United States District Court
Northern District of California

UNITED STATES DISTRICT COURT

NORTHERN DISTRICT OF CALIFORNIA

SAN JOSE DIVISION

10TALES, INC., Plaintiff, v. TIKTOK INC., et al., Defendants.	Case No. 21-cv-03868-VKD **ORDER GRANTING DEFENDANTS' MOTION FOR JUDGMENT ON THE PLEADINGS** Re: Dkt. No. 206

Plaintiff 10Tales, Inc. ("10Tales") sues defendants TikTok, Inc., TikTok Pte. Ltd., ByteDance Ltd., and ByteDance, Inc. (collectively "TikTok"), alleging infringement of claim 1 of U.S. Patent No. 8,856,030 ("the '030 patent"), titled "Method, System and Software for Associating Attributes within Digital Media Presentations." TikTok now moves pursuant to Rule 12(c) for judgment on the pleadings, arguing that the '030 patent is invalid because it claims ineligible subject matter under 35 U.S.C. § 101. 10Tales opposes the motion. Upon consideration of the moving and responding papers, as well as the oral arguments presented, the Court grants TikTok's motion for judgment on the pleadings, without leave to amend.

I. BACKGROUND

The '030 patent issued on October 7, 2014, and claims priority to a provisional application filed on April 7, 2003. *See* '030 patent, cover page. The patent concerns technology for customizing or personalizing content based on user information. The specification describes a "method, system, and software . . . which allow for customizing and personalizing content based on a combination of a user's demographics, psychodemographics, cognitive states, emotional states, social placement and group interaction dynamics within an online community, and/or

affinity for certain content elements (images, sounds, segments, graphics, video, text, dialog), self-provided narrating content, internal narrative traits preference topology, and expectation level and temporal spacing of assets within the narrative." *Id*. at 2:65-3:7. Noting the "advent of the digital era" and "threat[s] [to] advertising," the '030 patent describes a need "to attract individuals to content that is personally more relevant and impactful for them and which may contain an advertising message (in the form of product placement), and have them receive that message in full, as opposed to skipping over all or a portion of the message." *Id*. at 1:52, 59, 2:3-7; *see also id*. at 1:58-61. The patent further notes an additional need "to have the ability to understand the individual's likes and dislikes or current mood in order to adapt the message appropriately for the individual at the time that they are receiving [content]," and "to change the content of the digital media narrative based on user [information]." *Id*. at 2:8-11, 55-56.

The claimed invention purports to provide an enriched user experience and more powerful media for content creators, such as advertisers and artists, through content that has greater impact on users. *See id.* at 3:63-4:14. Among the stated advantages of the claimed invention is that "it allows advertising to be inserted in subtle ways and presented in a context in which users may be able to fully engulf themselves into the lifestyle being positioned and portrayed by the brand," and users "are much more likely to be receptive to the message presented, and less likely to skip over or fast-forward through the content including the advertising." *Id*. at 4:3-7, 12-14.

10Tales contends that TikTok infringes claim 1 (*see* Dkt. No. 124 ¶¶ 50-77 & p. 20), the sole independent claim of the '030 patent, which recites:

> 1. A system for associating user attributes with digital media asset attributes and creating a user specific composite digital media display, the system comprising:
>
> a) a server;
>
> b) a computer-readable storage medium operably connected;
>
> c) wherein the computer-readable storage medium contains one or more programming instructions for performing a method of associating user attributes with digital media asset attributes and creating a user specific composite digital media display, the method comprising:
>
> identifying a first set of digital media assets stored on the computer-

> readable storage medium,
>
> creating, from the first set of digital media assets, a first composite digital media display,
>
> presenting to the user via a display server, the first composite digital media display;
>
> retrieving user social network information from at least one source external to the presented first composite digital media display, wherein the user social network information contains one or more user attributes;
>
> selecting, based on the user attributes in the social network information, a second set of digital media assets, wherein the second set of digital media assets is associated with one or more user attributes found in the user social network information;
>
> monitoring the first composite digital media display for the presence of a trigger, wherein the trigger indicates a personalization opportunity in the first set of digital media assets;
>
> performing a rule based substitution of one or more of the digital media assets from the first set of digital media assets with one or more of the digital media assets from the second set of digital media assets to create a user specific set of digital media assets;
>
> creating, from the user specific digital media assets, a user specific composite digital media display; and
>
> presenting to the user via the display server, the second composite digital media display.

'030 patent at 20:62-22:15.

TikTok previously brought a Rule 12(b)(6) motion to dismiss 10Tales's complaint on the ground that claim 1 is directed to ineligible subject matter under 35 U.S.C. § 101. *See* Dkt. No. 132. Judge Gonzalez Rogers, who was then presiding over this action, initially observed that the '030 patent bore "relevant similarities to the patent in *Free Stream Media Corp., v. Alphonso, Inc.*, 996 F.3d 1355, 1362-65 (Fed. Cir. 2021)," which concerned a patent directed at the abstract idea of targeted advertising. *See* Dkt. No. 156 at 5. However, noting that the parties disputed not only "the basic character of the subject matter of the claimed invention," but also whether claim 1 of the patent "introduces technological improvements over the state of the art that were not conventional or generic at the time the patent issued," Judge Gonzalez Rogers ultimately concluded that claim construction was required to properly adjudicate the question of whether the '030 patent claims ineligible subject matter. *See id*. at 5-6. In particular, she noted that 10Tales

"argues that Claim 1 discloses a system for analyzing how a user interacts with others in a social network to determine a user's affinity for content and the use of a rule based algorithm to create a personalized digital media display for a particular user." *Id*. at 6. Accordingly, TikTok's Rule 12(b)(6) motion to dismiss was denied without prejudice. *Id*. at 7.

Upon the parties' consent, this action subsequently was reassigned to this Court for all purposes, including trial. 28 U.S.C. § 636; Fed. R. Civ. P. 72; Dkt. Nos. 174, 175. After holding a tutorial and a claim construction hearing (Dkt. Nos. 189, 190), the Court issued its claim construction order (Dkt. No. 204). TikTok then filed the present Rule 12(c) motion for judgment on the pleadings, arguing that claim 1 of the '030 patent is ineligible under 35 U.S.C. § 101.

II. LEGAL STANDARD

A. Rule 12(c)

A motion for judgment on the pleadings may be brought "[a]fter the pleadings are closed—but early enough not to delay trial." Fed. R. Civ. P. 12(c). Rule 12(c) motions test the legal sufficiency of a claim. *Chavez v. United States*, 683 F.3d 1102, 1108 (9th Cir. 2012). Such motions are "functionally identical" to those brought pursuant to Rule 12(b)(6), and "the same standard of review applies to motions brought under either rule." *Cafasso v. Gen. Dynamics C4 Sys., Inc*., 637 F.3d 1047, 1054 n.4 (9th Cir. 2011) (internal quotations and citations omitted). Accordingly, the Court must "accept factual allegations in the complaint as true and construe the pleadings in the light most favorable to the nonmoving party," but need not accept as true conclusory allegations. *Manzarek v. St. Paul Fire & Marine Ins. Co*., 519 F.3d 1025, 1031 (9th Cir. 2008). The Court may consider materials subject to judicial notice without converting a Rule 12(c) motion into one for summary judgment. *United States v. 14.02 Acres*, 547 F.3d 943, 955 (9th Cir. 2008).

Judgment on the pleadings is proper when, taking all allegations in the pleading as true, the complaint does not plead "enough facts to state a claim to relief that is plausible on its face," and the moving party is entitled to judgment as a matter of law. *See Bell Atl. Corp. v. Twombly*, 550 U.S. 544, 570 (2007); *see also Ashcroft v. Iqbal*, 556 U.S. 662, 678 (2009); *Stanley v. Trs. of Cal. State Univ*., 433 F.3d 1129, 1133 (9th Cir. 2006). "Thus, patent eligibility may be resolved at the

Rule 12 stage only if there are no plausible factual disputes after drawing all reasonable inferences from the intrinsic and Rule 12 record in favor of the non-movant." *Cooperative Ent., Inc. v. Kollective Tech., Inc.*, 50 F.4th 127, 130 (Fed. Cir. 2022).

B. Patent Eligibility Under 35 U.S.C. § 101

"Eligibility under 35 U.S.C. § 101 is a question of law, based on underlying facts," *SAP Am., Inc. v. InvestPic, LLC*, 898 F.3d 1161, 1166 (Fed. Cir. 2018), "[b]ut not every § 101 determination contains genuine disputes over the underlying facts material to the § 101 inquiry," *Trinity Info Media, LLC v. Covalent, Inc.*, 72 F.4th 1355, 1360 (Fed. Cir. 2023) (internal quotations and citation omitted). "Like other legal questions based on underlying facts, [eligibility under § 101] may be, and frequently has been, resolved on a Rule 12(b)(6) or (c) motion where the undisputed facts, considered under the standards required by that Rule, require a holding of ineligibility under the substantive standards of law." *SAP Am., Inc.*, 898 F.3d at 1166 (citations omitted). As the moving party, TikTok bears the burden of demonstrating invalidity by clear and convincing evidence. *See* 35 U.S.C. § 282; *Microsoft Corp. v. i4i Ltd. P'ship*, 564 U.S. 91, 95 (2011).

The Patent Act provides that a patent may be obtained for "any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof[.]" 35 U.S.C. § 101. However, patent protection does not extend to claims that monopolize the "basic tools of scientific and technological work," and it is well settled that "[l]aws of nature, natural phenomena, and abstract ideas are not patentable." *Alice Corp. Pty. Ltd. v. CLS Bank Int'l*, 573 U.S. 208, 216 (2014) (quotations and citation omitted). Courts must nonetheless "tread carefully in construing this exclusionary principle lest it swallow all of patent law." *Id.* at 217. "At some level, 'all inventions . . . embody, use, reflect, rest upon, or apply laws of nature, natural phenomena, or abstract ideas.'" *Id.* (quoting *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 566 U.S. 66, 71 (2012)). "Thus, an invention is not rendered ineligible for patent simply because it involves an abstract concept." *Id.*

Under the two-step framework described in *Alice*, the Court must first determine whether the claim at issue is "directed to a patent-ineligible concept." *Id.* at 218. If so, then at step two the

Court must "examine the elements of the claim to determine whether it contains an 'inventive concept' sufficient to 'transform' the claimed abstract idea into a patent-eligible application." *Id.* at 221 (quoting *Mayo Collaborative Servs.*, 566 U.S. at 72-73). Specifically, the Court must determine "whether the claim elements, individually and as an ordered combination, contain an inventive concept, which is more than merely implementing an abstract idea using well-understood, routine, and conventional activities previously known to the industry." *Chewy, Inc. v. Int'l Bus. Machines Corp.*, 94 F.4th 1354, 1365 (Fed. Cir. 2024) (internal quotations and citation omitted).

III. DISCUSSION

TikTok argues that the '030 patent claims patent-ineligible subject matter because claim 1 is directed to an abstract idea under *Alice* step one and fails to recite an inventive concept under *Alice* step two. Dkt. No. 206 at 2. 10Tales responds that the '030 patent claims technological improvements for personalizing content based on information derived from how a user interacts with others in an online social network, such that it is non-abstract under *Alice* step one. 10Tales also argues that, in any event, the elements of claim 1, considered individually and as whole, embody an inventive concept that does not preempt the abstract idea itself under *Alice* step two. *See* Dkt. No. 215 at 2, 24.

A. *Alice* Step One

At step one of the § 101 analysis, courts "evaluate the focus of the claimed advance over the prior art to determine if the claim's character as a whole is directed to excluded subject matter." *Trinity Info Media*, 72 F.4th at 1361 (internal quotations and citations omitted); *see also Alice*, 573 U.S. at 217. "Courts must ascertain the basic character of the [claimed] subject matter without describing the claims at such a high level of abstraction and untethered from the language of the claims that the claims would be virtually guaranteed to be abstract." *Trinity Info Media*, 72 F.4th at 1361 (internal quotations and citations omitted). "[W]hile 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." *Id.* (internal quotations and citations omitted).

TikTok contends that claim 1 of the ’030 patent essentially is directed to the abstract idea of targeted advertising. *See* Dkt. No. 206 at 10; Dkt. No. 216 at 4. 10Tales responds that claim 1 is directed to “a specific system for creating a more personalized set of digital media assets for a user based on retrieved user social network information,” which it says is not abstract. Dkt. No. 215 at 18. As described in the specification, the ’030 patent purports to address a need to learn more about a user in order to provide a user with digital media content that is more personally relevant and impactful. *See* ’030 patent at 2:3-4, 8-11, 55-56; *see also* Dkt. No. 215 at 15 (describing need addressed by ’030 patent as “the desire to learn more about the user to identify content that will have a strong impact on that particular individual.”). TikTok is correct that the specification discusses problems facing advertisers, including the need to “attract individuals to content that is personally more relevant and impactful for them and which may contain an advertising message . . . and have them receive that message in full, as opposed to skipping over all or a portion of the message.” *See* ’030 patent at 1:41-2:61, 3:7-17, 3:63-4:14, 6:59-61, 8:44-47, 17:57-65. However, claim 1 of the ’030 patent is broader; it recites a system and software for “performing a method of associating user attributes” from “user social network information” with “digital media assets,” and then creating and presenting a personalized “composite digital media display” to the user. ‘030 patent at 20:62-22-15; *see also id.* 19:44-47 (“The invention is intended to cover any [digital media asset] actions that make the digital media asset video sequence **300** more connected to the viewer and enhance the experience.”).

The Court agrees with 10Tales that claim 1 is not limited to advertising, and that the claim is more generally directed to a system for presenting personalized digital media content to a user based on the user attributes from user social network information. However, claim 1 *is* limited to an abstract idea: presenting personalized content to a user based on information about the user. The patent is not directed to any improvement in computer technology or network functionality, but instead claims a long-standing and fundamental practice of personalizing content based on user attributes that spans many domains. *See, e.g., Intell. Ventures I LLC v. Capital One Bank (USA)*, 792 F.3d 1363, 1369 (Fed. Cir. 2015) (observing “that newspaper inserts had often been tailored based on information known about the customer—for example, a newspaper might

advertise based on the customer's location."); *see also id*. at 1370 ("Tailoring information based on the time of day of viewing is also an abstract, overly broad concept long-practiced in our society. There can be no doubt that television commercials for decades tailored advertisements based on the time of day during which the advertisement was viewed.").

As explained below, careful consideration of the claim language demonstrates that the system of claim 1 recites only generic and conventional computer components, and the method it performs is defined by purely functional elements.

As 10Tales correctly observes, claim 1 is directed to a system. Dkt. No. 215 at 18. However, it does not follow, as 10Tales argues, that a system claim cannot be abstract. *See id.* "'[N]ot every claim that recites concrete, tangible components escapes the reach of the abstract-idea inquiry.'" *Affinity Labs of Texas, LLC v. Amazon.com Inc*., 838 F.3d 1266, 1269 (Fed. Cir. 2016) (quoting *In re TLI Commc'ns LLC Pat. Litig*., 823 F.3d 607, 611 (Fed. Cir. 2016)). Here, the system of claim 1 recites a conventional computer system with generic components, specifically "a server" and "a computer-readable storage medium" to which the server is "operably connected," wherein the computer-readable storage medium contains "programming instructions for performing a method." *See* '030 patent at 20:62-21:3. The specification makes clear no specialized components are contemplated by the claimed invention. *See, e.g.,* '030 patent at Fig. 5A and 11:65-12:46 (describing a generic server as part of "context diagram" for one embodiment of the claimed system); 16:1-4 ("The software may be executed on a compatible server environment including a web server, servlet container, Structured Query Language (SQL) database and Java Database Connectivity (JDBC) driver."); *see also id.* at Fig. 13 and 15:35-52 (describing generic computer system "for a realization of the server").

As the claimed elements of the system are merely generic, conventional components, the Court considers whether the asserted claim is directed to improvements in computer functions or capabilities, or whether it merely uses the computer components as tools to perform a method that is itself the abstract idea. *See Trinity Info Media,* 72 F.4th at 1362-63 ("In the context of software-based inventions, *Alice*/*Mayo* step one often turns on whether the claims focus on the specific asserted improvement in computer capabilities or, instead, on a process that qualifies as an abstract

idea for which computers are invoked merely as a tool.") (internal quotations and citations omitted); *Affinity Labs of Texas*, 838 F.3d at1270 ("In addressing the first step of the section 101 inquiry, as applied to a computer-implemented invention, it is often helpful to ask whether the claims are directed to 'an improvement in the functioning of a computer,' or merely 'adding conventional computer components to well-known business practices.'") (quoting *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1338 (Fed. Cir. 2016)). Here, the method steps of claim 1 require the computer system to perform the following functions by executing programming instructions (i.e. software): identifying stored content, creating displays, presenting displays to a user, retrieving information, selecting content, monitoring a display, and performing a substitution of one set of stored content for another. *See* '030 patent at 20:62-22:15. The specification confirms that all of these are routine computer functions. *See* '030 patent at 4:44-49, 12:6-10; 12:17-18; 12:23-37; 16:1-2; 16:16-22; 16:28-33; 20:62-22:15; Fig. 5A; Fig. 13.

Citing to the allegations of its operative amended complaint, 10Tales argues that the claimed advance of the '030 patent lies in personalizing a digital media presentation "through the social dynamics of the user as learned by the system," "analyz[ing] how that user interacts with other users in an online social network," and the use of "a rule based algorithm." Dkt. No. 215 at 15, 16; Dkt. No. 124 ¶¶ 58-60.[1] None of these alleged "improvements" is actually claimed.

First, with respect to 10Tales's assertion that the claimed system "learns" and "analyzes" a user's interactions with others in an "online social network" and then retrieves information derived from those interactions, claim 1 recites only "retrieving user social network information from at least one source external to the presented first composite digital media display." *See* '030 patent at 21:13-15. As construed by the Court, this element means "retrieving [*information derived from a user's interactions in an online community*] from at least one source *other than* the presented first composite digital media display." *See* Dkt. No. 204 at 17-22. In opposing TikTok's Rule 12(b)(6) motion before Judge Gonzalez Rogers, 10Tales argued that claim 1 recites an "improved

[1] Although 10Tales argues that, for present purposes, the Court must accept its allegations as true. 10Tales's allegations are entirely conclusory. *See* Dkt. No. 124 ¶¶ 58-60; *see also Simio, LLC v. FlexSim Software Products, Inc.*, 983 F.3d 1353, 1365 (Fed. Cir. 2020) (conclusory statements are disregarded when evaluating a complaint under Rule 12).

system" in that it "retrieves social network information about the user and *analyzes how* that user interacts with other users in an online social network in order to determine the user's affinity for certain digital media content." *See id*. at 19:14-18, 20:4-8 (emphasis added). When Judge Gonzalez Rogers observed that the purported improvement was "not in the claims," 10Tales argued that construction was necessary with respect to the term "retrieving user social network information from at least one source external to the presented first composite digital media display." *See id*. at 20:10-21:5. However, in the claim construction proceedings before this Court, 10Tales did not argue for a construction of the "retrieving" term that included "analyzing," and the Court did not construe the term that way. *See generally* Dkt. No. 167 at 17, 19; *see also* Dkt. No. 206-1 at 109.

Moreover, as construed by the Court, "the term 'user social network information' addresses the *kind* of information being retrieved, i.e., 'information derived from a user's interactions in an online community." Dkt. No. 204 at 22. Nothing in the claim addresses *how* user attributes are derived from the user's interactions in an online community or *how* those attributes are used to determine the user's affinity for content. The specification is likewise silent regarding the how the system "learns" or "analyzes," as it provides only conceptual diagrams and descriptions of the "social" aspects of personalization. *See, e.g.*, '030 patent at Figs. 6, 8-9, 23; 13:11-36; 13:50-14:14; 20:9-37.

Second, with respect to 10Tales's assertion that the claimed system relies on a "rule based algorithm" to create a personalized digital medial display, claim 1 recites "performing a rule based substitution of one or more of the digital media assets from the first set of digital media assets with one or more of the digital media assets from the second set of digital media assets to create a user specific set of digital media assets." '030 patent at 22:7-11. In opposing TikTok's Rule 12(b)(6) motion before Judge Gonzalez Rogers, 10Tales argued that claim 1 requires the use of a rule based "algorithm." *See* Dkt. No. 206-1 at 23:13-24:14. However, in the claim construction proceedings before this Court, 10Tales did not argue for such a construction (*see* Dkt. No. 167 at 21), and the Court did not construe the term that way. The Court determined that the "performing" element did not require construction, observing only that "rule based" refers to "a substitution that happens by

application of a rule, rather than on the basis of some discretionary or subjective determination." Dkt. No. 204 at 25. Indeed, 10Tales confirmed during the claim construction hearing that it did not dispute the Court's interpretation of this element. Dkt. No. 193 at 136:16-137:1, 140:20-141:18, 143:18-22. Thus, nothing in the claim requires a particular algorithm, nor is any such algorithm described in the specification.

In sum, the system of claim 1 of the '030 patent recites generic and conventional computer components, with programming instructions for performing a method with purely functional steps. While "[s]oftware can make non-abstract improvements to computer technology just as hardware improvements can, and sometimes the improvements can be accomplished through either route," *Enfish, LLC*, 822 F.3d at 1335, none of 10Tales's asserted "improvements" demonstrates an improvement to computer functionality. *See TecSec, Inc. v. Adobe Inc.*, 978 F.3d 1278, 1293 (Fed. Cir. 2020) ("We have found claims directed to such eligible matter in a number of cases where we have made two inquiries of significance here: whether the focus of the claimed advance is on a solution to *a problem specifically arising in the realm of computer networks or computers*, and whether the claim is properly characterized as identifying *a specific improvement in computer capabilities or network functionality, rather than only claiming a desirable result or function*.") (internal quotations and citations omitted) (emphasis added). 10Tales asserts that its claimed invention "improved upon conventional systems with an improved approach to personalizing digital media content," i.e., "claim 1 recites that specific information from a source external to the user's digital media presentation is obtained by the system to yield a desired result—a personalized digital media presentation that will have a strong impact on the user[.]" Dkt. No. 215 at 16. However, nothing in claim 1 demonstrates how that result improves the operability or capability of the recited system, beyond providing a user with personalized content using generic processes and conventional computer components.

Thus, the present case is readily distinguishable from those in which the asserted claims were directed to non-abstract improvements to the functionality of a computer or network platform itself. *See TecSec, Inc.*, 978 F.3d at 1295-96 (claims "directed to improving a basic function of a computer data-distribution network, namely network security," where claim language and

specification described a specific method of managing access to objects using multiple levels of encryption); *CardioNet, LLC v. InfoBionic, Inc.*, 955 F.3d 1358, 1370 (Fed. Cir. 2020) (claims "directed to a specific technological improvement—an improved medical device that achieves speedier, more accurate, and clinically significant detection of two specific medical conditions out of a host of possible heart conditions."); *Finjan, Inc. v. Blue Coat Sys. Inc.*, 879 F.3d 1299, 1304-05 (Fed. Cir. 2018) (claims directed to "'behavior-based' approach to virus scanning" that "employs a new kind of file that enables a computer security system to do things it could not do before," "enables more flexible and nuanced virus filtering," and "allows access to be tailored for different users and ensures that threats are identified before a file reaches a user's computer."); *Core Wireless Licensing S.A.R.L. v. LG Elecs., Inc.*, 880 F.3d 1356, 1362-63 (Fed. Cir. 2018) (claims directed to "a particular manner of summarizing and presenting information in electronic devices," resulting in "an improved user interface for electronic devices, particularly those with small screens" and "improves the efficiency of using the electronic device"); *Enfish, LLC*, 822 F.3d at 1337-38 (claims "specifically directed to a *self-referential* table for a computer database" that "functions differently than conventional database structures" and "achieves other benefits over conventional databases, such as increased flexibility, faster search times, and smaller memory requirements."); *DDR Holdings, LLC v. Hotels.com, L.P.*, 773 F.3d 1245, 1257-59 (Fed. Cir. 2014) (patent "recite[d] a specific way" of creating a hybrid web page to resolve a "particular Internet-centric problem").

The '030 patent, by contrast, more resembles the patent at issue *Freestream Media Corp.* and "does nothing more than implement a computer to achieve the abstract idea of providing" personalized digital media content to a user. *Freestream Media Corp.*, 996 F.3d at 1365; *see id.* at 1358-59, 1362 (claims reciting a system using a "relevancy matching server" to deliver targeted data based on "content identification data" and a "relevancy factor" are "directed to the abstract idea of 'targeted advertising.'"). In *Free Stream Media Corp.*, the patentee asserted that the claimed invention "allows devices on the same network to communicate where such devices were previously unable to do so." *Id.* at 1363. The Federal Circuit concluded that this was not sufficient because "the asserted claims do not at all describe how that result is achieved" and "do

not recite an improvement in computer functionality." *Id*. at 1363-64. Similarly here, 10Tales asserts that the '030 patent recites "a technological improvement over conventional systems for presenting personalized digital media to a user" to "yield a desired result—a personalized digital media presentation that will have a strong impact on the user[.]" Dkt. No. 215 at 16, 17. However, claim 1 does not describe an improvement in computer functioning; nor does it describe, except at a very high level, how that desired result is achieved. *See Chewy, Inc.*, 94 F4th at 1365, 1366 (claims that "broadly recite correlating advertisements with search results using a generic process" are abstract and "[e]ven accepting that the claimed invention improves the specificity and relevancy of online advertisements, this is at most an improvement to the abstract concept of targeted advertising wherein a computer is merely used as a tool.") (internal quotations and citation omitted); *Trinity Info Media*, 72 F.4th at 1363 (claims for poll-based networking system matching users are directed to "abstract idea of matching based on questioning, not an improvement to computer technology."); *Affinity Labs of Texas*, 838 F.3d at 1268, 1269-71 (claim "directed to a network-based media system with a customized user interface," written in largely functional terms, is directed to abstract "concept of delivering user-selected media content to portable devices"; "[l]ike the basic concept of tailoring content to a user, . . . the basic concept of customizing a user interface is an abstract idea.").

Other cases have similarly found that personalizing information based on information about a consumer or user is an abstract idea. *See, e.g., In re Morsa*, 809 F. App'x 913, 917 (Fed. Cir. Apr. 10, 2020) (claim reciting "a 'process' that 'transmit[s]' a 'request for demographic and/or psychographic user information' to the user and then 'sav[es]' the user information on the system to match the user to a specific advertiser."); *MyMail, Ltd. v. ooVoo, LLC*, No. 2020-1825, 2020-1826, 2021 WL 3671364, at *5 (Fed. Cir. Aug. 19, 2021) (claim that recites "collecting information" by sending data "from a user device to a server," "analyzing information by, at the server, determining from the collected information whether the user device should receive toolbar update data," and "presenting the results by, at the user device, receiving the toolbar update data, updating the toolbar automatically, and displaying the updated toolbar."); *Elec. Power Grp., LLC v. Alstom S.A.*, 830 F.3d 1350, 1354 (Fed. Cir. 2016) (claims directed to "gathering and analyzing

information of a specified content, then displaying the results, and not any particular assertedly inventive technology for performing those functions."); *Ultramercial, Inc. v. Hulu, LLC*, 772 F.3d 709, 715 (Fed. Cir. 2014) ("The process of receiving copyrighted media, selecting an ad, offering the media in exchange for watching the selected ad, displaying the ad, allowing the consumer access to the media, and receiving payment from the sponsor of the ad all describe an abstract idea, devoid of a concrete or tangible application."); *Blackbird Tech LLC v. Cloudflare, Inc.*, No. 17-cv-06112-VC, 2018 WL 10689659, at *1 (N.D. Cal. Feb. 12, 2018) (claim "directed to the abstract idea of monitoring a data stream and modifying that data when a specific condition is identified"); *OpenTV, Inc. v. Netflix Inc.*, 76 F. Supp. 3d 886, 893 (N.D. Cal. 2014) ("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.'").

10Tales argues that the prosecution history of the '030 patent, and proceedings before the Patent Trial and Appeal Board ("PTAB") concerning TikTok's petition for *inter partes* review ("IPR") of the '030 patent, confirm that claim 1 represents an improvement over the prior art.[2] In particular, 10Tales notes that the prior art did not teach "retrieving user social network information from at least one source external to the presented first composite digital media display, wherein the user social network information contains one or more user attributes." Dkt. No. 215 at 22 (citing Dkt. No. 215-3). Additionally, 10Tales notes that in the claim construction proceedings before this Court, TikTok's expert, Dr. Bovik, opined that "the process for extracting a user attribute from a user's interaction with a networked community would not have been well known in the art[.]" Dkt. No. 185-3 ¶ 163; *see also* Dkt. No. 215 at 22 n.4. However, "[t]he 'novelty' of any element or steps in a process, or even of the process itself, is of no relevance in determining whether the subject matter of a claim falls within the § 101 categories of possibly patentable subject matter." *Diamond v. Diehr*, 450 U.S. 175, 188-89 (1981); *see also SAP Am., Inc.*, 898 F.3d at 1162 ("We may assume that the techniques claimed are [g]roundbreaking, innovative, or

[2] The Court grants 10Tales's request to take judicial notice of records from the '030 patent prosecution history and IPR proceedings. For the reasons discussed above, the Court nonetheless concludes that the purpose for which 10Tales cites those records is irrelevant to the resolution of the present motion.

even brilliant, but that is not enough for eligibility. Nor is it enough for subject-matter eligibility that claimed techniques be novel and nonobvious in light of prior art, passing muster under 35 U.S.C. §§ 102 and 103.") (internal quotations and citations omitted); *Affinity Labs of Texas*, 838 F.3d at 1270 n.3 (expert statement re novelty properly disregarded because "the eligibility finding does not turn on the lack of novelty of the claim; it turns on the fact that the claim is drawn to any embodiment of an abstract idea.").

As claim 1 is directed to the abstract idea of providing personalized digital media content to a user, the Court now turns to the *Alice* step two analysis.

B. *Alice* Step Two

At this second step, the Court "analyze[s] whether there is an 'inventive concept' that takes the claim into the realm of patent eligibility." *Free Stream Media Corp.*, 996 F.3d at 1361 (citing *Alice*, 573 U.S. at 217-219). Specifically, the Court "determine[s] whether the claim elements, individually and as an ordered combination, contain an inventive concept, which is more than merely implementing an abstract idea using well-understood, routine, [and] conventional activities previously known to the industry." *Chewy, Inc*, 94 F.4th at 1365 (internal quotations and citation omitted). In the context of claimed computer-implemented innovations, "the mere recitation of a generic computer cannot transform a patent-ineligible abstract idea into a patent-eligible invention." *Alice Corp. Pty.*, 573 U.S. at 223.

TikTok contends that claim 1 does not recite anything more than a conventional application of the abstract idea of personalizing content, using generic computer components. 10Tales maintains that the elements of claim 1, considered individually and as an ordered combination, demonstrate that the claim is directed to patent-eligible matter.

According to 10Tales, the innovation of the '030 patent is that the claimed system retrieves information about a user from user social network information, as reflected in the "retrieving" step of claim 1: "retrieving user social network information from at least one source external to the presented first composite digital media display, wherein the user social network information contains one or more user attributes." *See* '030 patent at 21:13-16; *see also* Dkt. No. 215 at 16. As construed by the Court, the term "user social network information" refers to "the *kind* of

information being retrieved, i.e. 'information derived from a user's interactions in an online community,'" and "[i]n context, the plain and ordinary meaning of 'source external' simply means that the claimed information is retrieved from a source [that] is other than the presented first composite display." Dkt. No. 204 at 22. The Court construed the term "retrieving user social network information from at least one source external to the presented first composite digital media display . . ." to mean "retrieving user social network information from at least one source other than the presented first composite digital display. *Id*. The "retrieving" element is thus recited as a generalized step for retrieving a kind of user information, using conventional computer technology, without reciting a specific or innovative mechanism for doing so. As discussed above, nothing in claim 1 or the specification indicates that the "retrieving" limitation requires improved computer technology, as opposed to available computer components and existing functions, as tools in carrying out the recited method steps. The Court finds nothing inventive in the "retrieving" step of claim 1. *See Alice*, 573 U.S. at 222 ("Simply appending conventional steps, specified at a high level of generality" is "not *enough* to supply an inventive concept") (internal quotations and citation omitted); *Free Stream Media Corp.*, 996 F.3d at 1366 ("But even assuming the bypassing of mobile device security mechanisms had not been done before, there is nothing inventive disclosed in the claims that permits communications that were previously not possible. Indeed, the claims simply recite the use of generic features, as well as routine functions, to implement the underlying idea."); *Internet Patents Corp. v. Active Network, Inc.*, 790 F.3d 1343, 1349 (Fed. Cir. 2015) ("The additional limitations of these dependent claims do not add an inventive concept, for they represent merely generic data collection steps or siting the ineligible concept in a particular technological environment."). While 10Tales maintains that retrieving user social network information was not known in the art, that alone is not sufficient to transform a patent-ineligible abstract idea into a patent-eligible invention. *See Ultramercial, Inc.*, 772 F.3d at 716 ("That some of the eleven steps were not previously employed in this art is not enough—standing alone—to confer patent eligibility upon the claims at issue.").

Other individual claim elements similarly recite routine activity using the same generic computer components, and do not provide a specific mechanism for achieving the recited results.

For example, the first three elements[3] and the last two elements[4] of claim 1 recite "creating" a first and second composite digital media display and "presenting" them to a user "via a display server." As construed by the Court, the term "creating, from the first set of digital media assets, a first composite digital media display" means "creating, from the first set of digital media assets, a first composite digital media display that combines two or more digital media assets." Dkt. No. 204 at 12-13. Similarly, the term "creating, from the user specific digital media assets, a user specific composite digital media display" simply means "creating, from the user specific digital media assets, a user specific composite digital media display that combines two or more digital media assets." *Id*. at 13. The Court construed the term "display server" to mean "a 'server' in a *conventional* server-client model as understood by a person of ordinary skill in the art at the time of the invention, such that 'server' can be either a computer program, a physical computer capable of running a computer program, or a physical computer running a computer program." Dkt. No. 204 at 16 (emphasis added). The specification confirms that the claimed invention is intended for use "with any digital viewing or listening device," including "a Personal Computer (PC)," "laptop computer," "Personal Digital Assistants (PDAs), wireless telephones, MP3 players, and any other device utilized to view or listen to video and audio signals and that can carry on two way communications." *See* '030 patent at 20:38-44.

The "selecting,"[5] "monitoring,"[6] and "performing a rule based substitution"[7] steps

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[3] *See* '030 patent at 21:7-12 ("identifying a first set of digital media assets stored on the computer-readable storage medium," "creating, from the first set of digital media assets, a first composite digital media display," and "presenting to the user via a display server, the first composite digital medial display.").

[4] *See* '030 patent at 22:12-15 ("creating, from the user specific digital media assets, a user specific composite digital media display" and "presenting to the user via the display server, the second composite digital media display.").

[5] *See* '030 patent at 21:17-22:2 ("selecting, based on the user attributes in the social network information, a second set of digital media assets, wherein the second set of digital media assets is associated with one or more user attributes found in the user social network information[.]").

[6] *See* '030 patent at 22:3-6 ("monitoring the first composite digital media display for the presence of a trigger, wherein the trigger indicates a personalization opportunity in the first set of digital media assets[.]").

[7] *See* '030 patent at 22:7-11 ("performing a rule based substitution of one or more of the digital

similarly recite generalized result-based processes without a specific mechanism or method for accomplishing the recited result. As construed by the Court, a "trigger" is simply "an indication of a personalization opportunity" and the phrase "monitoring the first composite digital media display for the presence of a trigger" means "monitoring the first composite digital media display for the presence in the display of an indication of a personalization opportunity." Dkt. No. 204 at 24. While 10Tales contends that the claimed invention improved on conventional systems by using a "rule based algorithm" (*see* Dkt. No. 215 at 16), as discussed above, that asserted "improvement" is not in claim 1. Further, as construed by the Court the term "'rule based' simply refers to a substitution that happens by application of a rule, rather than on the basis of some discretionary or subjective determination." Dkt. No. 204 at 25.

In sum, each of the elements of claim 1 recite conventional steps and computer components, in general functional terms, that are insufficient to provide an inventive concept. *See Elec. Power Grp. LLC*, 830 F.3d at 1355 ("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. . . . We have repeatedly held that such invocations of computers and networks that are not even arguably inventive are insufficient to pass the test of an inventive concept in the application of an abstract idea.") (internal quotations and citations omitted); *see also MyMail, Ltd.*, 2021 WL 3671364 at *7 (claim elements reciting "a user Internet device" and "a server" performing "routine functions like 'displaying a toolbar comprising one or more buttons,' 'sending a revision level' from the device to the server, 'determining' at the server whether the device needs an update, 'receiving' at the device 'toolbar update data,' and 'initiating' at the device 'an operation to update the toolbar data," "are either generic computer components or routine activity" that "are insufficient to supply an inventive concept."). *Cf. CosmoKey Sols. GmbH & Co. KG v. Duo Security LLC*, 15 F.4th 1091, 1098, 1099 (Fed. Cir. 2021) (patent claims satisfy inventive concept requirement where "claims and specification recite a specific improvement to authentication that increases security,

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media assets from the first set of digital media assets with one or more of the digital media assets from the second set of digital media assets to create a user specific set of digital media assets[.]").

prevents unauthorized access by a third party, is easily implemented, and can advantageously be carried out with mobile devices of low complexity" and "the patent specification describes how the particular arrangement of steps in claim 1 provides a technical improvement over conventional authentication methods.").

There is also nothing inventive about the ordered combination of these elements. While "an inventive concept can be found in the non-conventional and non-generic arrangement of known, conventional pieces," *BASCOM Global Internet Servs., Inc. v. AT&T Mobility LLC*, 827 F.3d 1341, 1350 (Fed. Cir. 2016), the elements of claim 1 are organized in an entirely conventional way—i.e., creating and presenting a first composite digital media display; then a "selecting" of a "second set of digital media assets" "based on the user attributes in the [user] social network information" retrieved in an earlier step; "monitoring the first composite digital media display for the presence of a trigger . . . indicat[ing] a personalization opportunity," "performing a rule based substitution . . . to create a user specific set of digital media assets," and "presenting to the user . . . the second composite digital media display." *See* '030 patent at 21:7-22:15.

10Tales asserts that when "taken together as an ordered combination," claim 1 "recite[s] an invention that is not merely the routine or conventional use of the Internet." Dkt. No. 215 at 16 (quoting *DDR Holdings*, 773 F.3d at 1259). However, 10Tales did not explain how or why that is so.

In sum, claim 1 recites generic components that are used and combined in conventional ways within a particular technological environment, none of which rises to an inventive concept. Accordingly, the Court concludes that none of the elements of claim 1, considered individually or as an ordered combination, constitute an inventive concept sufficient to transform the claimed abstract idea of providing personalized digital media content based on user attributes from user social network information into patent-eligible subject matter under § 101.

C. Leave to Amend

In deciding whether to grant leave to amend, the Court must consider the factors set forth by the Supreme Court in *Foman v. Davis*, 371 U.S. 178 (1962), and discussed at length by the

Ninth Circuit in *Eminence Capital, LLC v. Aspeon, Inc.*, 316 F.3d 1048 (9th Cir. 2009). A district court ordinarily must grant leave to amend unless one or more of the *Foman* factors is present: (1) undue delay, (2) bad faith or dilatory motive, (3) repeated failure to cure deficiencies by amendment, (4) undue prejudice to the opposing party, and (5) futility of amendment. *Eminence Capital*, 316 F.3d at 1052.

For the reasons discussed above, TikTok has shown that claim of the '030 patent is directed to patent-ineligible subject matter. In a summary footnote at the very end of its opposition brief, 10Tales requests that if the Court determines that the '030 patent is directed to ineligible matter, then 10Tales should be given "leave to amend its First Amended Complaint to add facts that would survive a pleadings challenge[.]" Dkt. No. 215 at 25 n.5. 10Tales cites *Aatrix Software, Inc. v. Green Shades Software, Inc.*, 882 F.3d 1121, 1128 (Fed. Cir. 2018) for the general proposition that a district court abuses its discretion if it denies leave to amend where the complaint's allegations, "if accepted as true, contradict the district court's conclusion that the claimed combination was conventional or routine." As discussed above, 10Tales's allegations regarding patent eligibility are conclusory, and there are no factual allegations from which the Court plausibly may infer that claim 1 is non-abstract or inventive. On this record, the Court also finds no genuine disputes about the underlying facts material to the § 101 inquiry. Moreover, 10Tales does not explain what it could do through an amendment to cure a defect in patent eligibility. Because 10Tales has not identified specific facts that would change the Court's analysis, the Court finds no basis to conclude that there are additional facts that could be alleged on a further amendment to cure the defect in patent eligibility. Accordingly, 10Tales's request for leave to amend is denied. *Trinity Info Media*, 72 F.4th at 1361 & n.3.

IV. CONCLUSION

Based on the foregoing, TikTok's motion for judgment on the pleadings based on patent ineligibility under 35 U.S.C. § 101 is granted without leave to amend. The Clerk shall enter

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judgment accordingly and close this file.

IT IS SO ORDERED.

Dated: April 2, 2024

Virginia K. DeMarchi
United States Magistrate Judge

United States District Court
Northern District of California