IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE

INTERNATIONAL BUSINESS MACHINES CORP., Plaintiff, v. ZYNGA INC., and CHARTBOOST, INC., Defendants.	Civil Action No. 22-590-GBW

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MEMORANDUM OPINION

November 23, 2022
Wilmington, Delaware

GREGORY B. WILLIAMS
UNITED STATES DISTRICT JUDGE

Plaintiff International Business Machines Corp. ("IBM") alleges that certain products of Defendant Zynga Inc. infringe United States Patent Nos. 7,072,849 (the "'849 patent"), 7,631,346 (the "'346 patent"), and 7,702,719 (the "'719 patent"), and certain products of Defendant Chartboost, Inc. infringe the '849 patent and United States Patent No. 8,315,904 (the "'904 patent"). D.I. 27 ¶ 15; *see also id.* ¶¶ 100–87. Defendants Zynga Inc. and Chartboost, Inc. (collectively, "Zynga") move to dismiss Count IV of IBM's First Amended Complaint (the "Motion"), which alleges infringement of the '904 patent, pursuant to Federal Rule of Civil Procedure 12(b)(6) for failure to state a claim upon which relief can be granted. D.I. 29. Zynga argues that none of the claims in the '904 patent claim patent-eligible subject matter under 35 U.S.C. § 101. *Id.* The Court heard oral argument on Zynga's Motion on November 15, 2022. D.I. 70. For the reasons stated below, the Court grants Zynga's Motion.

I. BACKGROUND

The '904 patent is entitled "Organization for Promotion Management." Promotions are "specific marketing communications that are typically provided in a marketing campaign." D.I. 27-1, Ex. C at 2:53-54. The '904 patent describes "[a] computer implemented method for producing a promotion list for a promotion management campaign . . . . The method includes assigning one or more promotion instances to the promotions list, and storing the promotion list in an electronic medium." *Id.* at Abstract. Prior to the '904 patent:

> [M]arketers used a top-down system in order to create and distribute promotions . . . . Marketers would create a small number of standardized promotions and query a database for potential customers with particular attributes to find a group of targets who would receive the promotions. Marketers could modify basic

> information by completing fields in the standardized promotions, much like completing a form when going to the doctor's office. In this one-way process of distributing promotions, information was only received from the consumers after the promotions were already sent . . . . [M]arketers could use "mail merge" functionality to insert the customer's name, email, physical address, and other characteristics into preset fields on preexisting promotions. Using the mail merge technique, marketers could create the impression of personalized advertising—as long as the number of promotions remained manageable.

D.I. 27 ¶¶ 55, 56.

IBM states there were several challenges with this one-way process of distributing promotions:

> ***First***, existing software systems could only create static promotions, limiting marketers to similar promotions, which were then sent to large groups of target consumers. Marketers were unable to dynamically tailor advertisements for individual consumers and instead had to focus on finding the widest appeal for a single advertisement. This approach was rudimentary and inefficient, because each promotion was both time consuming to create and dubiously relevant to the consumer. ***Second***, existing software systems were static and could not generate valuable analytics for improving current marketing campaigns. Prior art software could modify ***subsequent*** marketing campaigns. But it did not allow for dynamic modification of ***current*** promotions based on individual preferences or attributes. Marketers could only determine the general success of a marketing campaign after the campaign had already ended. ***Third***, existing software systems could not effectively create, select, organize, and distribute tailored promotions to a wide variety of consumers. Online advertising dramatically increased the number of potential consumers and promotions, which prior art systems were ill-equipped to handle. The prior art top-down system could either: (1) send more targeted promotions to smaller groups; or (2) send less targeted promotions to large groups. Both options encountered efficiency and efficacy issues, respectively.

D.I. 40 at 2 (citations omitted) (emphasis in original); *see also* D.I. 27-1, Ex. C at 1:6-19.

According to IBM, the '904 patent overcomes these challenges. It "improve[s] how promotions were generated and how they were subsequently managed, organized, and distributed." D.I. 27 ¶ 53. "[T]he '904 patent employ[s] data science techniques in computer software whereby dynamically adjustable promotion templates and promotion instances are used to generate, distribute, and track digital promotions with the help of robust data mining and analytics, thereby increasing the effectiveness of a promotion campaign." *Id.*

Promotions are created by using a "promotion template" with fields (known as "attributes") to create different versions of the promotion (known as "promotion instances"). D.I. 27-1, Ex. C at 3:65-4:21. The '904 patent also allows marketers to search a database of existing promotion instances and assign certain promotions to a "promotion list." *Id.* at 16:17-20; *see also* Fig. 17. "Marketers could [] manipulate the promotion instances in the promotion list as a unit." D.I. 30 at 2 (citing D.I. 27-1, Ex. C at 16:18-20).

Claim 1 of the '904 patent recites:

> A computer implemented method comprising:
>
> producing, by one or more computers, a promotion list for a promotion management campaign by:
>
> generating, by one or more computers, a promotion instance from a promotion template;
>
> receiving, by one or more computers executing marketing campaign software, a search query that includes one or more attributes of a promotion instance;
>
> searching one or more data repositories for promotion instances having attributes corresponding to the attributes specified in the search query;
>
> returning a list including one or more promotion instances having the attributes corresponding to the attributes specified in the search query;
>
> receiving, by the one or more computers, a selection of one or more promotion instances, from the returned list, to be included in the promotion list;
>
> assigning the selected promotion instances to the promotions list; and
>
> storing the promotion list in an electronic medium.

D.I. 27-1, Ex. C at claim 1.

II. LEGAL STANDARD

a. Motion to Dismiss

To state a claim on which relief can be granted, a complaint must contain "a short and plain statement of the claim showing that the pleader is entitled to relief . . . ." Fed. R. Civ. P. 8(a)(2). Such a claim must plausibly suggest "facts sufficient to 'draw the reasonable inference that the defendant is liable for the misconduct alleged.'" *Doe v. Princeton Univ.*, 30 F.4th 335, 342 (3d Cir. 2022) (quoting *Ashcroft v. Iqbal*, 556 U.S. 662, 678 (2009)) (citing *Bell Atl. Corp. v. Twombly*, 550 U.S. 544, 557 (2007)). "A claim is facially plausible 'when the plaintiff pleads factual content that allows the court to draw the reasonable inference that the defendant is liable for the misconduct alleged.'" *Klotz v. Celentano Stadtmauer & Walentowicz LLP*, 991 F.3d 458, 462 (3d Cir. 2021) (quoting *Iqbal*, 556 U.S. at 678). But the Court will "'disregard legal conclusions and recitals of the elements of a cause of action supported by mere conclusory statements.'" *Princeton Univ.*, 30 F.4th at 342 (quoting *Davis v. Wells Fargo*, 824 F.3d 333, 341 (3d Cir. 2016)). Under Rule 12(b)(6), the Court must accept as true all factual allegations in the Complaint and view those facts in the light most favorable to the plaintiff. *See Fed. Trade Comm'n v. AbbVie Inc*, 976 F.3d 327, 351 (3d Cir. 2020).

b. Patent Eligible Subject Matter

Patentability under 35 U.S.C. § 101 is a threshold legal issue. *Bilski v. Kappos*, 561 U.S. 593, 602 (2010). Section 101 inquiry is properly raised at the pleading stage if it is apparent from the face of the patent that the asserted claims are not directed to eligible subject matter. *Cleveland Clinic Found. v. True Health Diagnostics LLC*, 859 F.3d 1352, 1360 (Fed. Cir. 2017), *cert. denied*, 138 S. Ct. 2621 (2018); *see also SAP Am., Inc. v. InvestPic, LLC*, 898 F.3d 1161, 1166 (Fed. Cir. 2018) (stating that patent eligibility "may be, and frequently has been, resolved on a Rule 12(b)(6)

or (c) motion"); *FairWarning IP, LLC v. Iatric Sys., Inc.*, 839 F.3d 1089, 1097 (Fed. Cir. 2016) (stating that "it is possible and proper to determine patent eligibility under 35 U.S.C. § 101 on a Rule 12(b)(6) motion" (quoting *Genetic Techs. Ltd. v. Merial L.L.C.*, 818 F.3d 1369, 1373–74 (Fed. Cir. 2016))); *Voter Verified, Inc. v. Election Sys. & Software LLC*, 887 F.3d 1376, 1379 (Fed. Cir. 2018) (affirming Rule 12(b)(6) dismissal based on § 101 patent ineligibility). This is, however, appropriate "only when there are no factual allegations that, taken as true, prevent resolving the eligibility question as a matter of law." *Aatrix Software, Inc. v. Green Shades Software, Inc.*, 882 F.3d 1121, 1128 (Fed. Cir. 2018).

Section 101 of the Patent Act defines patent-eligible subject matter. It states, "[w]hoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title." 35 U.S.C. § 101. The Supreme Court has held that there are exceptions to § 101. "Laws of nature, natural phenomena, and abstract ideas are not patentable." *Alice Corp. Pty. v. CLS Bank Int'l*, 573 U.S. 208, 216 (2014) (internal quotation marks and citation omitted). "[I]n applying the § 101 exception, [the court] must distinguish between patents that claim the 'building blocks' of human ingenuity and those that integrate the building blocks into something more[] thereby 'transforming' them into a patent-eligible invention. The former 'would risk disproportionately tying up the use of the underlying' ideas, and are therefore ineligible for patent protection. The latter pose no comparable risk of pre-emption, and therefore remain eligible for the monopoly granted under our patent laws." *Id.* at 217 (cleaned up).

The Supreme Court's *Alice* decision established a two-step framework for determining patent-eligibility under § 101. In the first step, the court must determine whether the claims at issue are directed to a patent ineligible concept. *Id.* In other words, are the claims directed to a

law of nature, natural phenomenon, or abstract idea? *Id.* If the answer to the question is "no," then the patent is not invalid for teaching ineligible subject matter under § 101. If the answer to the question is "yes," then the court proceeds to step two, where it considers "the elements of each claim both individually and as an ordered combination" to determine if there is 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." *Id.* at 217–18 (alteration in original). "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]." *Id.* at 221 (internal quotation marks and citation omitted). Further, "the prohibition against patenting abstract ideas cannot be circumvented by attempting to limit the use of [the idea] to a particular technological environment." *Id.* at 222 (quoting *Bilski*, 561 U.S. at 610–11). Thus, "the mere recitation of a generic computer cannot transform a patent-ineligible abstract idea into a patent-eligible invention." *Id.* at 223.

III. DISCUSSION

a. Claim Construction

IBM argues, in part, that the "Court should defer deciding patent eligibility until summary judgment, after claim construction and expert discovery." D.I. 40 at 1. In the alternative, IBM identifies six claim terms it contends need construction. *Id.* at 6–7. IBM proposes the following constructions:

- "promotion template": an object with customizable attribute fields that the user can choose so as to produce other promotion templates, promotion instances, or promotion versions. (*See* '904 patent at Figs. 3-9; 2:13-14, 3:66-4:8, 4:24-26, 4:18-20, 7:9-11, 6:54-58, 7:16-20.)
- "promotion instance": a specific marking [*sic*] communication generated from promotion templates using parameterized standard attributes and/or

static attributes. (*See id.* at Figs. 8-9, 14; 2:51-54, 2:61-3:1, 4:24-26, 5:40-50, 6:54-58.)

- "attributes": information specifying properties of a promotion instance, such as a name of a promotion instance, a description for a promotion instance, and an expiration date of a promotion instance. (*See id.* at Figs. 6, 11-12, 16, 19, 21A-21B; 3:66-4:8, 4:45- 6:39, 6:54-58, 7:16-27.)
- "at runtime": during the promotion management campaign. (*See id.* at Figs. 10, 14; 8:26-30, 12:14-15, 12:22-27, 14:40-51.)
- "promotion list": a collection of one or more promotion instances. (*See id.* at Figs. 16-19; 16:16-65, 17:40-51.)
- "promotion management campaign": the execution of assigning promotion instances to entities that are intended recipients for specific marketing communications. (*See id.* at Figs. 1-3, 20, 21A-21C; 3:8-18, 3:34-42, 3:55-65, 5:31-38, 6:24-29, 9:45-48, 12:6- 10, 12:24-27, 17:31-39.)

Id.

Zynga responds that IBM's proposed constructions do not change its § 101 analysis. D.I. 47 at 4–7.[1]

The § 101 eligibility inquiry is for the court to decide as a matter of law. *See Bilski*, 561 U.S. at 602. "At the pleading stage, to the extent the § 101 question of law is informed by subsidiary factual issues, those facts are to be construed in the light most favorable to Plaintiff." *Two-Way Media Ltd. v. Comcast Cable Commc'ns, LLC*, No. 14-1006-RGA, 2016 WL 4373698, at *3 (D. Del. Aug. 15, 2016), *aff'd*, 874 F.3d 1329 (Fed. Cir. 2017) (citations omitted). There is no bright-line rule that a court must construe terms in the asserted patent before it performs a § 101 analysis. *Bancorp Servs., L.L.C. v. Sun Life Assur. Co. of Canada (U.S.)*, 687 F.3d 1266, 1273–74 (Fed.Cir.2012) ("[W]e perceive no flaw in the notion that claim construction is not an inviolable prerequisite to a validity determination under [Section] 101.")

[1] In its reply brief, Zynga states that it "accepts IBM's constructions for the purposes of this 12(b)(6) motion," but "it reserves the right to advance alternative constructions in the future and does not concede that IBM's constructions are correct." D.I. 47 at 7 n.4 (citation omitted); *see also* D.I. 70 at 6:15-19.

"If there are claim construction disputes at the Rule 12(b)(6) stage, [the Federal Circuit] ha[s] held that either the [trial] court must proceed by adopting the non-moving party's constructions . . . or the [trial] court must resolve the disputes to whatever extent is needed to conduct the § 101 analysis, which may well be less than a full, formal claim construction." *Aatrix Software*, 882 F.3d at 1125 (citations omitted). When assessing Rule 12(b)(6) motions seeking dismissal on § 101 grounds and where the patentee proposes constructions for claims in the asserted patent, courts have adopted the patentee's proposed constructions for the purposes of the motion. *UbiComm, LLC v. Zappos IP, Inc.*, No. 13–1029–RGA, 2013 WL 6019203, at *3 n.2, *6 (D. Del. Nov. 13, 2013) ("As the Court must, the Court reads the claim in the light most favorable to the Plaintiff. Here, as the Plaintiff has submitted its proposed claim constructions, there is no need for the Court to independently construe the claim terms. Instead, the Court simply adopts the Plaintiff's claim constructions for the purpose of this Motion and finds that this construction would be the construction most favorable to the Plaintiff." (citation omitted)); *see also Genetic Technologies Ltd. v. Lab. Corp. of Am.*, No. 12–1736–LPS–CJB, 2014 WL 4379587, at *6 (D. Del. Sept. 3, 2014) (citing cases).

For the reasons stated above, the Court adopts IBM's proposed constructions for purposes of this Motion.

b. Patent Eligible Subject Matter

i. *Alice* Step 1

The Court must first determine whether claim 1 of the '904 patent is directed to an abstract idea.[2] For the reasons stated below, the Court finds that the '904 patent is directed to the abstract idea of manipulating and organizing data.

IBM argues that "[t]he '904 patent claims are patent-eligible under *Alice* step one because they are directed toward a technological improvement instead of an abstract idea." D.I. 40 at 7. Specifically, "the ***data structures*** (promotion templates, promotion instances, and promotion lists) ***improve*** the way a computer generates and distributes tailored promotions in campaign management software," which "is a patentable 'improvement to computer functionality itself.'" D.I. 40 at 7 (emphasis in original and citations omitted). IBM contends *Enfish* is the most analogous case to the facts in this case. D.I. 70 at 15:25-16:1; *see also* D.I. 40 at 7.

The Court disagrees and finds *Enfish* distinguishable. The claims at issue in *Enfish* recited a novel data structure—a self-referential table that was "a specific type of data structure designed to improve the way a computer stores and retrieves data in memory." *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1339 (Fed. Cir. 2016). The court in *Enfish* held, "the claims are not simply directed to *any* form of storing tabular data, but instead are specifically directed to a *self-referential* table for a computer database. For [the claim at issue], this is reflected in step three of the 'means for configuring' algorithm . . . ." *Id.* at 1337. The novel data structure in *Enfish* was required by the claims. In contrast, the claim language in the '904 patent, even adopting IBM's proposed

[2] The Court finds claim 1 of the '904 patent representative. Section III.c of the Memorandum Opinion explains the Court's reasoning.

constructions, are not directed to a specific data structure that improves the way a computer generates and distributes tailored promotions.

Section 101 eligibility must be assessed on what the patent claims recite. *See Alice*, 573 U.S. at 218 ("We must first determine whether ***the claims*** at issue are directed to a patent-ineligible concept.") (emphasis added); *Ericsson Inc. v. TCL Commc'n. Tech. Holdings Ltd.*, 955 F.3d 1317, 1325 (Fed. Cir. 2020) ("We have alternatively described this inquiry as looking at the ***focus of the claims***.") (internal quotations omitted and emphasis added); *ChargePoint, Inc. v. SemaConnect Inc.*, 920 F.3d 759, 766 (Fed. Cir. 2019) ("But while the specification may help illuminate the true focus of a claim, when analyzing patent eligibility, reliance on the specification must ***always yield to the claim language*** in identifying that focus.") (emphasis added). IBM alleges the claim terms promotion templates, promotion instances, and promotion lists recite data structures that are directed to improve computer functionality. D.I. 40 at 7. IBM construes the term "promotion template" to mean "an object with customizable attribute fields that the user can choose so as to produce other promotion templates, promotion instances, or promotion versions." *Id.* at 6. The "customizable attribute fields" that the user chooses are the defining feature of all templates and all templates serve as a starting point to create other documents. *See also* D.I. 70 at 6:23-25 ("IBM's construction mirrors the defining features of any template using customized fields to create other documents."). IBM's proposed construction of "promotion template" does not limit the claims to a particular kind of data structure or technological improvement.[3] This Court and

[3] IBM construes "attributes" to mean "information specifying properties of a promotion instance, such as a name of a promotion instance, a description for a promotion instance, and an expiration date of a promotion instance." D.I. 40 at 6. IBM's proposed construction for "attributes" does not limit the claims to a specific kind of data structure or technological improvement. IBM's construction merely encompasses the abstract idea of filling information into a template.

"[o]ther courts have held that patents directed to using templates to collect or generate documents, such as web pages, are abstract ideas." *Hyper Search, LLC v. Facebook, Inc.*, No. 17–1387–CFC–SRF, 2018 WL 6617143, at *6 (D. Del. Dec. 17, 2018) (citations omitted).

IBM construes the claim term "promotion instance" to mean "a specific marking [*sic*] communication generated from promotion templates using parameterized standard attributes and/or static attributes." D.I. 40 at 6. IBM's proposed construction is broad enough to include a promotion instance that uses dynamic and static attributes, but also promotion instances that just use static attributes. Promotion instances that use static attributes provide no technological improvements over the prior art. In fact, IBM appears to concede this point:

> In the prior art, marketers used a top-down system in order to create and distribute promotions . . . . Marketers would create a small number of standardized promotions and query a database for potential customers with particular attributes to find a group of targets who would receive the promotions. Marketers could modify basic information by completing fields in the standardized promotions, much like completing a form when going to the doctor's office. In this one-way process of distributing promotions, information was only received from the consumers after the promotions were already sent.

D.I. 27 ¶ 55; *see also* D.I. 70 at 35:19-20.

IBM's proposed construction of "promotion instance" is simply another way to describe a completed or filled-out template. IBM's proposed construction also fails to explain how the invention improves the way a computer generates and distributes tailored promotions. IBM construes "promotion list" to mean "a collection of one or more promotion instances." D.I. 40 at 7. This construction does not impart any structural or technological limits to the claim, and it is not directed to a new technologically improved data structure.

Finally, IBM construes "promotion management campaign" to mean "the execution of assigning promotion instances to entities that are intended recipients for specific marketing

communications." *Id.*[4] IBM's proposed construction merely states that the invention can assign the promotion instances to a target audience. As noted by Zynga, "[t]his adds nothing, as *any* promotion list (including one that is a single static promotion) can be assigned to intended recipients." D.I. 47 at 6 (emphasis in original). In sum, none of IBM's proposed constructions change the Court's conclusion that claim 1 of the '904 patent is directed to the abstract idea of organizing and manipulating data. The Court disagrees with IBM that its proposed constructions recite data structures that improve the way a computer generates and distributes tailored promotions.

The Supreme Court and the Federal Circuit have provided some guideposts as to what constitutes an "abstract idea." For example, claims that recite "'method[s] of organizing human activity' are not patent-eligible because they are abstract ideas." *Smartflash LLC v. Apple Inc.*, 680 F. App'x 977, 982 (Fed. Cir. 2017) (quoting *Alice*, 573 U.S. 208 at 220). Claims that are "'directed to an improvement to computer functionality'" are not abstract, while claims "'simply adding conventional computer components to well-known business practices'" are abstract. *In re TLI Commc'ns LLC Patent Litig.*, 823 F.3d 607, 612 (Fed. Cir. 2016) (quoting *Enfish*, 822 F.3d at 1335). In deciding questions of patent eligibility, and, specifically, in navigating the parameters of an abstract idea, it is proper for courts to compare the claims at issue to those previously analyzed in other judicial decisions. *See, e.g.*, *Elec. Power Grp., LLC v. Alstom S.A.*, 830 F.3d 1350, 1351–54 (Fed. Cir. 2016); *see also Enfish*, 822 F.3d at 1334 (allowing courts to "compare claims at issue to those claims already found to be directed to an abstract idea in previous cases").

[4] The Court discusses IBM's proposed construction of "runtime," which is found in dependent claim 2, in Section III.c of the Memorandum Opinion.

The Court finds that claim 1 of the '904 patent recites three steps: (1) a generating step, i.e., filling in template fields in a new promotion; (2) a filtering step, i.e., filtering a database of promotions based upon the user's search query; and (3) an assigning and storing step, i.e., assigning the selected promotions to a list and saving that list. D.I. 27-1, Ex. C at claim 1; D.I. 27 ¶¶ 70–72; D.I. 30 at 5–6. The claims of the '904 patent fail under *Alice* step one, because they are directed to the abstract idea of manipulating and organizing data, which falls into "a familiar class of claims 'directed to' a patent-ineligible concept." *Elec. Power Grp.*, 830 F.3d at 1353 (finding the asserted patent ineligible because it was directed to "collecting information, analyzing it, and displaying certain results of the collection and analysis."); *see also Content Extraction & Transmission LLC v. Wells Fargo Bank*, 776 F.3d 1343, 1347 (Fed. Cir. 2014) (holding the asserted claims were directed to "the abstract idea of 1) collecting data, 2) recognizing certain data within the collected data set, and 3) storing that recognized data in a memory" and were not patent eligible.); *Univ. of Fla. Research Found., Inc. v. Gen. Elec. Co.*, 916 F.3d 1363, 1367–68 (Fed. Cir. 2019) (holding claims were not patent eligible because they were directed to collecting, manipulating, and displaying data).

The Court finds *Intellectual Ventures I LLC v. Capital One Financial Corp.* to be particularly instructive. 850 F.3d 1332 (Fed. Cir. 2017). The patent at issue "describes presenting the user with a second document—the 'dynamic document'—which is based upon data extracted from the original XML document . . . [T]he user can then make changes to the data displayed in the dynamic document and the changes will be dynamically propagated back into the original XML document (despite the acknowledged compatibility problems with such documents)." *Id.* at 1339. The Federal Circuit held the claims were not patent eligible because the "claimed invention

[wa]s directed to the abstract concept of collecting, displaying, and manipulating data of particular documents." *Id.* at 1341–42.

The '904 patent is similarly directed to the abstract idea of (1) manipulating data, i.e., generating promotions from a template; (2) organizing data, i.e., searching a database based upon a user's search query; and (3) storing data, i.e., saving selected promotions in a list. *See* D.I. 27-1, Ex. C at claim 1. "The concept of data collection, recognition, and storage is undisputedly well-known." *Content Extraction*, 776 F.3d at 1347.

Court have also held patents providing targeted advertising are directed to an abstract idea. *See, e.g.*, *Free Stream Media Corp. v. Alphonso Inc.*, 996 F.3d 1355, 1362 (Fed. Cir. 2021); *Intellectual Ventures I LLC v. Capital One Bank (USA)*, 792 F.3d 1363, 1369 (Fed. Cir. 2015); *Bridge & Post, Inc. v. Verizon Commc'ns, Inc.*, 778 F. App'x 882, 886 (Fed. Cir. 2019). Claim 1 describes a promotion management software that provides tailored promotions to a target audience. "The concept of gathering information about one's intended market and attempting to customize the information then provided is as old as the saying, 'know your audience.'" *OpenTV, Inc. v. Netflix Inc.*, 76 F.Supp.3d 886, 893 (N.D. Cal. Dec. 16, 2014).

Claim 1 also merely recites vague, functional steps—like "***generating*** . . . a promotion instance from a promotion template," "***searching*** one or more data repositories . . .," "***returning*** a list ...," "***receiving*** . . . a selection of one or more promotion instances . . .," "***assigning*** the selected promotion instances to the promotions list," and "***storing*** the promotion list in an electronic medium." D.I. 27-1, Ex. C at claim 1 (emphases added). Claim 1, in light of IBM's proposed constructions, does not disclose any "particular way of programming or designing the [promotion management campaign] software" or "how this would be technologically implemented." *See Apple, Inc. v. Ameranth, Inc.*, 842 F.3d 1229, 1241, 1244 (Fed. Cir. 2016). These vague, functional

steps in claim 1 are abstract because they are "devoid of technical explanation as to how to implement the invention." *See In re TLI Commc'ns LLC Patent Litig.*, 823 F.3d at 615. The claims also recite generic computer components, like "one or more computers" and "one or more data repositories." *See, e.g.*, D.I. 27-1, Ex. C at claim 1. Notably, nothing in the specification suggests that the promotion management campaign "itself is improved from a technical perspective, or that it would operate differentially than it otherwise could." *See ChargePoint*, 920 F.3d at 768. These are merely "'generalized steps to be performed on a computer using conventional computer activity'" and therefore an abstract idea. *See VideoShare, LLC v. Google, Inc.*, No 13–990–GMS, 2016 WL 4137524, at *4 (D. Del. Aug. 2, 2016) (citation omitted).

Zynga also argues that "[c]ourts have likewise found individual aspects of the asserted claims—like using a template and filtering a database through search—to be directed to abstract ideas." D.I. 30 at 8. For example, courts have held patents directed to filling out templates were directed to an abstract idea. *See, e.g.*, *CyberFone Sys., LLC v. Lexmark Int'l, Inc.*, 137 F. Supp.3d 648, 659 (D. Del. Oct. 8, 2015) (finding asserted claims directed to "entering and processing data in response to questions on forms or templates" to be an abstract idea); *Tele-Publishing Inc. v. Facebook, Inc.*, 252 F. Supp.3d 17, 23 (D. Mass. May 11, 2017) (claims directed to the creation of a personal page for a user that set out steps to "collect and store personal information" were found to be abstract). Claim 1 explicitly states that the promotion management software uses promotion templates to generate the promotions. *See* D.I. 27-1, Ex. C at claim 1 ("producing . . . a promotion list for a promotion management campaign by: generating . . . a promotion instance from a promotion ***template*** . . .) (emphasis added).

Courts have also found claims relating to filtering data are directed to an abstract idea. *See, e.g.*, *Intellectual Ventures I LLC v. Erie Indem. Co.*, 850 F.3d 1315, 1327 (Fed. Cir. 2017) (asserted

claims were "drawn to the abstract idea of 'creating an index and using that index to search for and retrieve data.'"); *BASCOM Glob. Internet Servs. v. AT&T Mobility LLC*, 827 F.3d 1341, 1348 (Fed. Cir. 2016) (holding that "filtering content is an abstract idea because it is a longstanding, well-known method of organizing human behavior, similar to concepts previously found to be abstract); *Blackbird Tech LLC v. Advanced Discovery Inc.*, No. 16–413–GMS, 2017 WL 2734725, at *4 (D. Del. June 26, 2017) (finding the asserted claims "drawn to the steps of 1) conducting a search based on a search query, 2) determining a concept associated with a search query, 3) and then ranking the search results based on which documents are most relevant to that concept" abstract). Claim 1 similarly recites generic filtering steps. *See, e.g.*, D.I. 27-1, Ex. C at claim 1 ("receiving. . . a search query that includes one or more attributes of a promotion instance," "searching one or more data repositories for promotion instances having attributes corresponding to the attributes specified in the search query," "returning a list including one or more promotion instances having the attributes corresponding to the attributes specified in the search query," and "receiving . . . a selection of one or more promotion instances, from the returned list, to be included in the promotion list."). The Federal Circuit has held "[a]dding one abstract idea . . . to another abstract idea . . . does not render the claim non-abstract." *RecogniCorp, LLC v. Nintendo Co.*, 855 F.3d 1322, 1327 (Fed. Cir. 2017). Thus, claim 1 merely recites two abstract ideas—using a template and filtering a database through a search. These two abstract ideas combined do not render claim 1 non-abstract.

Because the claims of the '904 patent are directed to an abstract idea, the Court proceeds to *Alice* step two.

ii. *Alice* Step 2

In *Alice* step two, we consider the elements of the claim, both individually and as an ordered combination, to assess whether "the limitations present in the claims represent a patent-eligible application of the abstract idea." *Content Extraction*, 776 F.3d at 1347 (citation omitted). Merely reciting the use of a generic computer or adding the words "apply it with a computer" cannot convert a patent-ineligible abstract idea into a patent-eligible invention. *Alice*, 573 U.S. at 223; *Versata Dev. Grp., Inc. v. SAP Am., Inc.*, 793 F.3d 1306, 1332 (Fed. Cir. 2015). "To save a patent at step two, an inventive concept must be evident in the claims." *RecogniCorp*, 855 F.3d at 1327 (citation omitted).

The Court finds no saving inventive concept in claim 1 of the '904 patent. As discussed above, claim 1 describes the use of generic computer components. D.I. 27-1, Ex. C at claim 1 ("one or more computers" and "one or more data repositories"). "Nothing in the claims, understood in light of the specification, requires anything other than off-the-shelf, conventional computer, network, and display technology for gathering, sending, and presenting the desired information." *Elec. Power Grp.*, 830 F.3d at 1355 (finding the claims do not recite an inventive concept). The specification confirms that the claims merely use generic computer components. The specification states that the '904 patent can be executed on "any one or more processors of any kind of digital computer" and that the data can be stored on "all forms of non-volatile memory, including by way of example semiconductor memory devices, e.g., EPROM, EEPROM, and flash memory devices; magnetic disks, e.g., internal hard disks or removable disks; magneto optical disks; and CD ROM and DVD-ROM disks." D.I. 27-1, Ex. C at 23:37-39, 23:48-54.

IBM analogizes to *DDR Holdings, LLC v. Hotels.com, L.P.*, 773 F.3d 1245 (Fed. Cir. 2014), to argue that there is an inventive concept under *Alice* step two. D.I. 40 at 15. In *DDR*

Holdings, LLC, the Federal Circuit found the asserted claims patent-eligible because they "specify how interactions with the Internet are manipulated to yield a desired result" and recite "a specific way to automate the creation of a composite web page by an 'outsource provider' that incorporates elements from multiple sources in order to solve a problem faced by websites on the Internet." 773 F.3d at 1258–59. Unlike *DDR Holdings, LLC*, claim 1 of the '904 patent fails to provide any technical detail. Claim 1 does not provide a *specific* way to solve a problem. Rather, claim 1 recites generic computer components to increase the efficiency in creating marketing promotions. Merely reciting an abstract idea performed on generic computer components, as claim 1 does in the '904 patent, without more is not an inventive concept.

IBM argues that the '904 patent recites at least the following inventive concepts: (1) "it teaches a promotion template that generates promotion instances using dynamic attributes," and (2) "it teaches the generation of 'smart' promotion lists using specific steps." D.I. 40 at 13. Zynga responds that these arguments "fail at the outset," because even under IBM's proposed claim constructions, these "inventive concepts" are not claimed. D.I. 47 at 7. IBM's proposed construction of "promotion template" need not include "dynamic attributes" and nothing in the claims requires the claim term "promotion list" to be "smart" or require the "promotion list" to be used a certain way. "To save a patent at step two, an inventive concept must be evident *in the claims*." *Two-Way Media*, 874 F.3d at 1338 (finding the claim failed to recite an inventive concept even though the written description provided a purported innovative concept) (emphasis added). It is improper for IBM to point to unclaimed features of the '904 patent to support its *Alice* step

two analysis.[5]

IBM also alleges that claim 1 "teaches software that generates (1) promotion instances from a promotion template and (2) the subsequent creation of promotion lists from those promotion instances in an ***ordered sequence*** . . . . Claim 1 teaches software-based data structures that sequentially generate dynamically tailored promotions and bundle them into promotion bundles." D.I. 40 at 14 (citations omitted) (emphasis in original). However, the steps in claim 1 merely describe a conventional order of operation of the invention—generating a promotion, filtering a database of promotion, assigning the selected promotion to a list, and then finally storing the promotion list. *See Two-Way Media*, 874 F.3d at 1339 (finding no inventive concept of the ordered combination of claim limitations because "[t]he claim uses a conventional ordering of steps—first processing the data, then routing it, controlling it, and monitoring its reception—with conventional technology to achieve its desired result.").[6] IBM's alleged inventive concepts are not tethered to

[5] After briefing on the Motion was completed, IBM filed a Notice of Supplemental Authority and cited to *Cooperative Entertainment v. Kollective Tech., Inc.*, 50 F.4th 127 (Fed. Cir. 2022) as subsequent authority to support its opposition to the Motion. D.I. 56. IBM, however, fails to explain how its Notice of Supplemental Authority supports any of its arguments. Regardless, the Court finds *Cooperative Entertainment* distinguishable. The Federal Circuit in *Cooperative Entertainment* found that the claim language "recites the allegedly inventive concept of a particular network structure for sharing content through a dynamic P2P network." *Id.* at 131. The Federal Circuit found the inventive concept was claimed in the claims. In this action, IBM points to *unclaimed* features of the '904 patent to support its inventive concept arguments.

[6] IBM also cites to the Patent Trial and Appeal Board's ("PTAB") Final Written Decision in its briefing and states, "the '904 patent's improvement over the prior art included 'the sequential nature and the specific order of the claim elements.'" D.I. 40 at 14 n.3 (citing D.I. 27 ¶80); *see also id.* at 14 ("Claim 1 teaches software-based data structures that sequentially generate dynamically tailored promotions and bundle them into promotion bundles." (citing *Zillow Group, Inc. et al. v. Int'l Bus. Machs. Corp.*, IPR 2020-01656, Paper 33 at 9-10 (March 3, 2022))). The Court agrees with Zynga that the PTAB's Final Written Decision "did not suggest the ordered sequence captures any supposed inventive concept underlying IBM's step-two argument." D.I. 47 at 9 n.5. During the IPR proceeding, the PTAB was evaluating whether the '904 patent was valid under § 102, not whether the '904 patent is directed to patent-eligible subject matter under § 101.

the claim language of the '904 patent. *See* D.I. 40 at 13, 14.

Thus, the Court finds no inventive concept that transforms the claims into a patent-eligible application of the abstract idea.

c. Representativeness

The parties dispute whether claim 1 of the '904 patent is representative. For the reasons stated below, the Court finds claim 1 representative of all claims of the '904 patent for purposes of determining whether the claims recite patent-eligible subject matter.

Claim 1 recites "producing" or "generating" promotions using a template, "searching" for promotions that match certain attributes specified in a search query, "assigning" the promotions to a promotion list, and "storing the promotion list." In its briefing, Zynga explains why claims 2-21 "are directed to the same abstract idea [described in claim 1] and include no inventive step." D.I. 30 at 18–20.[7] For example, Zynga notes that dependent claims 3 and 13 recite displaying "the one or more promotion instances stored in the electronic medium in a searchable and browsable view." D.I. 27-1, Ex. C at claims 3, 13. Zynga argues that "the Federal Circuit has repeatedly recognized that 'graphical user interface' elements are 'well-known computer components' that do not save a claim from abstraction or constitute and inventive concept." D.I. 30 at 19 (citing *Capital One Bank (USA)*, 792 F.3d at 1368–69). Zynga provides similar analysis for the other claims. *See* D.I. 30 at 18–20. Thus, Zynga argues that claim 1 is representative.

IBM vaguely criticizes Zynga's argument that claim 1 is representative, but, other than dependent claim 2, IBM fails to provide meaningful arguments as to the distinctive significance of claims 3-21. *See* D.I. 40 at 17–18. Thus, IBM waives its representativeness argument for claims

[7] Zynga also notes that claim 1 of the '904 patent is the only claim that is specifically asserted in IBM's First Amended Complaint. *See* D.I. 30 at 18 (citing D.I. 27 ¶ 157).

not analyzed separately, i.e., claims 3-21. *See Berkheimer v. HP Inc.*, 881 F.3d 1360, 1365 (Fed. Cir. 2018) ("Courts may treat a claim as representative in certain situations, such as if the patentee does not present any meaningful argument for the distinctive significance of any claim limitations not found in the representative claim or if the parties agree to treat a claim as representative.").

As to dependent claim 2, IBM argues it teaches "data structures that allow a user to modify promotion instances and promotion lists ***during*** the promotion management campaign." D.I. 40 at 17 (emphasis in original). The Court disagrees with IBM. Dependent claim 2 recites:

> The method of claim 1 wherein assigning the selected promotion instances to the promotions list comprises:
>
> > querying promotion instances to find one or more matching promotion instances having matching attributes to one or more of the promotion attributes; and
> >
> > at runtime, adding the matching promotion instances to the promotions list.

D.I. 27-1, Ex. C at claim 2.

The first limitation describes "querying promotion instances." This limitation merely teaches searching and filtering data. As noted by Zynga during oral argument, this limitation "doesn't tell you how to do anything. There's no structure. There's no technological improvement." D.I. 70 at 14:19-24. IBM also points to the "at runtime" limitation to support its inventive concept argument. IBM construes "at runtime" to mean "during the promotion management campaign" and construes "promotion management campaign" to mean "the execution of assigning promotion instances to entities that are intended recipients for specific marketing communications." D.I. 40 at 7. Even adopting IBM's proposed constructions, the "inventive concept" that IBM points to is an *unclaimed* feature of dependent claim 2—the claim does not describe *modifying the promotion* during the promotion management campaign. Dependent claim 2 recites completing the following two steps simultaneously: (1) adding a

promotion to a list and (2) assigning the promotion to the target audience. These are additional data organization steps.

Thus, the Court concludes claim 1 is representative because all of the claims of the '904 patent "are substantially similar and linked to the same abstract idea." *Content Extraction*, 776 F.3d at 1348.

IV. CONCLUSION

For the reasons stated above, the '904 patent is directed to patent-ineligible subject matter under 35 U.S.C. § 101. Thus, the Court grants Zynga's Motion. The Court will enter an Order consistent with this Memorandum Opinion.