

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

SAMSUNG ELECTRONICS AMERICA, INC., and
SAMSUNG ELECTRONICS CO., LTD.,
Petitioner

and

APPLE INC.,
Petitioner,

v.

SMARTFLASH LLC,
Patent Owner.

Case CBM2014-00190¹
Patent 7,334,720 B2

Before JENNIFER S. BISK, RAMA G. ELLURU,
JEREMY M. PLENZLER, and MATTHEW R. CLEMENTS,
Administrative Patent Judges.

ELLURU, *Administrative Patent Judge.*

FINAL WRITTEN DECISION
35 U.S.C. § 328(a) and 37 C.F.R. § 42.73

¹ CBM2015-00118 (U.S. Patent 7,334,720 B2) was consolidated with this proceeding. Paper 31, 6–7.

INTRODUCTION

A. Background

Petitioner, Samsung Electronics America, Inc., Samsung Electronics Co., Ltd., and Samsung Telecommunications America, LLC (“Samsung”),² filed a Corrected Petition to institute covered business method patent review of claims 13 and 14 of U.S. Patent No. 7,334,720 B2 (Ex. 1001, “the ’720 patent”) pursuant to § 18 of the Leahy-Smith America Invents Act (“AIA”). Paper 4 (“Pet.”). Patent Owner, Smartflash LLC (“Smartflash”), filed a Preliminary Response. Paper 7 (“Prelim. Resp.”). On April 2, 2015, we instituted a covered business method patent review (Paper 9, “Institution Decision” or “Inst. Dec.”) based upon Samsung’s assertion that claims 13 and 14 are directed to patent ineligible subject matter under 35 U.S.C. § 101. Inst. Dec. 18.

Subsequent to institution, Smartflash filed a Patent Owner Response (Paper 23, “PO Resp.”³), and Samsung filed a Reply (Paper 30, “Reply”).

On April 30, 2015, Apple Inc. (“Apple”) filed a Petition to institute a covered business method patent review of the same claims of the ’720 patent based on the same grounds. *Apple Inc. v. Smartflash LLC*, Case CBM2015-00118 (Paper 2, “Apple Pet.”). Apple simultaneously filed a “Motion for Joinder” of its newly filed case with Samsung’s previously instituted case. CBM2015-00118 (Paper 3, “Apple Mot.”). On August 6, 2015, we granted

² Samsung Telecommunications America, LLC, a petitioner at the time of filing, merged with and into Samsung Electronics America, Inc. as of January 1, 2015. Paper 8.

³ We cite to the redacted Patent Owner response.

Apple's Petition and consolidated the two proceedings.⁴ Paper 31;
CBM2015-00118 (Paper 11).

This Final Written Decision is issued pursuant to 35 U.S.C. § 328(a) and 37 C.F.R. § 42.73. For the reasons that follow, we determine that Petitioner has shown by a preponderance of the evidence that claims 13 and 14 of the '720 patent are directed to patent ineligible subject matter under 35 U.S.C. § 101.

B. The '720 Patent

The '720 patent relates to “a portable data carrier for storing and paying for data and to computer systems for providing access to data to be stored” and the “corresponding methods and computer programs.” Ex. 1001, 1:6–10. Owners of proprietary data, especially audio recordings, have an urgent need to address the prevalence of “data pirates,” who make proprietary data available over the Internet without authorization. *Id.* at 1:15–41. The '720 patent describes providing portable data storage together with a means for conditioning access to that data upon validated payment. *Id.* at 1:46–62. According to the '720 patent, this combination of the payment validation means with the data storage means allows data owners to make their data available over the Internet without fear of data pirates. *Id.* at 1:62–2:3.

As described, the portable data storage device is connected to a terminal for Internet access. *Id.* at 1:46–55. The terminal reads payment information, validates that information, and downloads data into the portable storage device from a data supplier. *Id.* The data on the portable storage

⁴ For purposes of this decision, we will cite only to Samsung's Petition, and refer collectively to Samsung and Apple as “Petitioner.”

device can be retrieved and output from a mobile device. *Id.* at 1:56–59. The ’720 patent makes clear that the actual implementation of these components is not critical, and the alleged invention may be implemented in many ways. *See, e.g., id.* at 26:13–16 (“The skilled person will understand that many variants to the system are possible and the invention is not limited to the described embodiments . . .”).

C. Challenged Claims

Petitioner challenges claims 13 and 14 of the ’720 patent. Claim 13 depends from independent claim 3, which is not explicitly challenged in this proceeding, and claim 14 is independent. Claims 3, 13, and 14 recite the following.

3. A data access terminal for retrieving data from a data supplier and providing the retrieved data to a data carrier, the terminal comprising:
 - a first interface for communicating with the data supplier;
 - a data carrier interface for interfacing with the data carrier;
 - a program store storing code; and
 - a processor coupled to the first interface, the data carrier interface, and the program store for implementing the stored code, the code comprising:
 - code to read payment data from the data carrier and to forward the payment data to a payment validation system;
 - code to receive payment validation data from the payment validation system;
 - code responsive to the payment validation data to retrieve data from the data supplier and to write the retrieved data into the data carrier; and
 - code responsive to the payment validation data to receive at least one access rule from the data supplier and to write the at least one access rule into the data carrier, the at least one access rule specifying at least one condition for accessing the retrieved data

written into the data carrier, the at least one condition being dependent upon the amount of payment associated with the payment data forwarded to the payment validation system.

Ex. 1001, 26:41–67.

13. A data access terminal according to claim 3 integrated with a mobile communication device, a personal computer, an audio/video player, and/or a cable or satellite television interface device.

Id. at 28:1–4.

14. A method of providing data from a data supplier to a data carrier, the method comprising:

- reading payment data from the data carrier;
- forwarding the payment data to a payment validation system;
- retrieving data from the data supplier;
- writing the retrieved data into the data carrier;
- receiving at least one access rule from the data supplier; and
- writing the at least one access rule into the data carrier, the at least one access rule specifying at least one condition for accessing the retrieved data written into the data carrier, the at least one condition being dependent upon the amount of payment associated with the payment data forwarded to the payment validation system.

Id. at 28:5–20.

ANALYSIS

A. Claim Construction

Consistent with the statute and the legislative history of the AIA,⁵ the Board interprets claim terms in an unexpired patent according to the broadest reasonable construction in light of the specification of the patent in which they appear. *See In re Cuozzo Speed Techs., LLC*, 793 F.3d 1268, 1278–79 (Fed. Cir. 2015), *cert. granted sub nom. Cuozzo Speed Techs., LLC*

⁵ Leahy-Smith America Invents Act, Pub. L. No. 112–29, 125 Stat. 284 (2011) (“AIA”).

v. Lee, 136 S. Ct. 890 (mem.) (2016); 37 C.F.R. § 42.100(b). Under that standard, and absent any special definitions, we give claim terms their ordinary and customary meaning, as would be understood by one of ordinary skill in the art at the time of the invention. *See In re Translogic Tech., Inc.*, 504 F.3d 1249, 1257 (Fed. Cir. 2007). Any special definitions for claim terms must be set forth with reasonable clarity, deliberateness, and precision. *See In re Paulsen*, 30 F.3d 1475, 1480 (Fed. Cir. 1994).

For purposes of this Decision, we do not need to expressly construe any claim term.

B. Statutory Subject Matter

Petitioner challenges claims 13 and 14 as directed to patent-ineligible subject matter under 35 U.S.C. § 101. Pet. 22–37. According to Petitioner, claims 13 and 14 are directed to an abstract idea without additional elements that transform the claim into a patent-eligible application of that idea. *Id.* Petitioner submits a declaration from Jeffrey A. Bloom, Ph.D. (“Bloom Declaration”) in support of its Petition.⁶ Ex. 1003. Smartflash argues that claims 13 and 14 are directed to statutory subject matter because they are “rooted in computer technology in order to overcome a problem specifically arising in the realm of computer networks—that of digital data piracy.” PO Resp. 13.

⁶ In its Response, Smartflash argues that the Bloom Declaration should be given little or no weight. PO Resp. 3–6. Because Smartflash has filed a Motion to Exclude that includes a request to exclude Dr. Bloom’s Declaration in its entirety, or in the alternative, portions of the declaration based on essentially the same argument, we address Smartflash’s argument as part of our analysis of the motion to exclude, below.

1. *Abstract Idea*

Under 35 U.S.C. § 101, we must first identify whether an invention fits within one of the four statutorily provided categories of patent-eligibility: “processes, machines, manufactures, and compositions of matter.” *Ultramercial, Inc. v. Hulu, LLC*, 772 F.3d 709, 713–714 (Fed. Cir. 2014). Here, claim 13 recites a “machine,” e.g., a “data access terminal,” and claim 14 recites a “process,” e.g., a “method of providing data” under § 101. Section 101, however, “contains an important implicit exception [to subject matter eligibility]: Laws of nature, natural phenomena, and abstract ideas are not patentable.” *Alice Corp. Pty. Ltd. v. CLS Bank Int’l.*, 134 S. Ct. 2347, 2354 (2014) (citing *Assoc. for Molecular Pathology v. Myriad Genetics, Inc.*, 133 S. Ct. 2107, 2116 (2013) (internal quotation marks and brackets omitted)). In *Alice*, the Supreme Court reiterated the framework set forth previously in *Mayo Collaborative Services v. Prometheus Laboratories, Inc.*, 132 S. Ct. 1289, 1293 (2012) “for distinguishing patents that claim laws of nature, natural phenomena, and abstract ideas from those that claim patent-eligible applications of those concepts.” *Alice*, 134 S. Ct. at 2355. The first step in the analysis is to “determine whether the claims at issue are directed to one of those patent-ineligible concepts.” *Id.*

According to the Federal Circuit, “determining whether the section 101 exception for abstract ideas applies involves distinguishing between patents that *claim the building blocks of human ingenuity*—and therefore risk broad pre-emption of basic ideas—and patents that integrate those building blocks into something more, enough to transform them into specific patent-eligible inventions.” *Versata Dev. Grp., Inc. v. SAP Am., Inc.*, 793 F.3d 1306, 1332 (Fed. Cir. 2015) (emphasis added); *accord id.* at 1333–34

(“It is a *building block*, a *basic conceptual framework* for organizing information” (emphasis added)). This is similar to the Supreme Court’s formulation in *Bilski v. Kappos*, 561 U.S. 593, 611 (2010) (emphasis added), noting that the concept of risk hedging is “a *fundamental economic practice* long prevalent in our system of commerce.” *See also buySAFE, Inc. v. Google, Inc.*, 765 F.3d 1350, 1353–54 (Fed. Cir. 2014) (stating that patent claims related to “long-familiar commercial transactions” and relationships (i.e., business methods), no matter how “narrow” or “particular,” are directed to abstract ideas as a matter of law). As a further example, the “concept of ‘offer based pricing’ is similar to other ‘fundamental economic concepts’ found to be abstract ideas by the Supreme Court and [the Federal Circuit].” *OIP Tech., Inc. v. Amazon.com, Inc.*, 788 F.3d 1359, 1362 (Fed. Cir. 2015) (citations omitted).

Petitioner argues that claims 13 and 14 are directed to the abstract idea of “licensing/regulating access to copyrighted content.” Pet. 24. Although Smartflash does not concede, in its brief, that claims 13 and 14 are directed to an abstract idea, it does not persuasively explain how the challenged claims escape being classified as abstract. PO Resp. 11–24; *see also* Paper 46 (transcript of oral hearing), 17:9–14 (Smartflash stating that “even if Patent Owner says nothing about [abstract idea], it is still the Petitioner’s burden to prove that the claims are directed to an abstract idea.”).

We are persuaded that claims 13 and 14 are drawn to an abstract idea. Specifically, claims 13 and 14 are directed to performing the fundamental economic practice of conditioning and controlling access to content based on payment. For example, claim 3, from which claim 13 depends, and claim 14 recite “the at least one access rule specifying at least one condition for

accessing the retrieved data written into the data carrier, the at least one condition being dependent upon the amount of payment associated with the payment data forwarded to the payment validation system.” Furthermore, as discussed above, the ’720 patent discusses addressing recording industry concerns of data pirates offering unauthorized access to widely available compressed audio recordings. Ex. 1001, 1:15–55. The patent specification explains that these pirates obtain data either by unauthorized or legitimate means and then make the data available over the Internet without authorization. *Id.* The specification further explains that once data has been published on the Internet, it is difficult to police access to and use of it by Internet users who may not even realize that it is pirated. *Id.* The ’720 patent proposes to solve this problem by restricting access to data on a portable data carrier based upon payment validation. *Id.* at 1:46–2:3. The ’720 patent makes clear that the crux of the claimed subject matter is restricting access to stored data based on supplier-defined access rules and validation of payment. *Id.*

Although the specification refers to data piracy on the Internet, claims 13 and 14 are not limited to the Internet. Claim 3, from which claim 13 depends, recites code to “read payment data from the data carrier,” “forward the payment data to a payment validation system,” “receive payment validation data from the payment validation system,” “retrieve data from the data supplier,” “write the retrieved data into the data carrier,” and

responsive to the payment validation data to receive at least one access rule . . . write the at least one access rule into the data carrier, the at least one access rule specifying at least one condition . . . the at least one condition being dependent upon the amount of payment associated with the payment data forwarded to the payment validation system.

Claim 14, a method claim, recites similar limitations. The underlying concept of claims 13 and 14, particularly when viewed in light of the '720 patent specification, is conditioning and controlling access to content based upon payment. This is a fundamental economic practice long in existence in commerce. *See Bilski*, 561 U.S. at 611.

We are, thus, persuaded, based on the '720 patent specification and the claim language, that each of claims 13 and 14 is directed to an abstract idea. *See Alice*, 134 S. Ct. at 2356 (holding that the concept of intermediated settlement at issue in *Alice* was an abstract idea); *Accenture Global Servs., GmbH v. Guidewire Software, Inc.*, 728 F.3d 1336, 1344 (Fed. Cir. 2013) (holding the abstract idea at the heart of a system claim to be “generating tasks [based on] rules . . . to be completed upon the occurrence of an event”).

2. *Inventive Concept*

“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 (quoting *Mayo*, 132 S. Ct. at 1297). “This requires more than simply stating an abstract idea while adding the words ‘apply it’ or ‘apply it with a computer.’ Similarly, the prohibition on patenting an ineligible concept cannot be circumvented by limiting the use of an ineligible concept to a particular technological environment.” *Versata*, 793 F.3d at 1332 (citations omitted). Moreover, the mere recitation of generic computer components performing conventional functions is not enough. *See Alice*, 134 S. Ct. at 2360 (“Nearly every computer will include a ‘communications controller’ and ‘data storage unit’

capable of performing the basic calculation, storage, and transmission functions required by the method claims.”).

Petitioner argues “[t]he claims of the ’720 patent . . . cover nothing more than the basic financial idea of enabling limited use of paid for and/or licensed content using ‘conventional’ computer systems and components.” Reply 11 (quoting Ex. 1003 ¶ 126). Petitioner persuades us that claims 13 and 14 the ’720 patent do not add an inventive concept sufficient to ensure that the claims in practice amount to significantly more than claims on the abstract idea itself. *Alice*, 134 S. Ct. at 2355; *see also Accenture Global Servs.*, 728 F.3d at 1344 (holding claims directed to the abstract idea of “generating tasks [based on] rules . . . to be completed upon the occurrence of an event” to be unpatentable even when applied in a computer environment and within the insurance industry). Specifically, we agree with and adopt Petitioner’s rationale that the additional elements of claims 13 and 14 are generic features of a computer that do not bring these claims within § 101 patent eligibility. Pet. 24–31; Reply 11–21.

a. Technical Elements

Petitioner argues that claims 13 and 14 are unpatentable because these claims are directed to an abstract idea and any recited technical elements are repeatedly described by the ’720 patent itself as “both ‘conventional’ and as being used ‘in a conventional manner.’” Pet. 24 (citing Ex. 1001, 3:64–55, 16:63–65, 21:59–60). Smartflash disagrees, arguing that claims 13 and 14 are patentable because these claims “recite specific ways of using distinct memories, data types, and use rules that amount to significantly more than the underlying abstract idea.” PO Resp. 17 (quoting Ex. 2049, 19). We agree with Petitioner for the following reasons.

The '720 patent specification treats as well-known and conventional all potentially technical aspects of claims 13 and 14, including the “data access terminal” (recited in the preambles of claims 3 and 13), “data supplier,” “data carrier,” and “payment validation system.” See Reply 13 (citing Ex. 1003 ¶ 24; Ex. 1001, 3:64–65, 16:62–65, 18:24–30). For example, as Petitioner contends, the specification states the recited “data access terminal may be a conventional computer,” that the terminal memory “can comprise any conventional storage device,” and that a “data access device . . . such as a portable audio/video player . . . comprises a conventional dedicated computer system including a processor . . . program memory . . . and timing and control logic . . . coupled by a data and communications bus.” *Id.* (quoting Ex. 1001, 4:4–5, 16:46–50, 18:7–11). In addition, the specification notes that the “data carrier” may be a generic device such as a “standard smart card.” Ex. 1001, 11:36–39; *see also id.* at 14:38–42 (“Likewise data stores 136, 138 and 140 may comprise a single physical data store or may be distributed over a plurality of physical devices and may even be at physically remote locations from processors 128-134 and coupled to these processors via internet 142.”), Fig. 6. The specification further indicates that the “payment validation system” may be “a signature transporting type e-payment system” or “a third party e-payment system.” *Id.* at 7:12–17, 13:46–48 (“an e-payment system according to, for example, MONDEX, Proton, and/or Visa cash compliant standards”). Further, the claimed computer code in claim 13 and the method of claim 14 perform generic computer functions, such as reading, forwarding, receiving, retrieving and writing. See Pet. 24–30; Reply 14–16. The recitation of these generic computer functions is insufficient to confer specificity. See *Content*

Extraction and Transmission LLC v. Wells Fargo Bank, Nat’l Assoc., 776 F.3d 1343, 1347 (Fed. Cir. 2014) (“The concept of data collection, recognition, and storage is undisputedly well-known. Indeed, humans have always performed these functions.”).

Moreover, we are not persuaded that claims 13 and 14 “recite specific ways of using distinct memories, data types, and use rules that amount to significantly more than” conditioning and controlling access to content based on payment. See PO Resp. 20. Claims 13 and 14 do not recite any particular or “distinct memories.” To the extent Smartflash contends that the claimed “data carrier” is a “distinct memory,” as noted above, the specification makes clear that the “data carrier” may be a generic device such as a “standard smart card.” See *Content Extraction*, 776 F.3d at 1347 (“The concept of data collection, recognition, and storage is undisputedly well-known. Indeed, humans have always performed these functions.”). The recitation of generic memory, being used to store data in the conventional manner, is insufficient to confer the specificity required to elevate the nature of the claim into a patent-eligible application.

Claims 13 and 14 also recite several generic and conventional data types including “data,” “retrieved data,” “code,” “payment data,” “payment validation data,” and “access rule.” We are not persuaded that the recitation of these data types, by itself, amounts to significantly more than the underlying abstract idea. *Alice*, 134 S. Ct. at 2355 (quoting *Mayo*, 132 S. Ct. at 1294) (“We have described step two of this analysis as a search for an ‘inventive concept’—i.e., an element or combination of elements that is ‘sufficient to ensure that the patent in practice amounts to significantly more than a patent upon the [ineligible concept] itself.’”) (brackets in original).

Smartflash does not point to any inventive concept in the '720 patent related to the way the recited data types are constructed or used. In fact, the '720 patent simply recites these data types with no description of the underlying implementation or programming that results in these data constructs.

In addition, because the recited elements can be implemented on a general purpose computer, claims 13 and 14 do not cover a “particular machine.” Pet. 33–35; see *Bilski*, 561 U.S. at 604–05 (stating that machine-or-transformation test remains “a useful and important clue” for determining whether an invention is patent eligible). And claims 13 and 14 do not transform an article into a different state or thing. Pet. 36–37.

Thus, we determine the potentially technical elements of claims 13 and 14 are nothing more than “generic computer implementations” and perform functions that are “purely conventional.” *Alice*, 134 S. Ct. at 2358–59; *Mayo*, 132 S. Ct. at 1294.

b. DDR Holdings

Relying on the Federal Circuit’s decision in *DDR Holdings*, Smartflash asserts that claims 13 and 14 are directed to statutory subject matter because the claims are “rooted in computer technology in order to overcome a problem specifically arising in the realm of computer networks.” PO Resp. 13 (citing *DDR Holdings, LLC v. Hotels.com, L.P.*, 773 F.3d 1245, 1257 (Fed. Cir. 2014)). Smartflash contends that claims 13 and 14 are “directed to particular devices that can download and store digital content into a data carrier” and “[b]y using a system that combines on the data carrier both the digital content and payment data that can be forwarded to a payment validation system, and by responding to payment validation data when obtaining digital content, the claimed data access terminals enable

digital content to be obtained effectively and legitimately.” *Id.* at 12–13. Smartflash further argues that because each of claims 13 and 14 “utilizes at least one access rule, also written to the data carrier,” “access control to the digital content can be enforced prior to access to the digital content and allowing subsequent use (e.g., playback) of the digital content to be portable and disconnected.” *Id.* at 13.

Petitioner responds that claims 13 and 14 are distinguishable from the claims in *DDR Holdings*. Reply 18–21. The *DDR Holdings* patent is directed at retaining website visitors when clicking on an advertisement hyperlink within a host website. 773 F.3d at 1257. Conventionally, clicking on an advertisement hyperlink would transport a visitor from the host’s website to a third party website. *Id.* The Federal Circuit distinguished this Internet-centric problem over “the ‘brick and mortar’ context” because “[t]here is . . . no possibility that by walking up to [a kiosk in a warehouse store], the customer will be suddenly and completely transported outside the warehouse store and relocated to a separate physical venue associated with the third party.” *Id.* at 1258. The Federal Circuit further determined that the *DDR Holdings* 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.” *Id.* The unconventional result in *DDR Holdings* is the website visitor is retained on the host website, but is still is able to purchase a product from a third-party merchant. *Id.* at 1257–58. The limitation referred to by the Federal Circuit in *DDR Holdings* recites “using the data retrieved, automatically generate and transmit to the web browser a second web page that displays: (A) information associated with the commerce object

associated with the link that has been activated, and (B) the plurality of visually perceptible elements visually corresponding to the source page.” *Id.* at 1250. Importantly, the Federal Circuit identified this limitation as differentiating the *DDR Holdings* claims from those held to be unpatentable in *Ulramercial*, which “broadly and generically claim ‘use of the Internet’ to perform an abstract business practice (with insignificant added activity).” *Id.* at 1258.

We agree with Petitioner that claims 13 and 14 are distinguishable from the claims at issue in *DDR Holdings*. As an initial matter, we are not persuaded by Smartflash’s argument that claims 13 and 14 are “rooted in computer technology in order to overcome a problem specifically arising in the realm of computer networks—that of digital data piracy” and “address . . . a challenge particular to the Internet.” PO Resp. 13 (quoting *DDR Holdings*, 773 F.3d at 1257). Data piracy exists in contexts other than the Internet. See Reply 17–18 (identifying other contexts in which data piracy is a problem). For example, data piracy was a problem with compact discs. See Ex. 1001, 5:4–7 (“[W]here the data carrier stores . . . music, the purchase outright option may be equivalent to the purchase of a compact disc (CD), preferably with some form of content copy protection such as digital watermarking.”). Further, whatever the problem, the solutions provided by claims 13 and 14 are not rooted in specific computer technology, but are based on conditioning and controlling access to content only when payment is validated. See Reply 15–16.

Even accepting Smartflash’s assertion that claims 13 and 14 address data piracy on the Internet (PO Resp. 13), we are not persuaded that the claims do so by achieving a result that overrides the routine and

conventional use of the recited devices and functions. In fact, the differences between claims 13 and 14 and the claims at issue in *DDR Holdings* are made clear by Smartflash in its table mapping claim 13 of the '720 patent to claim 19 of the patent at issue in *DDR Holdings*. PO Resp. 14–17. For example, Smartflash compares the limitation highlighted by the Federal Circuit in *DDR Holdings* with 2 limitations recited by claim 13: “code responsive to the payment validation data . . . to write the retrieved data in the data carrier,” and “code responsive to the payment validation data to receive at least one access rule from the data supplier and to write the at least one access rule into the data carrier, the at least one access rule specifying at least one condition for accessing the retrieved data written into the data carrier, the at least one condition being dependent upon the amount of payment associated with the payment data forwarded to the payment validations system.” PO Resp. 16–17. Smartflash, however, fails to identify how these limitations of claim 13, like the corresponding *DDR Holdings* limitation, do not “adher[e] to the routine, conventional functioning” of the technology being used. PO Resp. 13–24; *DDR Holdings*, 773 F.3d at 1258. Instead, unlike the claims in *DDR Holdings*, these limitations, like all the other limitations of claim 13, are “specified at a high level of generality,” which the Federal Circuit has found to be “insufficient to supply an ‘inventive concept.’” *Ultramercial*, 772 F.3d at 716. The limitations of the challenged claims merely rely on conventional devices and computer processes operating in their “normal, expected manner.” *OIP Techs.*, 788 F.3d at 1363 (citing *DDR Holdings*, 773 F.3d at 1258–59).

The claims at issue in *Ultramercial*, like claims 13 and 14, were also directed to a method for distributing media products. Instead of

conditioning and controlling access to data based on payment, as in claims 13 and 14, the *Ultramercial* claims condition and control access based on viewing an advertisement. 772 F.3d at 712. Similar to the claims in *Ultramercial*, the majority of limitations in claims 13 and 14 comprise this abstract concept of conditioning and controlling access to data. *See id.* at 715. Adding routine additional steps such as communicating with the data supplier, reading payment data, forwarding payment data, receiving payment validation data, retrieving data from the data supplier, and writing data to a data carrier does not transform an otherwise abstract idea into patent-eligible subject matter. *See id.* at 716 (“Adding routine additional steps such as updating an activity log, requiring a request from the consumer to view the ad, restrictions on public access, and use of the Internet does not transform an otherwise abstract idea into patent-eligible subject matter.”).

We are, therefore, persuaded that claims 13 and 14 are closer to the claims at issue in *Ultramercial* than to those at issue in *DDR Holdings*.

c. Smartflash’s Alleged Inventive Concept

To the extent Smartflash argues claims 13 and 14 include an “inventive concept” because of the specific combination of elements in these claims, we disagree. Specifically, Smartflash refers to the following disclosure from the ’720 patent specification: “[b]y combining digital rights management with content data storage using a single carrier, the stored content data becomes mobile and can be accessed anywhere while retaining control over the stored data for the data content provider or data copyright owner.” PO Resp. 8 (quoting Ex. 1001, 5:25–29). Referring to this disclosure, Smartflash argues that “[b]y using a system that combines on the data carrier both the digital content and the at least one access rule, access

control to the digital content can be enforced prior to access to the digital content.” *Id.* at 9. Thus, Smartflash concludes that “[b]y comparison, unlike a system that uses at least one access rule as claimed, when a DVD was physically rented for a rental period, the renter could continue to play the DVD, even if the renter kept the DVD past the rental period because the use rules were not associated with the DVD” and “there was no way to track a use of the DVD such that a system could limit its playback to [a] specific number of times (e.g. three times) or determine that the DVD had only been partially used.” *Id.*

The concept of storing two different types of information in the same place or on the same device is an age old practice. For example, storing names and phone numbers (two different types of information) in the same place, such as a book, or on a storage device, such as a memory device was known. That Smartflash alleges two specific types of information—content and the conditions for providing access to the content—are stored in the same place or on the same storage device does not alter our determination. The concept was known and conventional, and Smartflash has not persuaded us that applying the concept to these two specific types of information results in the claim reciting an inventive concept. Furthermore, the prior art discloses products that could store both content and conditions for providing access to the content. *See, e.g.*, Pet. 42 (citing Ex. 1004, Abstract (describing a transportable unit storing both content and a control processor for controller access to that content)); Pet 66 (citing Ex. 1005, 18:9–16 (“Defining usage rights in terms of a language *in combination with* the hierarchical representation of a digital work enables the support of a wide variety of distribution and fee schemes. An example is the ability to attach

multiple versions of a right to a work. So a creator may attach a PRINT right to make 5 copies for \$10.00 and a PRINT right to make unlimited copies for \$100.00. A purchaser may then choose which option best fits his needs.” (emphasis added))). To the extent Smartflash argues that claims 13 and 14 cover storing, on the same device, both content and a *particular* type of condition for providing access to content or information necessary to apply that condition (e.g., “track[ing] a use of the DVD such that a system could limit its playback to specific number of times” (PO Resp. 9) (emphasis added))), we do not agree that this, by itself, is sufficient to elevate claims 13 and 14 to patent-eligible subject matter. Because the concept of combining the content and conditions for providing access to the content on the same device was known, claiming a particular type of condition does not make the claim patent eligible under § 101.

d. Preemption

Petitioner argues that claims 13 and 14 recite an abstract idea that “preempts all effective uses of the abstract idea of licesing and regulationg access to copyrighted content.” Pet. 31. Smartflash responds that claims 13 and 14 do not result in inappropriate preemption. PO Resp. 22–32. According to Smartflash, claims 13 and 14 do not attempt to preempt every application of the idea, but rather recite a ““specific way . . . that incorporates elements from multiple sources in order to solve a problem faced by [servers] on the Internet.”” *Id.* at 22 (quoting *DDR Holdings*, 773 F.3d at 1259). Smartflash also asserts that the existence of a large number of non-infringing alternatives shows that claims 13 and 14 do not raise preemption concerns. *Id.* at 27–32.

Smartflash’s preemption argument does not alter our § 101 analysis. The Supreme Court has described the “pre-emption concern” as “undergird[ing] [its] § 101 jurisprudence.” *Alice*, 134 S. Ct. at 2358. The concern “is a *relative* one: how much future innovation is foreclosed relative to the contribution of the inventor.” *Mayo*, 132 S. Ct. at 1303. “While preemption may signal patent ineligible subject matter, the absence of complete preemption does not demonstrate patent eligibility.” *Ariosa Diagnostics, Inc. v. Sequenom, Inc.*, 788 F.3d 1371, 1379 (Fed. Cir. 2015). Importantly, the preemption concern is addressed by the two part test considered above. *See id.* After all, every patent “forecloses . . . future invention” to some extent, *Mayo*, 132 S. Ct. at 1292, and, conversely, every claim limitation beyond those that recite the abstract idea limits the scope of the preemption. *See Ariosa*, 788 F.3d at 1379 (“The Supreme Court has made clear that the principle of preemption is the basis for the judicial exception to patentability. . . . For this reason, questions on preemption are inherent in and resolved by the § 101 analysis.”).

The two-part test elucidated in *Alice* and *Mayo* does not require us to anticipate the number, feasibility, or adequacy of non-infringing alternatives to gauge a patented invention’s preemptive effect in order to determine whether a claim is patent-eligible under § 101. *See* Reply 21–24 (arguing that Smartflash’s position regarding non-infringement and existence of non-infringing alternatives to the challenged claim is immaterial to the patent eligibility inquiry).

The relevant precedents simply direct us to ask whether the claim involves one of the patent-ineligible categories, and, if so, whether additional limitations contain an “inventive concept” that is “sufficient to

ensure that the claim in practice amounts to ‘significantly more’ than a patent on an ineligible concept.” *DDR Holdings*, 773 F.3d at 1255. This is the basis for the rule that the unpatentability of abstract ideas “cannot be circumvented by attempting to limit the use of the formula to a particular technological environment,” despite the fact that doing so reduces the amount of innovation that would be preempted. *Diamond v. Diehr*, 450 U.S. 175, 191 (1981); *see also Alice*, 134 S. Ct. at 2358; *Mayo*, 132 S. Ct. at 1303; *Bilski*, 561 U.S. at 612; *Parker v. Flook*, 437 U.S. 584, 593 (1978). The Federal Circuit spelled this out, stating that “[w]here a patent’s claims are deemed only to disclose patent ineligible subject matter under the *Mayo* framework, as they are in this case, preemption concerns are fully addressed and made moot.” *Ariosa*, 788 F.3d at 1379.

As described above, after applying this two-part test, we are persuaded that Petitioner has shown by a preponderance of the evidence that claims 13 and 14 are drawn to an abstract idea and do not add an inventive concept sufficient to ensure that the claims in practice amount to significantly more than a claim on the abstract idea itself. The alleged existence of a large number of non-infringing, and, thus, non-preemptive alternatives does not alter this conclusion because the question of preemption is inherent in, and resolved by, this inquiry.

e. Smartflash’s Remaining Arguments

Smartflash also asserts that (1) Petitioner has already lost a Motion for Summary Judgment of Invalidity under § 101 in its related district court litigation with Smartflash (PO Resp. 34); and (2) the Office is estopped from revisiting the issue of § 101, which was inherently reviewed during examination (*id.* at 35).

Smartflash does not provide any authority that precludes us from deciding the issue of patent eligibility under § 101 in the context of the present AIA proceeding, even where a non-final district court ruling on §101 exists. *See Fresenius USA, Inc. v. Baxter Int’l, Inc.*, 721 F.3d 1330, 1340–42 (Fed. Cir. 2013). Moreover, Smartflash does not provide any authority for its assertion that “[t]he question of whether the claims are directed to statutory subject matter has already been adjudicated by the USPTO, and the USPTO is estopped from allowing the issue to be raised in the present proceeding.” PO Resp. 35.

3. Conclusion

For the foregoing reasons, we are persuaded that Petitioner has established, by a preponderance of the evidence, that claims 13 and 14 of the ’720 patent are unpatentable under § 101.

MOTIONS TO EXCLUDE

A. Petitioner’s Motion to Exclude

Petitioner seeks to exclude portions of Exhibits 2056 and 2057, the cross-examination testimony of Dr. Jeffrey Bloom as submitted by Smartflash. Paper 37⁷, 3–4. As movant, Petitioner has the burden of proof to establish that it is entitled to the requested relief. *See* 37 C.F.R. § 42.20(c). For the reasons stated below, Petitioner’s Motion to Exclude is *denied*.

Petitioner seeks to exclude Dr. Bloom’s cross-examination testimony recorded in Exhibit 2056 at 179:1–20 and in Exhibit 2057 at 193:17–194:8 and 195:5–16 as (1) irrelevant under Federal Rules of Evidence (“FRE”) 401

⁷ We refer to the redacted “public” version of the Motion to Exclude.

and 402 (Paper 37, 4–6) and (2) outside the scope of direct examination under FRE 611(b) (*id.* at 7–8). Petitioner argues that this testimony, all directed to the workings of a product offered by Dr. Bloom’s employer, is “unrelated to the instant CBM proceeding” and “is of no consequence to the validity of the patent claims at issue.” *Id.* at 4. Petitioner adds that “Samsung, during its direct examination of Dr. Bloom, never opened [the] door to such questions.” *Id.* at 8.

We are not persuaded by Petitioner’s argument. Smartflash proffered this particular testimony not for purposes of showing validity of the patent claim at issue, but for purposes of challenging the credibility of Petitioner’s expert. Although we were not persuaded by this evidence, we did consider it for the purpose of deciding an issue of credibility. We, therefore, decline to exclude this testimony under FRE 401, 402, or 611(b).

In addition, Petitioner seeks to exclude the excerpts of testimony from Exhibit 2057 (193:17–194:8 and 195:5–16) as lacking proper foundation under FRE 701 and 702. *Id.* at 6–7. Petitioner argues that in these excerpts, Smartflash attempted to solicit testimonies from Dr. Bloom regarding a particular product and that Smartflash “further asserted that . . . ‘Dr. Bloom refused to testify about its operation alleging the information was confidential.’” *Id.* at 6 (quoting PO Resp. 6). According to Petitioner, because “Dr. Bloom *has not* been advanced as an expert with regard to subscription-based business practice of a third-party company” and “no foundation has been laid with regard to Dr. Bloom’s personal knowledge of such subscription-based business practice,” this testimony should be excluded under FRE 701 and 702. *Id.* at 6–7.

We also are not persuaded by this argument. Petitioner does not explain, for example, why Rules 701 and 702 apply to the excerpts at issue. It is unclear that Dr. Bloom was being asked for his opinion, either expert or otherwise, with these questions. Instead, it appears that he was being questioned as a fact witness. Moreover, as explained by Petitioner, the cross-examination did not actually elicit *any* substantive responses, let alone opinion, from Dr. Bloom. *Id.* at 6. We, therefore, decline to exclude this testimony under FRE 701 or 702.

B. Smartflash's Motion to Exclude

Smartflash seeks to exclude Exhibits 1003, 1004, 1005, 1006, and 1028. Paper 33, 1. As movant, Smartflash has the burden of proof to establish that it is entitled to the requested relief. *See* 37 C.F.R. § 42.20(c). For the reasons stated below, Smartflash's Motion to Exclude is *denied*.

1. Exhibit 1003

Smartflash seeks to exclude the entirety of Dr. Bloom's testimony in Exhibit 1003 and additionally seeks to exclude specific paragraphs under various Board and Evidentiary rules. Paper 33, 1–10. First, Smartflash seeks to exclude Exhibit 1003 in its entirety as not disclosing the underlying facts or data on which the opinions contains are based as required by 37 C.F.R. § 42.54(a). *Id.* at 2. According to Smartflash, this is because Dr. Bloom's Declaration "does not state the relative evidentiary weight (e.g., substantial evidence versus preponderance of the evidence) used by Dr. Bloom in arriving at his conclusions." *Id.* Smartflash also seeks to exclude this testimony under FRE 702 because "the Board cannot assess under FRE 702 whether Dr. Bloom's opinion testimony is 'based on sufficient facts or data,' is 'the product of reliable principles and methods,' or if Dr. Bloom

‘reliably applied the principles and methods to the facts of the case.’” *Id.* at 3–4.

Petitioner counters that consistent with the requirements of 37 C.F.R. §§ 42.64(a) and 42.65, “Dr. Bloom’s testimony disclosed underlying facts and data on which his opinions were based.” Paper 39, 4. Petitioner also argues that experts are not required to recite the “preponderance of the evidence” standard expressly. *Id.* at 3–4 (citing IPR2013-00172, Paper 50 at 42). With respect to FRE 702, Petitioner notes that Smartflash did not rely on FRE 702 to object to Dr. Bloom’s Declaration in its entirety and has, thus, waived this particular argument. *Id.* at 5. Moreover, Petitioner asserts that although Smartflash had the opportunity to cross-examine Dr. Bloom, it failed to question him as to any reliable principles and methods that he used to render his opinion. *Id.* at 4–5.

We are not persuaded by Smartflash’s arguments. Dr. Bloom has a Bachelor in Electrical Engineering and a Masters and Ph.D. in Electrical and Computer Engineering. Ex. 1003 ¶¶ 15–17. He also has decades of experience in relevant technologies. *Id.* at ¶¶ 5–14. We are, therefore, not persuaded by Smartflash’s argument that he has not provided sufficient proof that he is an expert. And as Petitioner correctly points out, an expert is not required to recite the “preponderance of the evidence” standard expressly in order for the expert testimony to be accorded weight, much less admissibility. Accordingly, we decline to exclude this testimony under FRE 702.

Smartflash also seeks to exclude paragraphs 23–112 of Exhibit 1003 as irrelevant and inadmissible under FRE 401 and 402 because they address grounds challenging the claims that were not instituted upon by the Board.

Paper 33, 5–6. Because these paragraphs also support Petitioner’s assertions with respect to the underlying factual issues related to patent eligibility, we are not persuaded that they are irrelevant under FRE 401 and 402.

Accordingly, we decline to exclude these paragraphs.

Smartflash also seeks to exclude paragraphs 23–26 and 113–128 of Exhibit 1003 as lacking foundation and providing legal opinions on which the lay witness is not competent to testify. *Id.* at 6. According to Smartflash, these paragraphs “relate to the strictly legal issue of statutory subject matter under § 101, an issue for which Dr. Bloom is not an expert” and should be excluded under FRE 401 and 402 as not relevant, under FRE 602 as lacking foundation, and FRE 701 and 702 as providing legal opinions on which the lay witness is not competent to testify. *Id.* Because these paragraphs relate to the underlying factual issues related to patent eligibility, we are not persuaded that they are irrelevant under FRE 401 and 402. As discussed above, Smartflash has not persuaded us that Dr. Bloom provides insufficient factual basis for his opinions, and thus, we are not persuaded that these paragraphs should be excluded under FRE 602. We also are persuaded that Dr. Bloom is not giving expert testimony about the law, but simply indicating his understanding of the law as background foundation for the declaration. *See* Ex. 1003 ¶ 115. Thus, we are not persuaded that these paragraphs should be excluded under FRE 701 and 702. Accordingly, we decline to exclude these paragraphs.

Smartflash also seeks to exclude paragraphs 129–137 of Exhibit 1003 under 37 C.F.R. § 42.65(a) as impermissibly relating to legal concepts. Paper 33, 7. We understand that in these paragraphs, Dr. Bloom is not giving expert testimony about the law, but simply indicating his

understanding of the law as background foundation for the declaration. *See* Ex. 1003 ¶ 129. As such, we decline to exclude these paragraphs.

Smartflash also seeks to exclude paragraphs 102–107, 122, 123, 125, and 128 of Exhibit 1003 as inadmissible hearsay under FRE 801 and 802. Paper 33, 7–9. Petitioner responds to these objections by filing, as supplemental evidence, supporting documents comprising the underlying publications referred to by Dr. Bloom in these paragraphs. Paper 39, 9–11 (citing Ex. 1043). Smartflash does not appear to object to the contents of this evidence, but merely the form in which it was filed—that each individual document was not filed as a separate exhibit, that the individual documents were not numbered sequentially, and that they were not filed with the first document in which each is cited. Paper 42, 4–5. To the extent that Exhibit 1043 does not comply with §§ 42.6 or 42.63, we waive those deficiencies, which relate not to the ultimate substance of this issue, but to procedural formalities. Moreover, because Smartflash does not explain further why the actual contents of Exhibit 1043 do not overcome its hearsay objections, we decline to exclude these paragraphs under FRE 801 and 802. We also decline to exclude these paragraphs as irrelevant under FRE 401 and 402 because they relate to the underlying factual issues related to patent eligibility.

2. Exhibits 1004–1006

Smartflash seeks to exclude Exhibits 1004–1006 as irrelevant under FRE 401 and 402 because, while cited, they were not instituted upon by the Board. Paper 33, 10–11.

Petitioner counters that all of these exhibits “speak to the well-known and conventional aspects of ‘appl[ying] generic computer technology

towards the solution of a financial problem: enabling limited use of paid-for/licensed content”” and, thus, are relevant to the question of patent eligibility. Paper 39, 11–12.

Because these exhibits are evidence relied upon by Petitioner to support its assertions with respect to the underlying factual issues related to patent eligibility, we are not persuaded that they are irrelevant under FRE 401 and 402. Accordingly, we decline to exclude these exhibits.

3. Exhibit 1028

Smartflash seeks to exclude Exhibit 1028, cited by both the Petition and the Bloom Declaration, as irrelevant and inadmissible under FRE 401 and 402. Paper 33, 11–12. According to Smartflash, the document, which describes the planned establishment of credit facilities into retail establishments is not relevant to the technological solution embodied in the ’720 patent. *Id.*

Petitioner responds that Exhibit 1028 is “directed to well-known historic credit operations in support of Dr. Bloom’s observation that the ’720 Patent mimics such payment operations” and is, therefore, not irrelevant. Paper 39, 12.

Because Exhibit 1028 is relied upon by Petitioner to support its assertions with respect to the underlying factual issues related to patent eligibility, we are not persuaded that it is irrelevant under FRE 401 and 402.

We also decline to exclude Exhibit 1028 on authenticity grounds under FRE 901 (Paper 33, 12) because Petitioner submits a librarian declaration attesting to the authenticity of the downloaded copy (Paper 39, 12).

Accordingly, we decline to exclude Exhibit 1028.

ORDER

Accordingly, it is:

ORDERED that claims 13 and 14 of the '720 patent are determined to be *unpatentable*;

FURTHER ORDERED that Petitioner's motion to exclude is *denied*;

FURTHER ORDERED that Smartflash's motion to exclude is *denied*;
and

FURTHER ORDERED that, because this is a final written decision, parties to the proceeding seeking judicial review of the decision must comply with the notice and service requirements of 37 C.F.R. § 90.2.

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FOR PETITIONER SAMSUNG:

Walter Renner
Thomas Rozylowicz
FISH & RICHARDSON P.C.
axf@fr.com
CBM39843-0003CP1@fr.com

FOR PETITIONER APPLE:

J. Steven Baughman
Ching-Lee Fukuda
Megan F. Raymond
steven.baughman@ropesgray.com
Ching-Lee.Fukuda@ropesgray.com
megan.raymond@ropesgray.com

FOR PATENT OWNER:

Michael Casey
J. Scott Davidson
Wyane Helge
DAVIDSON BERQUIST JACKSON & GOWDEY, LLP
mcasey@dbjg.com
jsd@dbjg.com
whelge@dbjg.com
smartflash-cbm@dbjg.com
docket@dbjg.com