step One: Asserted claims 20-23 of the '163 patent set forth a method for operating a check imaging device of a cash dispensing machine, generating the check image data corresponding to the data imaged, and modifying the check image data to produce modified check image data on a receipt. Claim 24 describes an article of computer readable media bearing instructions to a computer to carry out the method steps recited in claim 20. The claims are highly general and do little more than describe basic computer functions. As such, they are ineligible for patent under *Alice* and the many cases that have applied it.

Indeed, the Federal Circuit recently issued a decision that comes very close to controlling the outcome here. *Content Extraction & Transmission, LLC v. Wells Fargo Bank, Nat'l. Ass'n.*, 776 F.3d 1343 (Fed. Cir. 2014), *cert. denied*, 136 S. Ct. 119 (Oct. 5, 2015), involved claims in four patents that "generally" recited "a method of 1) extracting data from hard copy documents using an automated digitizing unit such as a scanner, 2) recognizing specific information from the extracted data, and 3) storing that information in a memory." 776 F.3d at 1345. More specifically, the method described by the patents in *Content Extraction* could be "performed by software on an automated teller machine (ATM) that recognizes information written on a scanned check, such as the check's amount, and populates certain data fields with that information in a computer's memory." *Id.*[4]

---

[4] In *Content Extraction*, Diebold sought a declaratory judgment that its ATMs did not infringe the asserted patents. 776 F.3d at 1345-46.

The Federal Circuit held in *Content Extraction* that the claims of the asserted patents were drawn to abstract ideas. "The concept of data collection, recognition, and storage is undisputedly well-known," the Circuit said. "And banks have, for some time, reviewed checks, recognized relevant data such as the amount, account number, and identity of account holder, and stored that information in their records." 776 F.3d at 1347. The Circuit rejected the argument that the requirement of not only a computer but an additional machine—a scanner—distinguished the patent from those found ineligible in *Alice* and its progeny. A scanner, the patentee argued, can perform functions that the human mind cannot. But the Circuit responded that "the claims in *Alice* also required a computer that processed streams of bits," and the claims were found to be abstract nonetheless. *Id.* The Circuit affirmed that the claims in *Content Extraction* were "drawn to the basic concept of data recognition and storage," and therefore constituted patent-ineligible abstract ideas. *Id.*

Content Extraction indicates that the use of computers in an ATM to recognize, extract, collect and store the information on a check, so as to facilitate automatic deposit or other electronic financial transactions, is patent ineligible under *Alice*. Such computer functions merely replace the role of a bank teller or other employee in collecting data on a check, verifying it, and processing the transaction. That a physical object, *e.g.*, a paper check, is transformed by technological means into binary code or other computer-readable information does not change the fact that the function of collecting and processing information for the purpose of transacting a check deposit is an abstract idea. *See Wireless Media*, 100 F.Supp. 3d at 413 (holding invalid patents "directed to the same abstract idea: monitoring locations, movement, and load status of shipping containers within a container-receiving yard, and storing, reporting and communicating this information in various forms through generic computer functions")

The *Content Extraction* case is factually similar to this one and was decided by a court

with the authority to create binding precedent under section 101. The Federal Circuit's decision

covers most of the ideas embodied in the '163 patent. One aspect of the method described in

the '163 patent, however, was not specifically addressed by the Circuit in *Content Extraction*,

that is, the process of reading micr code from the check electronically, then manipulating the

electronic data so as to mask certain identifying information for security reasons, before

presenting the depositor with a receipt bearing an image of the original check, as modified. '163

patent at 72:26-42 (claim 20). Based on this aspect of the '163 patent, Diebold attempts to

distinguish *Content Extraction* by arguing that the "claim at issue in *Content Extraction* was not

directed to the use of specific technology, nor to solving a specific technological problem." Opp.

at 19 (citing *Content Extraction*, 776 F.3d at 1349).

Diebold's argument is unavailing. The Federal Circuit in the passage cited by Diebold

actually rejected the argument that "additional steps, such as extracting and detecting specific

data fields," rendered the claims in *Content Extraction* eligible. *Content Extraction*, 776 F.3d at

1348. The Federal Circuit held that specific limitations such as "'defining a set of symbols

which designate fields of information required by an application program; and detecting the

presence of a particular one of said defined set of symbols on a hard copy document and

extracting a field of information required by an application program based on said detecting,'"

merely described the use of generic technology and therefore did not save the claim from

ineligibility. *Id.* at 1348-49 (quoting Appellant's Brief at 40-41). Indeed, the use of generic

computer technology, however "specific" to the particular environment, will not rescue a claim

from ineligibility, if the functionality described constitutes an abstract idea. *See TLI Comm'n's*

LLC v. AV Auto., LLC, Nos. 2015-1372, 2015-1376, 2015-1377, 2015-1378, 2015-1379, 2015-

1382, 2015-1383, 2015-1384, 2015-1417, 2015-1419, 2015-1421, 2016 WL 2865693, at *3 (Fed. Cir. May 17, 2016) (holding that section 101 applies where "the specification makes clear that the recited physical components merely provide a generic environment in which to carry out the abstract idea of classifying and storing digital images in an organized manner").

In *TLI*, the Federal Circuit considered and held invalid a method for uploading digital photos from a mobile device. 2016 WL 2865693 at *1. The Circuit clarified that a relevant inquiry under step one is "'whether the claims are directed to an improvement to computer functionality versus being directed to an abstract idea.'" *Id.* at *3 (quoting *Enfish*, 2016 WL 2756255 at *3). The Circuit contrasted claims "'directed to an improvement in the functioning of a computer with claims 'simply adding conventional computer components to well-known business practices . . . or 'generalized steps to be performed on a computer using conventional computer activity.'" *Id.* (quoting *Enfish*, 2016 WL 2756255 at *7).

When the rationale articulated in *TLI* is applied here, it is evident that the asserted claims of the '163 patent do not improve computer functionality in any way. Instead, the claims are directed to improving the function of conventional ATM machines using conventional computer processing to collect and/or modify data contained in micr lines or signature lines. The use of computers in this way does not remove the claims from the category of abstract ideas. In fact, using computers to facilitate processing checks in an ATM *is* an abstract idea. *See TLI*, 2016 WL 2865693 at * 4 (explaining that the telephone unit used in that patent "itself is merely a conduit for the abstract idea of classifying an image and storing the image based on its classification").

Diebold argues that the asserted claims are "directed to a manner in which ATM components . . . work together to facilitate the specific function of creating modified check

image data that does not include sensitive information." Opp. at 19 (citing claim 20). Claim 20 does not describe such an invention, however. Claim 20 describes using "a *processor* in operative connection" with a "check imaging device." '163 patent at 72:30-32 (emphasis added). Generating and modifying check image data and signature image data is performed by the processor. *See id.* at 5:37-40 ("The ATM includes one or more computers therein (alternatively referred to herein as processors) which operate to control the transaction function devices within the ATM including aspects of the deposit accepting apparatus."). The processor and check imaging device do not work together in any novel way. *See TLI*, 2016 WL 2865693 at *3 (finding that the ineligible invention simply provided for "recording, administration and archiving of digital images simply, fast and in such way that the information therefore may be easily tracked'").

The electronic functions, moreover, "are described in vague terms without any meaningful limitations," *TLI*, 2016 WL 2865693 at *4:

- "operating a check imaging device of a cash dispensing machine to image check data on a check," '163 patent at 72:27-28;
- "generating check image data corresponding to check data," *id.* at 72:32-34;
- "modifying the check image data generated in step (b) to produce modified check image data, wherein at least a portion of the micr line image data included in the check image data is not included in the modified check image data," *id.* at 72:38-43;
- "modifying the account number data in the account number area to produce a modified account number area, wherein the modified check image data includes the modified account number area," id. at 72:48-51
- "operating the at least one printer to print on a receipt, a check image corresponding to the modified check image data," *id.* at 72:54-56; and
- "operating the at least one printer to print check cancellation indicia on the check," *id.* at 72:59-60.

15

The specification of the '163 patent, like the patent at issue in *TLI*, "fails to provide any technical details for the tangible components, but instead predominately describes the system and methods in purely functional terms," *TLI*, 2016 WL 2865693 at *4:

- "the computer senses that the deposit envelope has been moved," '163 patent at 5:54-55;
- "the computer operates responsive to inputs provided by the customer," *id.* at 6:46-47;
- "the computer operates to analyze the characters," *id* at 7:8-9;
- "the computer operates to locate and identify the courtesy amount," *id.* at 7:14-15;
- "the computer decides that the characters in the courtesy amount area may be determined with a sufficient level of assurance," *id.* at 7:14-16;
- "the computer operates to analyze the characters in the micr line of the check as well as the courtesy amount," *id.* at 7:20-22; and
- Changes in the micr line "may be accomplished in a number of ways such as by having the computer modify the image data to mask the micr line. . . . Alternatively . . . the micr line may be obliterated by having the image data modified so that when printed, additional indicia is printed in the area of the micr line such that at least a portion of the micr line is not readable. . . .," *id.* at 35:50-36:10.

For these reasons, "the claims are not directed to a solution to a 'technological problem' as was the case in" *Diehr*. *TLI*, 2016 WL 2865693 at * 4 (citing *OIP*, 788 F.3d at 1364). As noted by the Federal Circuit in *TLI* and *OIP*, "'We must read *Diehr* in light of *Alice*, which emphasized that *Diehr* does not stand for the general proposition that a claim implemented on a computer elevates an otherwise ineligible claim into a patent-eligible improvement." *Id.*

Here, as in *Content Extraction* and *TLI*, the asserted claims are directed to the abstract idea of recognizing data, imaging data, processing data, and manipulating data to permit greater speed and convenience in what is basically the well-known process of depositing a check. That some of the data is recognized, imaged, processed, and manipulated by a variety of conventional

16

electronic means, *e.g.*, "a processor in operative connection" with a "check imaging device," '163 patent at 72:27-31, or that the data imaged includes a micr line, *id.* at 72:26-43, does not change the analysis. Modifying check image data, *see id.* at 72:39-46, by use of a conventional processor sets forth nothing other than conventional computer functionality applied to financial transactions.

Diebold argues that the '163 patent is directed to solving a problem that only arises in the context of ATMs. *See* Opp. at 12. "[A]lthough the claims limit the abstract idea to a particular environment . . . that does not make the claims any less abstract for the step 1 analysis," however. *TLI*, 2016 WL 2865693 at *5. *Accord, e.g., Intellectual Ventures*, 792 F.3d at 1366 (citing *Alice*, 134 S. Ct. at 2358) ("An abstract idea does not become nonabstract by limiting the invention to a particular field of use or technological environment . . . ."). As demonstrated above and discussed further in step two of the analysis, "while these claims may have a narrower scope . . . . no claim contains an 'inventive concept' that transforms the corresponding claim into a patent-eligible application of the otherwise ineligible abstract idea." *Content Extraction*, 776 F.3d at 1139.

To assert the argument that the claims of the '163 patent embody an inventive concept, *see* Opp. at 13, Diebold conflates inventions involving advances in computer technology, as in *DDR Holdings, LLC. v. Hotels.com, L.P.*, 773 F.3d 1245 (Fed. Cir. 2014), with inventions that merely use computer technology to implement abstract ideas in a particular technological environment. *See Internet Patents Corp. v. Active Network, Inc.*, 790 F.3d 1343, 1349 (Fed. Cir. 2015 (holding claims invalid that "represent merely generic data collection steps or siting the ineligible concept in a particular technological environment"). In *DDR*, the court found that the patented claims involved "an inventive concept for resolving [a] particular Internet-centric

problem." 773 F.3d at 1259. The problem addressed was that of "retaining website visitors that,

if adhering to the routine, conventional functioning of Internet hyperlink protocol, would be

instantly transported away from a host's website after 'clicking' on an advertisement and

activating a hyperlink." 773 F.3d at 1257.[5] *DDR* states expressly, moreover, that "not all claims

purporting to address Internet-centric challenges are eligible for patent." *Id.* at 1258. In light of

the numerous decisions following *DDR* in which patents like the '163 patent have been declared

ineligible, *DDR* cannot be construed to confer eligibility on all patents that purport to address a

technological challenge.

Diebold has not demonstrated that the asserted claims of the '163 patent embody any

technological advance. Diebold does not claim to have invented the technology that makes

magnetic printing possible, or the scanner that enables micr lines from a check to be detected by

a processor "in operative connection with a check imaging device," as set forth in claim 20 (a).

'163 patent at 72:27-32. Diebold does not claim to have invented the technology for generating

an image of a check, including micr line image data and signature image data, as set forth in

claim 20 (b). *Id.* at 72:32-38. Nor does Diebold claim to have invented the technology for

modifying check image data, including modifying data in the micr line, as set forth in claim

20(c), *id.* at 72:38-43. All of the technologies that make these functions possible were known in

the prior art. *See id.* at 2:43-3.5. What Diebold claims to have invented is the idea of using

computer processors to modify the image of a check to mask or otherwise block out some of the

---

[5] *Summit 6 LLC v. HTC Corp.*, Civil Action No. 7:14-cv-00014-O (N.D. Tex. May 28, 2015), is
another case that recognized the patentability of an advance in computer technology. *See* slip op.
at 11 ("[T]he invention purports to address various computer-based problems, such as digital
resizing or compression of an image and changing an image's file format before transmission to
another location.") (attached as Opp. Ex. 2). As Diebold asserts in its opposition, however, the
asserted claims of the '163 patent are "rooted in ATM Technology," not computer technology.
See Opp. at 21.

micr data. This is an abstract idea implemented by conventional electronic means. Diebold has

demonstrated no technological advance in respect to asserted claims 20-24 that would distinguish

them from the claims deemed ineligible by the Federal Circuit in *Content Extraction*. Instead,

Diebold presents legal argument, without support from the '163 patent itself. Diebold argues

that the asserted claims are not directed to an abstract idea but rather "to the use of deposit

automation machines that 'verify the authenticity of the check' and 'change[] and modify[]

image data corresponding to checks received in an automated banking machine." Opp. at 9-10

(quoting '163 patent at 6:22-23, 26-28). Diebold here sets forth an abstract idea and nothing

more. Alternatively, Diebold argues, "the claims add meaningful elements that transform" the

asserted claims "into something significantly more than an abstract idea." Opp. at 10. But

Diebold fails to identify any specific element that is transformative or to explain how the

transformation occurs or how it is embodied in the claims of the patent.

Diebold argues that the '163 patent solves a technical problem that is unique to ATMs,

because there was a need "to provide customers with a record of their transactions." Opp. at 10-

11. Diebold argues that "the '163 patent provides a very specific solution that 'integrates the

building blocks into something more.'" *Id.* at 11 (citing *Alice*, 134 S. Ct. at 2354). But Diebold

does not say what the "very specific" solution is – other than the use of conventional electronic

processing equipment to detect data on the check, image it, and print a receipt with some images

altered for security purposes. The purported technological advances are discussed only in terms

of abstract ideas, *e.g.*, "how to give the customer more secure and reliable confirmation of a

deposit." *Id.* at 12.

Diebold asserts further that the "problem" solved by the '163 patent is "'rooted in

computer technology in order to overcome a problem specifically arising in the realm of

computer networks,' *i.e.,* the disclosure of sensitive information during the receipt or display of a check image receipt." Opp. at 12-13 (citing *DDR*, 773 F.3d at 1257). But this is an assertion lacking any evidence in the patent to support it. As stated above, nowhere in the patent is the pertinent computer technology described in other than functional terms. The claims make no reference to any computer network, and the problem of masking sensitive information is not unique to computer technology.

In contrast, as the Circuit explained in *DDR*, patentable claims "specify how interactions with the Internet are manipulated to yield a desired result – a result that overrides the routine and conventional sequence of events ordinarily triggered by the click of a hyperlink." 773 F.3d at 1258. "Instead of the computer network operating in its normal, expected manner," the computer network in *DDR* was changed by the claimed system. *Id.* at 1258-59. This innovation in the operation of the computerized system distinguished the claims in *DDR* from those in *Ultramerical* "because they do not broadly and generically claim 'use of the Internet' to perform an abstract business practice (with insignificant added activity)." 773 F.3d at 1258.

No comparable innovation is found in the '163 patent. The asserted claims of the '163 patent fit the model of those found ineligible in *Ultramercial*, not the claims found patentable in *DDR*. The '163 patent, as discussed above, broadly claims standard computer methods for transacting check deposits in an ATM. In contrast to the claims in *DDR*, the asserted claims of the '163 patent are not limited to a specific computer-implemented method of alteration, but to all computer-implemented methods of check image alteration that disguise information in the micr line. Thus, the '163 patent specification sets forth a number of alternative abstract ideas intended to accomplish the abstract idea of altering micr data on the image of a check as a security measure:

In some embodiments the visual appearance of the printed image of the
check may have the micr line changed. The changes in the micr line
may include changes which make at least a portion of the micr line
unreadable. This may be accomplished in a number of ways such as by
having the computer modify the image data to mask the micr line so that
at least a portion of the micr line is not visible by having an image
overlying the micr line. This might include for example applying a
graphic such as a black box so that it is printed in the area where the micr
line would normally appear. Alternatively a different graphic with
different information may be printed. Alternatively in some
embodiments the micr line may be obliterated by having the image data
modified so that when printed, additional indicia is printed in the area of
the micr line such that at least a portion of the micr line is not readable.
Alternatively in some embodiments the data corresponding to the micr
line may be changed in other ways. This may include changing certain
characters in the original micr line or adding characters so as to produce
a micr line that rather than corresponding to the one on the original
check, corresponds to data which is different. This different data in
some cases may be printed as a decoy replacing the original data.
Alternatively in some embodiments the substitute data may be useful
data that is helpful in processing the check or related transaction.
Alternatively in some embodiments the substitute micr line data may be
data that is usable at a bank or other financial institution but which is
included on the check to avoid disclosing the original account number
data. Of course these approaches are merely exemplary.

'163 patent at 35:47-36:9.

Rather than describing a specific, technologically innovative method for accomplishing

these abstract ideas, the patent seeks to monopolize the idea of using a computer to alter micr

lines by manipulating digitized images on a check. *See Internet Patents,* 790 F.3d at 1348

(invalidating patent claim that "contains no restriction on how the result is accomplished,"

because the "mechanism for [performing the claimed function] is not described, although this is

stated to be the essential innovation"). The "first step in the *Alice* inquiry . . . asks whether the

focus of the claims is on the specific asserted improvement in computer capabilities . . . or,

instead, on a process that qualifies as an 'abstract idea' for which computers are invoked merely

21

as a tool." *Enfish,* 2016 WL 2756255, at *4-5. The asserted claims of the '163 patent describe the use of computers only as a tool for executing various ATM functions, including altering check data images.

That the method described in the '163 patent requires "specific hardware," *see* Opp. at 16, does not establish eligibility under section 101. "[A]n abstract idea is not rendered patentable just because of connections to the physical world." *Wireless Media,* 100 F. Supp. 3d at 415 (citing *Alice,* 134 S. Ct. at 2358). The Supreme Court in *Alice* affirmed the invalidity of claims that "formally recite a tangible article of manufacture – a computer-readable medium, such as a computer disk or other data storage device . . . ." *CLS Bank Int'l v. Alice Corp. Pty. Ltd.,* 717 F.3d 1269, 1285 (Fed. Cir. 2013) (Lourie, concurring). The same recitation of computer-readable media in asserted claim 24 cannot save that claim from ineligibility. *See* '163 patent at 72:61-64 (claiming "[a]n article of computer readable media bearing instructions that are operative to cause at least one processor in a cash dispensing machine to carry out the method steps recited in claim 20").

Step Two: When the first step of the analysis reveals that a patented system is only an abstract idea, step two of the test for ineligibility requires examination of the patent to determine whether the claims add significantly to the abstract system described. "[T]here must be an 'inventive concept' to take the claim into the realm of patent-eligibility." *Intellectual Ventures I,* 792 F.3d at 1367 (quoting *Alice,* 134 S. Ct. at 2355). The invention must "'transform' the claimed abstract idea into patent-eligible subject matter." *Ultramercial,* 772 F.3d at 715 (citing *Alice,* 134 S. Ct. at 2355).

None of the elements disclosed in the asserted claims of the '163 patent is innovative or transformative. The asserted claims describe a method of operating a check imaging device of

an ATM to image a check, transmit the image to at least one processor in the machine, and modify the data on the check. The claims specify that the modified data include micr line data and account numbers. The method includes a printer to print a receipt showing the modified check image data, or to print check cancellation data on the check. The claims call for instructions for performing the claimed method to be stored on an article of computer readable medium. *See* '163 patent at 72:26-64. The asserted claims describe a method of using computer technology in a conventional way that fits squarely within the doctrine of ineligibility set forth in *Alice* . "[W]holly generic computer implementation is not generally the sort of 'additional featur[e]' that provides any 'practical assurance that the process is more than a drafting effort designed to monopolize the [abstract idea] itself.'" *Alice*, 134 S. Ct. at 2358 (quoting *Mayo*, 132 S. Ct. at 1297).[6]

Diebold places great emphasis on the utility of the methods described in the '163 patent. But step two of the *Alice* analysis asks whether asserted claims are innovative, not whether they are useful. "[C]laiming the improved speed or efficiency inherent with applying the abstract idea on a computer" does not provide "a sufficient inventive concept." *See Intellectual Ventures I*, 792 F.3d at 1367 (citing *Bancorp*, 687 F.3d at 1278). As the Federal Circuit explained in *Ultramercial*: "Any transformation from the use of computers or the transfer of content between computers is merely what computers do and does not change the analysis." 772 F.3d at 717; *see also Cyberfone*, 558 Fed. Appx. at 993 (holding that a patent specifying a range of different

---

[6] "The Federal Circuit has held that an extended claim-by-claim analysis is not necessary where multiple claims are "'substantially similar and linked to the same abstract idea.'" *Wireless Media*, 100 F. Supp. 3d at 409 (quoting *Content Extraction*, 776 F.3 at 1348*)*. In this instance, all the asserted claims are related to the method described in claim 20; in any event, each of the asserted claims has been considered individually and in combination.

machines that can be used in the method "adds nothing of significance to the claimed abstract idea.").

That the method described may be new to the ATM industry does not in itself transform an abstract idea into patentable subject matter. *See Ultramercial*, 772 F.3d at 716 ("That some of the eleven steps were not previously employed in this art is not enough – standing alone – to confer patent eligibility. . . ."). The rewards of the patent system "do not flow to ideas – even good ones – outside of the technological arena." *Id.* at 721 (Mayer, J., concurring).

Diebold's citation to *ART+COM Innovationpool GmbH v. Google, Inc.*, Civil Action No. 14-217-RGA, 2016 WL 1718221 (D. Del. Apr. 28, 2016), fails to support its arguments and actually illustrates why the asserted claims of the '163 patent are ineligible. The patent in *ART+COM* described a software-implemented method for providing a "pictorial representation of space-related data, particularly geographical data of flat or physical objects." 2016 WL 1718221 at *1 (citation and quotation marks omitted). "The purported solution [to which the patent was directed] was two-fold: (1) to obtain data from spatially distributed data sources; and (2) to utilize a recursive process to request and display data with increasing resolution for a field of view." *Id.* (citation and quotation marks omitted). In *ART+COM*, the district court first held that the patent was drawn to an abstract idea: "Like the steps of collecting, recognizing, and storing data that the Federal Circuit found abstract in *Content Extraction*," the court stated, "claim 1 recites an 'undisputedly well-known' practice that 'humans have always performed.'" *Id.* at *3 (quoting *Content Extraction*, 776 F.3d at 1347). Moreover, the court held that the "particular technological implementation" of the abstract idea did not necessarily turn an abstraction into "something concrete." *Id.* at 4 (citing *Ultramercial*, 772 F.3d at 715).

In step two, however, addressing the question "'What else is there in the claims before us?'" the district court in *ART+COM* found something more than "the abstract idea of storing image data, then repeatedly requesting specific data, which is then stored and displayed." 2015 WL 1718221 at *5 (quoting *Alice*, 134 S. Ct. at 2355). The court quoted extensively from the patent itself, which, it concluded, described "improvements over prior art systems like electronic maps stored on CD-ROMs, car navigation systems, or flight simulators." *Id.* The court explained:

> As an ordered combination, this iterative process allows a user to access more electronic pictorial data in a more rapid fashion. The distributed data sources permit a user to access masses of data, while the recursive division step permits a user to access that data quickly, with increasing resolution over time. This amounts to 'more than a drafting effort designed to monopolize the [abstract idea] itself.

Id. (quoting *Alice*, 134 S. Ct. at 2357). In the context of the highly technical process described, the district court in *ART+COM* found a patentable innovation. *Id.*

Diebold has failed to point out any technological process equivalent to the invention disclosed in *ART+COM*. Mere argument cannot overcome the fact that the asserted claims of the '163 patent describe a method for organizing conventional elements of an ATM machine in a combination that utilizes computers in exactly the way computers traditionally are used, with the goal of making automated banking faster and more convenient. Unlike the patent in *ART+COM*, the asserted claims of the '163 patent describe no technological advance that is unexpected or innovative.

Machine Or Transformation Test

The second step of the analysis required by *Alice* may include the machine-or-transformation test, although it is not the sole test, as a "clue" to whether a claimed process is patent-eligible. *See Bancorp*, 687 F.3d at 1278 (citing *Bilski*, 130 S. Ct. at 3227). Using this

25

analytical tool, the court inquires whether the claimed process "(1) is tied to a particular machine or apparatus, or (2) it transforms a particular article into a different state or thing." *In re Bilski*, 545 F.3d 943, 954 (Fed. Cir. 2008), *aff'd on other grounds sub nom. Bilski v. Kappos*, 561 U.S. 593 (2010). Again, the use of computers as such does not satisfy the machine-or-transformation test. *See Wireless Media*, 100 F. Supp.3d at 417 (holding that "generic computer functions" are not inventive).

Citing the Circuit's decision in *In re Bilski*, Diebold maintains that the '163 patent satisfies the machine-or-transformation test because "the claims allow a check itself to be transformed into a receipt for the transaction." Opp. at 23. The paradigm for the Federal Circuit's analysis in *In re Bilski* is *Diehr*. *See In re Bilski*, 545 F.3d at 952-953. The '163 patent, however, does not fit that template.

In *Diehr*, the patented process involved the use of a mathematical formula to transform uncured synthetic rubber "into a different state or thing" and solved a specific, technological problem: the over- or under- curing of rubber. 450 U.S. at 184 ("[T]hat respondents' claims involve the transformation of an article, in this case raw, uncured synthetic rubber, into a different state or thing cannot be disputed."), 187 ("[C]omputer use incorporated in the process patent significantly lessens the possibility of 'overcuring' or 'undercuring'. . . ."). At the most basic level of legal analysis, if Diebold's reading of *Diehr* were correct, *Content Extraction* would not have been decided as it was. *See Content Extraction*, 776 F.3d at 1348-49 (holding claims unpatentable despite the description of "output representing a diversity of types of hard copy documents from an automatic digitizing unit"). More broadly, converting real world objects into data that can be manipulated by a computer is exactly the kind of "transformation" that, without more, results in a finding of ineligibility under section 101. *See id.*, 776 F.3d at
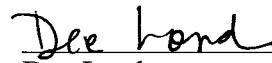
1349 (concluding that none of the patentee's claims "amount to 'significantly more' than the abstract idea of extracting and storing data from hard copy documents using generic scanning and processing technology").

III. CONCLUSION

For the foregoing reasons, Motion Docket No. 972-009 is GRANTED. The asserted claims of U.S. Patent No. 7,314,163 are directed to ineligible subject matter under 35 U.S.C. § 101, and it is my Initial Determination that this patent is terminated from the Investigation.

This Initial Determination, along with supporting documentation, is hereby certified to the Commission. This Initial Determination shall become the determination of the Commission unless a party files a petition for review of the Initial Determination pursuant to Commission Rule 210.43(a), or the Commission, pursuant to Commission Rule 210.44, orders, on its own motion, a review of the Initial Determination or certain issues contained herein. 19 C.F.R. § 210.42(d).

SO ORDERED.

Dee Lord
Administrative Law Judge

PUBLIC CERTIFICATE OF SERVICE

I, Lisa R. Barton, hereby certify that the attached **ORDER** has been served by hand upon the following parties as indicated, on **June 28, 2016.**

Lisa R. Barton, Secretary
U.S. International Trade Commission
500 E Street, SW, Room 112
Washington, DC 20436

On Behalf of Complainants Diebold, Incorporated and Diebold Self-Service Systems:

Adam D. Swain, Esq.
ALSTON & BIRD LLP
950 F Street NW
Washington, DC 20004

☐ Via Hand Delivery
☒ Via Express Delivery
☐ Via First Class Mail
☐ Other:_____

On Behalf of Respondents Nautilus Hyosung Inc., Nautilus Hyosung America Inc., and HS Global Inc.:

Kevin Wheeler, Esq.
FISH & RICHARDSON P.C.
1425 K Street, N.W., 11th Floor
Washington, DC 20005

☐ Via Hand Delivery
☒ Via Express Delivery
☐ Via First Class Mail
☐ Other:_____