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Appendix A

NOTE: This disposition is nonprecedential.

**UNITED STATES COURT OF APPEALS
FOR THE FEDERAL CIRCUIT**

IMPACT ENGINE, INC.,

Plaintiff-Appellant,

v.

GOOGLE LLC,

Defendant-Appellee.

2022-2291

Appeal from the United States District Court for the
Southern District of California in No. 3:19-cv-01301-
CAB-DEB, Judge Cathy Ann Bencivengo.

Decided: July 3, 2024

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Before REYNA, TARANTO, and HUGHES, *Circuit Judges*.

Opinion for the court filed by *Circuit Judge* TARANTO.

Opinion concurring-in-part, dissenting-in-part filed by *Circuit Judge* REYNA.

TARANTO, *Circuit Judge*.

In the action now before us, Impact Engine, Inc. alleges infringement by Google LLC of a family of Impact Engine’s patents. Several orders of the district court are central to addressing the disputes on appeal. First, the district court entered two claim-construction orders: one that, *e.g.*, construed “compiling engine” to reflect the ordinary meaning of “compiler,” *Impact Engine, Inc. v. Google LLC*, No. 19-cv-01301, 2021 WL 5541942, at *4 (S.D. Cal. Feb. 5, 2021) (*First Claim Construction Order*); the other that construed “project viewer” elements in several asserted claims to be means-plus-function elements under 35 U.S.C. § 112(f), *Impact Engine, Inc. v. Google LLC*, No. 19-cv-01301, 2021 WL 9525522, at *3 (S.D. Cal. May 14, 2021) (*Supplemental Claim Construction Order*). Second, acting under Fed. R. Civ. P. 12(c), the district court held some asserted claims to be invalid under 35 U.S.C. § 101. *Impact Engine, Inc. v. Google LLC*, No. 19-cv-01301, 2021 WL 5234415, at *3–6 (S.D. Cal. Nov. 10, 2021) (*Rule 12(c) Order*). Third, acting under Fed. R. Civ. P. 56, the district court held that (a) additional asserted claims are invalid under § 101, (b) Impact Engine had presented no basis on which a reasonable

jury could find infringement of two asserted claims containing the “project viewer” phrase, and (3) one asserted claim is invalid under § 112(a)’s written-description and enablement requirements. *Impact Engine, Inc. v. Google LLC*, 624 F. Supp. 3d 1190, 1193–96 (S.D. Cal. 2022) (*Summary Judgment Order*). Under those rulings, all asserted claims were either invalid or not infringed, so the district court entered final judgment for Google. Impact Engine appeals. We have jurisdiction under 28 U.S.C. § 1295(a)(1), and we affirm.

I

A

Seven patents are at issue here: U.S. Patent No. 7,870,497 and six others that, descending from the ’497 patent through continuation applications, have the same specification, named inventors, and April 2005 priority date as the ’497 patent.¹ J.A. 29–215. The patents describe and claim “systems and methods for creating, editing, sharing and distributing high-quality, media-rich web-based communications”—*i.e.*, “presentation[s], banner advertisement[s], website[s] or brochure[s]”—which “can be created in a layered fashion that integrates text, colors, background

¹ By the time the district court entered final judgment, Impact Engine asserted the following sixteen claims from seven patents: claims 1 and 9 of U.S. Patent No. 7,870,497; claims 14, 16, 22, and 23 of U.S. Patent No. 10,565,618; claims 1, 7, and 12 of U.S. Patent No. 10,068,253; claims 14 and 18 (both dependent on claim 1) of U.S. Patent No. 8,930,832; claims 4, 21, and 25 (all dependent on claim 1) of U.S. Patent No. 9,361,632; claim 1 of U.S. Patent No. 8,356,253; and claim 30 of U.S. Patent No. 10,572,898. Impact Engine Opening Br. at 15.

patterns, images, sound, music, and/or video.” ’497 patent, col. 1, lines 13–14, 30–35. The specification explains that such communications, in the prior art, were developed by a “professional graphic designer,” “typically part of a professional agency,” and that hiring such professionals was “usually cost-prohibitive for small enterprises . . . and can be unnecessarily costly for larger enterprises.” *Id.*, col. 1, lines 15–20. The specification describes, as a simplifying and cost-lowering advance, internet-accessible “software as a service” (SaaS) that “automates the process of creating and distributing professional quality, media-rich communications” in a “logical step-by-step, start-to-finish process that requires no programming intervention” and instead involves “auto-determining the ‘look and feel’ [and/or ‘content’] of a communication based on a series of interview questions and/or other meta data.” *Id.*, col. 1, lines 24–26, 43–44; *id.*, col. 2, lines 12–18, 49–50. The principal SaaS system described and claimed in the asserted patents is a “communication builder engine” that “includes a project builder . . . for generating a project viewer . . . via which a user can view and assemble various media components or assets into an integrated communication” and that “further includes a media repository . . . for storing communication project templates, media assets, communication project metadata, and any other data resources.” *Id.*, col. 3, lines 9–15; *see also id.*, col. 2, line 65, through col. 3, line 29; *id.*, fig.1.

Claims 1 and 9 of the ’497 patent and claim 30 of the ’898 patent are representative for purposes of appeal:

'497 patent, claim 1. A multimedia communication system comprising:

a media repository storing communication project templates and media assets of a number of content types, the project templates and media assets being accessible by a graphical user interface on a client computer via a network; and

a project builder providing the graphical user interface for the client computer via the network for local display of the graphical user interface on the client computer, the graphical user interface comprising controls to receive user input for selecting at least one communication project template from the media repository and one or more media assets, and assembling a communication based on the at least one communication project template, the project builder further including an interactive interview for display on the graphical user interface, the interactive interview providing a plurality of questions to a user for eliciting a user response pertaining to user preferences, and further receiving the user preferences about the at least one communication project template and one or more media assets to assemble the communication.

'497 patent, claim 9. A multimedia communication system in accordance with claim 1, further comprising a project viewer that renders an assembled communication and transmits the rendered

communication via the network to the client computer for viewing in the graphical user interface.

'898 patent, claim 30. An online advertisement generation system for autonomously generating and broadcasting a communication to a graphical user interface of a recipient device, the communication capable of being rendered, the online advertisement generation system comprising:

a media repository for storing media content comprising a plurality of online advertisement templates and a plurality of media assets;

a communications system server coupled to the media repository, the communications system server being connectable to an internet network, the communications system server being configured for receiving, via the internet network, one or more of user data, keyword data, and geographic data, and comprising:

an advertisement generation engine for autonomously generating the communication, the advertisement generation engine for accessing the media repository and selecting, based on one or more of the user data, keyword data, and geographic data, at least one of the plurality of online advertisement templates and at least one of the plurality of media assets to generate the communication, the communication including a collection of slides comprising a grouping of design layers, design elements, and content containers;

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a compiling engine for integrating the at least one selected media asset with the at least one selected online advertisement template, and for grouping the design layers, design elements, and content containers into the collection of slides so as to generate the communication capable of being rendered in a manner so as to be content specific to the user data, keyword data, and geographic data; a formatting engine for formatting the communication; and

a distribution engine wherein once the communication is generated and formatted, the communications system server autonomously broadcasts the one or more communications via the distribution engine to the recipient device so as to be rendered at the graphical user interface thereof, the slides being displayable in an auto-play on or an auto-play off format.

B

In July 2019, Impact Engine filed a complaint against Google in the United States District Court for the Southern District of California alleging that Google was and is infringing six of Impact Engine's patents, J.A. 280–307, and in March 2020, Impact Engine added allegations of infringement of two more patents from the '497 patent family, J.A. 1250–80. As relevant here, the litigation produced rulings on claim construction, the invalidity of several asserted claims under § 101, infringement of certain surviving claims, and the invalidity of one claim under § 112.

The district court entered two claim-construction orders of relevance to this appeal. In a February 2021 order, the district court construed the “compiling engine” claim phrase—relying on the agreed-on “commonly understood meaning” of “compiler” (as used in the specification) to one “in the computer arts at the time the patent was filed”—as a program that does “back-end processing of source code into machine or object code.” *First Claim Construction Order*, at *4. In the same order, the district court construed the “project builder” claim phrase as “server-side software and hardware that obtains user information, selects appropriate template(s) and asset(s) and obtains user formatting and transmission information,” noting that “program constructs” that “provide this function of the system would be tools familiar to one of skill.” *Id.* at *4–5.

In May 2021, the district court issued a supplemental claim-construction order addressing limitations containing the phrase “project viewer.” The court explained that the “claims and the specification describe the patents’ Project Viewer limitation as much more than an application to display a file created by another application.” *Supplemental Claim Construction Order*, at *3. Rather, “the functions performed by the Project Viewer” across the asserted claims “include rendering [serializing] the communication [i.e., collection of slides]; displaying slides in auto-play on or auto-play off modes; sending the communication to the client computer; [and] allowing the user to view templates and media assets.” *Id.* (first two alterations in original). In particular,

rendering is something the project viewer does to material provided to the project viewer by the project builder (project slides and other content), and “render[ing]” means “serializing the project slides and content into a format that can be stored or transmitted.” *Id.* at *1; *see id.* at *2 (“The Project Viewer renders, or serializes, the communication using the selected templates and assets provided by the Project Builder into the collection of slides and transmits or sends the rendered communication to the client user for viewing and editing.”); ’497 patent, col. 4, lines 27–30 (“The project viewer . . . is an application that renders or ‘serializes’ the communication project slides and content, and provides them with functionality.”).

Because a “project viewer” performs more than display functions, the court concluded, “project viewer” would not be understood by a relevant artisan as itself identifying a structure. *Supplemental Claim Construction Order*, at *3 (emphasizing the lack of evidence that “known ‘viewer’ applications” could “render or serialize the communication project slides and provide them with functionality as described by the patents”). Accordingly, the presence of “project viewer” in relevant claims, accompanied by identification of functions it must perform, made the “project viewer” element at issue a means-plus-function element under 35 U.S.C. § 112(f). *Id.* The district court then stated that, in the aggregate, the corresponding “structures disclosed to perform the functions of the Project Viewer are described at Col. 4:27 through Col. 9:19.” *Id.*

In November 2021, the district court, acting on Google’s motion under Fed. R. Civ. P. 12(c) (framed and treated as a motion to dismiss), held that claims 14, 16, 22, and 23 of the ’618 patent and claim 1 of the ’497 patent—none of which contain “project viewer” language—are invalid under 35 U.S.C. § 101. *Rule 12(c) Order*, at *3–6, *8. The district court reasoned that those claims “are directed at the abstract idea of a system for generating customized or tailored computer communications based on user information,” *id.* at *4 (citing *Intellectual Ventures I LLC v. Capital One Bank (USA)*, 792 F.3d 1363, 1369–70 (Fed. Cir. 2015)), and “recite only generic computer components functioning in their known conventional manner,” which “does not amount to inventive concept,” *id.* at *6; *see also id.* at *5 (first citing *Alice Corp. v. CLS Bank International*, 573 U.S. 208, 225–26 (2014); and then citing *Intellectual Ventures I LLC v. Symantec Corp.*, 838 F.3d 1307, 1316 (Fed. Cir. 2016)).

In August 2022, the district court granted summary judgment to Google on the remainder of Impact Engine’s asserted claims, disposing of each remaining asserted claim under one of three rationales.

Certain remaining claims recite both a “project builder” that generates a communication and a “project viewer” that merely sends or displays, but does not “render,” the communication: claims 1, 7, and 12 of the ’8,253 patent; claims 1, 14, and 18 of the ’832 patent; and claims 1, 4, 21, and 25 of the ’632 patent. For those

claims, the district court granted summary judgment of invalidity under § 101 for reasons similar to those expressed in its Rule 12(c) opinion. *Summary Judgment Order*, at 1194–96. The court reasoned that “in the scope of these asserted claims,” the project viewer “operate[s] in its known and familiar capacity,” which does not amount to an inventive concept. *Id.* at 1194–95; *see also Supplemental Claim Construction Order*, at *3 (distinguishing the project viewer’s disclosed function “to render or serialize the communication project slides and provide them with functionality as described by the patents” as potentially nonconventional in the art, in contrast with the routine and well-known function of “display[ing] a file created by another application”).

b

For claim 9 of the ’497 patent and claim 1 of the ’6,253 patent, each of which requires the “project viewer” to “render” a communication, the district court granted summary judgment of noninfringement. Impact Engine does not dispute that those claims are materially similar for present purposes, that the “project viewer” language is means-plus-function language, or that the analysis is properly focused on the “render” function those claims require the “project viewer” to perform. Accordingly, for its infringement case, Impact Engine had to identify structure in the specification—here, algorithms for what is undisputedly software—corresponding to the claimed rendering function.

Impact Engine relied on the analysis provided by its expert, Dr. Wicker. In its summary-judgment briefing, Impact Engine stated that “[t]he Court left it

to the parties—and their experts—to determine which of those disclosed structures are *necessary* to perform each claimed function.” J.A. 9856 (emphasis in original). Impact Engine explained that Dr. Wicker had therefore performed an infringement analysis that “organized the [five-column specification] passage identified by the Court [in the *Supplemental Claim Construction Order*] into nine algorithmic structures” and then “identified which structures are necessary to perform each claimed function.” J.A. 9856 (citing J.A. 8352–54 ¶¶ 250–51, 253–54; J.A. 8393 ¶ 296; J.A. 8486 ¶ 379). Dr. Wicker asserted that, for the project viewer’s rendering functionality, the corresponding structure consisted of three of the nine algorithmic structures he had identified, and those three were located in aggregate at fifteen lines of column 4 of the ’497 patent, namely lines 27–42: “(1) receiving a project object as input, the project object containing information necessary for rendering; (2) loading and interpreting the project object; [and] (3) determining a load sequence for the communication project.” J.A. 8352–53 ¶¶ 250, 253.

The district court held that Impact Engine had “based its infringement analysis on a construction that does not comport with the Court’s claim construction” and therefore “[could not] sustain its burden to prove infringement.” *Summary Judgment Order*, at 1194. The district court noted that it had earlier “identified a significant portion of the specification that describes how the project viewer renders a communication based on the user’s selections, starting at Col. 4:27 through Col. 9:19” and explained that “[w]ithin these columns, the specification discloses in detail how the project viewer

loads the content and design elements selected by the user into containers at various layers to render a communication.” *Id.* at 1193–94 (citing ’497 patent, col. 5, line 7, through col. 8, line 59). The court then observed that “Impact Engine’s expert did not apply any of this detailed description of how the project viewer uses the information it is provided to render a communication” but instead relied for the rendering functionality only on one paragraph in column 4. *Id.* at 1194. The district court concluded, however, that all the cited passage discloses is “simply receipt by the project viewer of the ‘project object,’ the information necessary for the project viewer to render the communication as configured by the end user” and that the “receipt of the information to render a communication as configured by the end user *is not the structure for the actual rendering of the communication* as required by the claims and the Court’s construction.” *Id.* (emphasis added). For that reason, the district court granted Google summary judgment of noninfringement of the two claims at issue.

c

One more claim had to be addressed: claim 30 of the ’898 patent, which recites a “compiling engine.” For that claim, the district court granted Google summary judgment of invalidity under § 112(a), citing both the enablement and written-description requirements. *Id.* at 1195. The district court explained that the specification “does not disclose any information or mechanism that would inform a person of skill in the art how a *compiler* as construed”—“a program that translates source code into machine or

object code”—also performs the claimed functions of the “compiling engine” of “group[ing] the claimed design layers, design elements and content containers into a collection of slides to generate a communication.” *Id.* at 1195 (emphasis added).

II

On appeal, Impact Engine presents three issues for our review. First, Impact Engine challenges the district court’s holding that several asserted claims are invalid for ineligibility under § 101. Second, Impact Engine challenges an aspect of the district court’s “project viewer” claim construction, particularly as it relates to the claimed “rendering” functionality, and on that basis challenges the two noninfringement determinations. Third, Impact Engine challenges the district court’s determination that claim 30 of the ’898 patent is invalid under § 112(a).

Following Ninth Circuit law, we decide *de novo* whether the Rule 12(c) judgment and summary judgment before us are correct. *OIP Technologies, Inc. v. Amazon.com, Inc.*, 788 F.3d 1359, 1362 (Fed. Cir. 2015); *Kaneka Corp. v. Xiamen Kingdomway Group Co.*, 790 F.3d 1298, 1303 (Fed. Cir. 2015); Fed. R. Civ. P. 12(c); Fed. R. Civ. P. 56(a). Subject-matter eligibility under § 101 is a legal issue that we decide *de novo* where, as here, there are no underlying material factual determinations to review. *Natural Alternatives International, Inc. v. Creative Compounds, LLC*, 918 F.3d 1338, 1342 (Fed. Cir. 2019). We review a district court’s claim construction, including identification of any corresponding structure for a means-plus-function claim, without deference to the

extent that it is based on intrinsic evidence, but we review subsidiary fact-finding for clear error. *Teva Pharmaceuticals USA, Inc. v. Sandoz, Inc.*, 574 U.S. 318, 331–32 (2015); *Williamson v. Citrix Online, LLC*, 792 F.3d 1339, 1346 (Fed. Cir. 2015). Infringement is a factual issue. *Lucent Technologies, Inc. v. Gateway, Inc.*, 580 F.3d 1301, 1309 (Fed. Cir. 2009). Invalidity under § 112(a) is a factual issue as to written description and a legal issue with subsidiary factual issues as to enablement. *Vasudevan Software, Inc. v. MicroStrategy, Inc.*, 782 F.3d 671, 682, 684 (Fed. Cir. 2015).

We conclude that Impact Engine has identified no error that warrants setting aside the district court’s judgment.

A

The district court ruled that the asserted claims invalidated as claiming patent-ineligible subject matter under § 101 are (1) “directed at the abstract idea of a system for generating customized or tailored computer communications based on user information” and (2) “recite only generic computer components functioning in their known, conventional manner” and therefore fail to recite an inventive concept. *Rule 12(c) Order*, at *4–6; *see also Summary Judgment Order*, at 1194–95. We see no error in those rulings and no need for additional claim construction to draw that conclusion.

“[W]e have explained that ‘[i]nformation as such is an intangible’; accordingly, ‘gathering and analyzing information of a specified content, then displaying the results’ without ‘any particular assertedly inventive technology for performing those

functions’ is an abstract idea.” *In re Killian*, 45 F.4th 1373, 1382 (Fed. Cir. 2022) (second alteration in original) (quoting *Electric Power Group, LLC v. Alstom S.A.*, 830 F.3d 1350, 1353–54 (Fed. Cir. 2016)), *cert. denied sub nom. Killian v. Vidal*, 144 S. Ct. 100 (2023), *reh’g denied*, 144 S. Ct. 441 (2023); *Trading Technologies International, Inc. v. IBG LLC*, 921 F.3d 1378, 1385 (Fed. Cir. 2019) (same); *Two-Way Media Ltd. v. Comcast Cable Communications, LLC*, 874 F.3d 1329, 1338 (Fed. Cir. 2017) (same); *Capital One*, 792 F.3d at 1369 (“Providing this minimal tailoring [of website information content based on user-specific information] is an abstract idea.”).

Here, the claims held ineligible are directed to an abstract idea in that well-established sense. Those claims recite systems comprising an unordered list of generically named elements (*i.e.*, “project builder,” “media repository,” “[formatting/compiling/distribution] engine”) each associated with high-level, broadly articulated, result-defined information-processing functionality. The focus of the claims is the abstract idea of processing information—turning user-provided input into user-tailored output—and not any improved concrete tools or methods by which that processing functionality is achieved. See *FairWarning IP, LLC v. Iatric Systems, Inc.*, 839 F.3d 1089, 1095 (Fed. Cir. 2016) (“Thus here, as in *Electric Power*, ‘the focus of the claims is not on . . . an improvement in computers as tools, but on certain independently abstract ideas that use computers as tools.’” (alteration in original) (quoting *Electric Power*, 830 F.3d at 1354)).

Nor do the relevant claims recite an inventive concept that transforms them into a patent-eligible application of that abstract idea. The relevant claims do not recite a specific improvement to computer components or standard functionality; they recite unordered arrangements of generic functional components that, at best, use generic computer-related components (*i.e.*, “network[s],” “graphical user interface[s],” “server[s]”) as tools in a routine and conventional sense to practice the above-defined abstract information-processing idea. *See Hawk Technology Systems, LLC v. Castle Retail, LLC*, 60 F.4th 1349, 1358–59 (Fed. Cir. 2023) (“Simply stated, “[n]othing 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.” (alteration in original) (quoting *Electric Power*, 830 F.3d at 1355)); *Symantec Corp.*, 838 F.3d at 1315 (“[T]hese claims use generic computers to perform generic computer functions.”).

The claims also do not limit the arrangement of the claimed components in any way that recites an inventive concept. Although an “inventive concept can be found in the non-conventional and non-generic arrangement of known, conventional pieces,” *BASCOM Global Internet Services, Inc. v. AT&T Mobility LLC*, 827 F.3d 1341, 1350 (Fed. Cir. 2016), the relevant claims before us merely list the constituent elements of the claimed systems without providing any concrete or specific nonconventional manner in which those constituent parts are arranged or a nonconventional mode of operation that the claimed arrangement might achieve. *See Internet*

Patents Corp. v. Active Network, Inc., 790 F.3d 1343, 1348 (Fed. Cir. 2015).

Last, for those invalidated claims reciting a “project viewer” associated with the functionality of merely sending or displaying a communication but not “rendering” it, *Summary Judgment Order*, at 1194–95, no different conclusion is warranted. Although Impact Engine asserts that the project viewer, when performing the sending/displaying functionality, “limits the claims to a ‘specific, discrete implementation’ of the allegedly ‘abstract idea,’” Impact Engine cites no material evidence demonstrating that the project viewer, in that context, performs anything other than well-known, routine, and conventional computer functionality. Impact Engine Opening Br. at 49–50 (quoting *BASCOM*, 827 F.3d at 1350). And Impact Engine’s arguments on appeal are undercut by the positions it took before (and the evidence it provided to) the district court, where Impact Engine argued that the “project viewer” (at least where no rendering functionality is required) is a well-known, routine software construct. *Compare* J.A. 7561, 12533 (Impact Engine arguing that the “project viewer” should be construed as “a known program construct that would be familiar to one of skill in the art”), *and* J.A. 7609–11 (Dr. Wicker’s report in support of Impact Engine’s proposed claim constructions, stating that a “project viewer” as used in the asserted patents would be understood by a relevant artisan as “a known programming construct”), *with* J.A. 12379–80 (Impact Engine arguing that the rendering functionality associated with the “project viewer” potentially provides an inventive concept).

B

Impact Engine next challenges the district court’s ruling, on Google’s motion for summary judgment, that Impact Engine lacked evidence to permit a reasonable finding that claim 9 of the ’497 patent and claim 1 of the ’6,253 patent, both of which claim a “project viewer” that performs the function of “render[ing]” a communication, are infringed. *Summary Judgment Order*, at 1194. Impact Engine does not challenge the conclusion that the materially indistinguishable claim elements consisting of “project viewer” with the identified “render[ing]” function are means-plus-function elements. Impact Engine Opening Br. at 51, 66–67. Nor does Impact Engine dispute that the district court’s noninfringement determination must stand *if* Impact Engine’s relied-on passages of the specification fail to supply an algorithm for carrying out the claimed rendering function under our precedents governing “special purpose computer-implemented means-plus-function limitation[s].” *Noah Systems, Inc. v. Intuit Inc.*, 675 F.3d 1302, 1312 (Fed. Cir. 2012). We conclude that the relied-on specification passages do fail to supply the required algorithm, and so we affirm on this issue without having to resolve other disputes about ultimately immaterial aspects of the course of litigation and adjudication regarding various “project viewer” claims.

On appeal, Impact Engine relies entirely on column 4, lines 27–42, as setting out the required algorithm. Impact Engine Opening Br. at 59–63, 66,

69–70; Impact Engine Reply Br. at 31–32.² That passage reads:

The project viewer, such as the project viewer 118 shown in FIG. 1, is an application that renders or “serializes” the communication project slides and content, and provides them with functionality. When the project viewer is launched, it is passed a data structure and associated software programs called the project object. The project object contains the information necessary for the communication project to render and playback as configured by the end user. Slides are represented in the project object as elements in an array. Once the project object is loaded and interpreted, the project viewer determines a load sequence for the communication project content. The project object is agnostic as to the type of file

² Although Impact Engine argues that its expert addressed other specification passages assertedly reciting other algorithmic structures for the “project viewer,” Impact Engine Opening Br. at 72–74, the only passages it relies on for the *rendering* function are those in column 4, lines 27–42, *id.* at 59, 66. Impact Engine recognizes, correctly, that the proper focus of analysis for these means-plus-function claims is on structures performing the *claimed* functions, not the “project viewer” without further qualification. *Id.* at 73 (noting that many specification details assertedly addressed by its expert are “not pertinent to any project viewer function claimed in the ’497 and ’6,253 patents”). The claims at issue for noninfringement require the rendering function. We therefore may focus on that requirement. Because we conclude that the infringement proof fails (under summary-judgment standards) regarding that requirement, and that conclusion requires no additional claim construction, we need not go further.

it is rendering and is, therefore, able to produce a wide variety of communications such as websites, dynamically created websites, Flash™ banner ads, presentations, brochures, advertisements on third party websites, and/or the like.

'497 patent, col. 4, lines 27–42. As noted, the specification proceeds beyond that paragraph to add several columns' worth of specifics, *see id.*, cols. 4–9, but Impact Engine insists on disregarding those additional descriptions and instead relying entirely on the paragraph quoted above. We therefore limit our analysis to the adequacy of that paragraph.

The paragraph is inadequate. Recognizing the need for genuine structure in the specification over and above the claimed function, we have repeatedly explained that “purely functional language, which simply restates the function associated with the means-plus-function limitation, is insufficient to provide the required corresponding structure.” *Noah Systems*, 675 F.3d at 1317; *see Blackboard, Inc. v. Desire2Learn, Inc.*, 574 F.3d 1371, 1384 (Fed. Cir. 2009); *Aristocrat Technologies Australia Pty Ltd. v. International Game Technology*, 521 F.3d 1328, 1333–35 (Fed. Cir. 2008). In this case, the specification paragraph Impact Engine relies on for the required algorithm adds nothing of substance to what the claim-expressed function of “render[ing]” the communication itself requires under the unchallenged construction of that claim term.

The district court, construing the rendering language, ruled that “render[ing]” means “serializing the project slides and content into a format that can be

stored or transmitted,” *Supplemental Claim Construction Order*, at *1, adding: “The Project Viewer renders, or serializes, the communication using the selected templates and assets provided by the Project Builder into the collection of slides and transmits or sends the rendered communication to the client user for viewing and editing,” *id.* at *2. The function-defining language of the claim, as construed, itself requires presentation of material from the project builder to the project viewer for the latter to take in and process into a form for a serial output for storage or transmission to the user for the latter’s viewing or editing. Impact Engine has provided no basis for us to read the above-quoted paragraph—including its general reference to receiving a project object from the project builder, which is loaded and interpreted by the project viewer and then processed into an output—as saying anything substantial beyond what is required by the construction of the claimed rendering function. The district court so concluded, *Summary Judgment Order*, at 1194, and we agree. As Google argues, “those sixteen lines contain no specific algorithm, just a high-level description of the rendering *function* as an introduction to the detailed algorithmic structure in the following columns.” Google Response Br. at 53. Those lines are not enough. And Impact Engine eschews reliance on the succeeding columns containing actual how-to algorithms,³ thus avoiding

³ See, e.g., ’497 patent, col. 5, lines 14–18 (“All of the complex programming needed to govern content loading, playback, and functionality has been incorporated into the project viewer and container components. The system includes a number of core design files.”); *id.*, col. 4, line 45–46 (“[T]he project viewer . . . loads the content into the containers.”); *id.*, col. 7, lines 11–13 (“The

the § 112(f) inquiry into whether the accused Google processes are equivalents to the specifics of those columns.

Arguing for a contrary conclusion, Impact Engine points to our decision in *University of Pittsburgh of Commonwealth System of Higher Education v. Varian Medical Systems, Inc.*, 561 F. App'x 934, 941 (Fed. Cir. 2014). Even aside from the fact that the decision is not precedential, *University of Pittsburgh* does not save Impact Engine's case. At most, the decision indicates that one specification passage can suffice to serve as corresponding structure if it adequately discloses structure itself, even if other passages in the specification provide additional implementation details. Here, Impact Engine's problem is that the sole specification passage it relies on is an inadequate disclosure of corresponding structure, for the reasons stated. We therefore affirm the district court's ruling that claim 9 of the '497 patent and claim 1 of the '6,253 patent are not infringed.

C

We also affirm the district court's ruling that claim 30 of the '898 patent is invalid under § 112(a) for lack of written-description support (so we need not reach the enablement issue). For the '898 patent's written description to be adequate for claim 30, the written description itself must show a relevant artisan

image component is a multimedia module that is used inside the core design files to load and display images and/or .swf files."); *id.*, col. 7, lines 36–37 ("The video component is used inside the core design files to load and display .flv video."); *id.*, col. 8, lines 8–9 ("The text component is used inside the core design files to load and display HTML formatted text.").

that the inventors were in possession of the subject matter claimed in claim 30, where “[o]ne shows that one is in possession of *the invention* by describing *the invention*, with all its claimed limitations.” *Lockwood v. American Airlines, Inc.*, 107 F.3d 1565, 1572 (Fed. Cir. 1997) (emphasis in original) (internal quotation marks omitted); see *Ariad Pharmaceuticals, Inc. v. Eli Lilly & Co.*, 598 F.3d 1336, 1351 (Fed. Cir. 2010) (en banc) (“[T]he hallmark of written description is disclosure. Thus, ‘possession as shown in the disclosure’ is a more complete formulation.”). On appeal, Impact Engine does not challenge the district court’s construction of a “compiler” or a “compiling engine” as a program for “back-end processing of source code into machine or object code.” *First Claim Construction Order*, at *4. For the written description to be adequate, therefore, it must describe the claimed “compiling engine,” under that construction, as performing the claimed functions of “integrating the at least one selected media asset with the at least one selected online advertisement template” and “grouping the design layers, design elements, and content containers into the collection of slides so as to generate the communication capable of being rendered in a manner so as to be content specific to the user data, keyword data, and geographic data.” ’898 patent, col. 19, line 39, through col. 20, line 27.

The ’898 patent’s specification nowhere contains that description. Impact Engine identifies sections of the ’898 patent’s specification that, at best, treat a “compiler” as a black-box functionality, see *Impact Engine Opening Br.* at 76–77 (citing ’898 patent, figs. 1, 3; *id.*, col. 12, lines 52–54), and otherwise provide no description of a “compiling engine” that processes

source code into machine code *and also* performs the claimed functions. To the extent that the specification refers to “compil[ing]” a communication, it is merely referring to putting “customized communication project(s) . . . into a format suitable for transmission,” not to compiling source code into machine code. ’898 patent, col. 12, lines 52–54. Impact Engine has identified nothing in the specification that describes a program that performs the defining function of a “compiling engine” (source-code-into-machine-code processing) as also performing the other functions required by claim 30. That deficiency is a sufficient basis for affirming the district court’s invalidity determination.

A contrary conclusion is not supported by the testimony of Dr. Wicker that a skilled artisan “would have understood how to implement this functionality in software.” J.A. 10494–95 ¶ 1192 (cited by Impact Engine Opening Br. at 77–78). Our precedents rejecting the notion that an enabling disclosure always suffices to meet § 112(a)’s written-description requirement make clear that, even if a skilled artisan “would have understood how to implement” the claimed functionality in software if the specification described a compiler containing the functionality, that does not mean that the written description itself demonstrates to a relevant artisan that the inventors possessed the invention of that functionality in a compiler. *See, e.g., Ariad*, 598 F.3d at 1344–45, 1351–53; *Boston Scientific Corp. v. Johnson & Johnson*, 647 F.3d 1353, 1366 (Fed. Cir. 2011); *University of Rochester v. G.D. Searle & Co.*, 358 F.3d 916, 927 (Fed. Cir. 2004); *In re Barker*, 559 F.2d 588, 591 (CCPA 1977) (“A specification may

contain a disclosure that is sufficient to enable one skilled in the art to make and use the invention and yet fail to comply with the description of the invention requirement.”). Because the specification fails to describe any instance of the claimed “compiling engine,” as construed, performing the claimed “integrating,” “grouping,” and “generat[ing]” functions, we conclude, as a matter of law, that claim 30 is invalid for lack of written-description support.

III

We have considered Impact Engine’s remaining arguments and find them unpersuasive. For the foregoing reasons, the district court’s judgment is affirmed.

AFFIRMED

NOTE: This disposition is nonprecedential.

**UNITED STATES COURT OF APPEALS
FOR THE FEDERAL CIRCUIT**

IMPACT ENGINE, INC.,

Plaintiff-Appellant,

v.

GOOGLE LLC,

Defendant-Appellee.

2022-2291

Appeal from the United States District Court for the Southern District of California in No. 3:19-cv-01301-CAB-DEB, Judge Cathy Ann Bencivengo.

REYNA, *Circuit Judge*, concurring-in-part, dissenting-in-part.

I concur in part with the majority opinion. I dissent only to the majority's non-infringement and ineligibility determinations as to the "project viewer" claims. I would vacate the district court's summary judgment grant of (1) non-infringement of claim 9 of the '497 patent and claim 1 of the '6,253 patent, and (2) Section 101 ineligibility of the claims in the '8,253 patent, '832 patent, and '632 patent, and remand for further proceedings.

I

The district court erred in granting summary judgment of non-infringement and ineligibility as to

the “project viewer” claims. These determinations were based on the district court’s legally insufficient and underdeveloped claim construction of “project viewer,” a term that no party disputes is a means-plus-function claim term. As a result, the district court left the parties, and us, with no basis to determine whether the “project viewer” claims of the ’497 patent and the ’6,253 patent are infringed by Google’s accused products and whether the “project viewer” claims of the ’8,253 patent, ’832 patent, and ’632 patent are ineligible under Section 101. I would vacate the district court’s summary judgment grants, vacate the district court’s legally insufficient claim construction order, and remand for further proceedings, to include a new construction of “project viewer” in line with our means-plus-function claim construction case law. *Playtex Prods., Inc. v. Procter & Gamble Co.*, 400 F.3d 901, 909–10 (Fed. Cir. 2005) (vacating summary judgment determination based on flawed claim construction); *Nazomi Commc’ns, Inc. v. Arm Holdings, PLC*, 403 F.3d 1364, 1366 (Fed. Cir. 2005) (same); *Liquid Dynamics Corp. v. Vaughan Co.*, 355 F.3d 1361, 1371 (Fed. Cir. 2004) (same); *Pickholtz v. Rainbow Techs., Inc.*, 284 F.3d 1365, 1374 (Fed. Cir. 2002) (same).

Our case law compels my dissent. Our case law is clear that in order to review a district court’s claim construction, this court “must be furnished sufficient findings and reasoning to permit meaningful appellate scrutiny.” *Nazomi Commc’ns*, 403 F.3d at 1371 (citation omitted); *Anchor Wall Sys., Inc. v. Rockwood Retaining Walls, Inc.*, 340 F.3d 1298, 1311 (Fed. Cir. 2003); *Gechter v. Davidson*, 116 F.3d 1454, 1458 (Fed. Cir. 1997); *Graco, Inc. v. Binks Mfg. Co.*, 60

F.3d 785, 791 (Fed. Cir. 1995); *Shuffle Master, Inc. v. VendingData Corp.*, 163 F. App'x 864, 868–69 (Fed. Cir. 2005). For a means-plus-function claim term, this means that a court must provide sufficient analysis under a two-step inquiry. First, a court must identify the claimed function. *Williamson v. Citrix Online, LLC*, 792 F.3d 1339, 1351 (Fed. Cir. 2015). Second, the court must determine what structure, if any, disclosed in the specification corresponds to the claimed function. *Id.* Stated differently, the written description must recite corresponding structure for the claimed function, otherwise the claim fails as indefinite. *Id.* at 1352. At step two, courts must clearly identify the structure in the specification that corresponds to the claimed function. A court's failure to do so may result in a construction that inadvertently and inappropriately imports structure that is not required for the claimed function. *Northrop Grumman Corp. v. Intel Corp.*, 325 F.3d 1346, 1352 (Fed. Cir. 2003) (“A court may not import into the claim features that are unnecessary to perform the claimed function.”).

The district court did not provide a sufficient analysis under this two-step inquiry in its claim construction order, resulting in a seriously deficient and confusing construction of “project viewer.” *Impact Engine, Inc. v. Google LLC*, No. 19-cv-01301, 2021 WL 9525522, at *3 (S.D. Cal. May 14, 2021) (*Claim Construction Order*). At step 1, and in one sentence, the district court summarily concluded that a “project viewer” performed the following four functions across all ten asserted “project viewer” claims: rendering a communication, displaying slides, sending a communication; and allowing a user to view templates. *Id.* This analysis was in error because it

was divorced from the claims at issue. The analysis, or lack thereof, did not specify which function was associated with each of the “project viewer” claims but rather associated all four functions with all asserted “project viewer” claims. No party disputes that the function of a “project viewer” differed depending on the claim. Appellant Br. 17; Appellee Br. 21.

The district court also erred at step 2. Rather than identify which structure in the specification corresponded to each of the four functions, the district court pointed to over three hundred lines of specification, spanning five columns, as the corresponding structure for “project viewer” across all asserted claims. *Id.* (citing ’497 patent, 4:27–9:19). Based on this summary conclusion, the parties nor this court can tell whether the five columns of structure are required for all four functions or whether certain portions of these five columns correspond to a specific function. In other words, the district court left it to the parties, and even worse, this court, to sort out which structure corresponds to each of the four functions. This is not the parties’ job nor ours. As the majority even noted at oral argument, “[w]hat the district court did here was really confusing by identifying a whole bunch of material without specifically mapping the structure in that to the functions. . . . *It is [] not [our] job to read this and figure out what the structure is in the first instance.*” Oral Arg. 16:40–17:25 (emphasis added).

In sum, the district court’s construction of “project viewer” is inadequate. The district court does not set out any basis for its reasoning sufficient for meaningful appellate review. This court must

therefore vacate and remand for further claim construction and subsequent infringement and Section 101 analyses of the “project viewer” claims.

II

The district court’s grant of summary judgment of non-infringement of the “project viewer” claims is also improper for a separate, independent reason. Setting aside its underdeveloped and insufficient construction of “project viewer,” the district court also conducted a flawed infringement analysis, providing this court with no basis to determine whether there is a genuine factual dispute as to whether Google’s accused products infringed the “project viewer” claims at issue.

An infringement analysis involves a two-step framework in which the court construes the disputed claim terms and then compares the properly construed claims to the accused devices. *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 976 (Fed. Cir. 1995). Infringement is a question of fact. *Medgraph, Inc. v. Medtronic, Inc.*, 843 F.3d 942, 949 (Fed. Cir. 2016). Thus, a grant of summary judgment of non-infringement is proper when no reasonable factfinder could find that the accused product contains every claim limitation or its equivalent. *Id.*

Following the district court’s *Claim Construction Order*, Google moved for summary judgment of non-infringement of two “project viewer” claims: claim 9 of the ’497 patent and claim 1 of the ’6,253 patent. In opposing this motion, Impact Engine proposed two separate, alternative infringement theories. The first theory relied on a construction of “project viewer” which identified only a portion of the five columns of specification as corresponding structure for the

“project viewer” claims at issue. J.A. 9857–60 (summary judgment brief); Appellant Br. 66–67. The district court rejected this theory because it did not identify all five columns of specification as structure and entered judgment of non-infringement on this ground. *Impact Engine, Inc. v. Google LLC*, 624 F. Supp. 3d 1190, 1193–94 (S.D. Cal. 2022) (*Summary Judgment Order*). In an effort to retroactively clarify its *Claim Construction Order*, the district court noted in its *Summary Judgment Order* that the required structure for all “project viewer” claims was contained in the five columns of specification at columns 4:27–9:19 of the ’497 patent. *Id.*

Impact Engine’s second theory, however, relied on a construction of “project viewer” that identified all five columns of specification as required structure. J.A. 9860–63 (summary judgment brief). Specifically, Impact Engine’s expert noted that while all five columns of specification were not necessary for the “project viewer” claims at issue, Google’s accused products embodied the claimed “project viewer” “even assuming that each of the nine algorithmic structures described in the identified columns is required to be present.” J.A. 8354 ¶255; *see also* J.A. 8352–53 ¶¶249–51; J.A. 8388–91 ¶¶283–87; J.A. 8395 ¶301; J.A. 8660–69 ¶¶512–21; J.A. 8886–90 ¶¶744–54; J.A. 10217–219 ¶¶151–52. Without explanation, the district court did not consider this second theory, or the evidence submitted by Impact Engine, which was in line with its newly announced construction of “project viewer.” *Summary Judgment Order*, at 1193–94. This was error.

Given that Impact Engine’s second theory aligned with the district court’s construction of “project viewer,” the district court should have then evaluated the evidence in the record and compared Google’s accused devices to the “project viewer” claims at issue. The district court’s failure to do so resulted in an incomplete infringement analysis, precluding a grant of summary judgment of non-infringement. Additionally, without any analysis by the district court as to this second step of the infringement analysis, this court has no basis to determine whether there is a factual dispute as to whether Google’s accused products infringe the “project viewer” claims at issue. Remand is required under these circumstances. *Nazomi Commc’ns*, 403 F.3d at 1372.¹

For these reasons, I respectfully concur in part and dissent in part.

¹ The majority errs by not acknowledging Impact Engine’s second theory of infringement. The majority mistakenly believes that Impact Engine’s infringement case turns solely on its first theory, which applied a construction of “project viewer” that relied on a subset of the five columns of specification. The majority considers Impact Engine’s proposed claim construction in the first instance, rejects it, and affirms the district court’s summary judgment grant of non-infringement. Maj. Op. at 16–20.

The majority also errs in asserting that Impact Engine does not dispute affirmance of non-infringement *if* its proposed construction of “project viewer” is incorrect. Maj. Op. at 16. Impact Engine clearly argued in its briefing on appeal and at oral argument that a remand is required in light of its second theory of infringement (which relies on all five columns of specification). Appellant Br. 72–74; Reply Br. 35–37; Oral Arg. 8:20–41; Oral Arg. 42:20–43:10.

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Appendix B

**UNITED STATES DISTRICT COURT
SOUTHERN DISTRICT OF CALIFORNIA**

Case No.: 19-CV-1301-CAB-BGS

IMPACT ENGINE, INC.,
Plaintiff,

v.

GOOGLE LLC,
Defendant.

Filed: Dec. 12, 2019

**ORDER REGARDING MOTION TO DISMISS
AND FURTHER CASE MANAGEMENT ISSUES**

Impact Engine filed a complaint against Google, LLC alleging infringement of six U.S. Patents. All the patents are based on the same specification and claim priority to a provisional application filed on April 13, 2005. [Doc. No. 1.] Google filed a motion to dismiss the complaint under Fed.R.Civ.P. 12(b)(6) contending that the asserted patents claim ineligible subject matter under 35 U.S.C. §101, and additionally moved to dismiss the allegations of willful infringement and indirect infringement as the complaint does not assert a factual basis that Google had knowledge of the asserted patents prior to the filing of the complaint. [Doc. No. 21.] Impact Engine opposed. [Doc. No. 28.]

Google submitted a reply. [Doc. No. 36.] The Court heard argument on December 12, 2019. Having considered the submissions of the parties and the arguments of counsel, the motion is denied. Applying the standards for a 12(b)(6) motion and the test established under *Alice Corp. v. CLS Bank*, 134 S.Ct. 2347 (2014), for the reasons set forth on the record, the Court finds that defendant has not established that Claim 1 of U.S. Patent No. 7,870,497 is representative of all the claims of all the patents asserted by Impact Engine to support a motion to dismiss the entire patent family based on ineligible subject matter. Moreover, defendant has not demonstrated in the context of the record properly before the court, i.e., the complaint, the patent and its history, that claim 1 of the '497 patent claims ineligible subject matter. The Court finds that plaintiff has made a plausible assertion that the claim sets forth technical elements functioning in a non-conventional or non-routine manner.

Although the motion to dismiss is denied, as stated on the record, this order does not preclude the defendant from asserting a patent eligibility challenge to one or more of the asserted claims if claim construction or further evidence beyond the pleadings support such a challenge at some future point.

Regarding, the allegations of willful and indirect infringement, the Court finds that the complaint does not set forth facts alleging that the defendant had knowledge of the patents-at-issue prior to the filing of the complaint. As these infringement contentions require knowledge of the specific patents alleged to be infringed the plaintiff failed to state a claim for willful

or indirect infringement. Plaintiff asserted, in the alternative that it would confine its allegations to the defendant's continued acts after the filing of the complaint, unless discovery reveals an earlier date of knowledge. The motion to dismiss these allegations is therefore denied, with the understanding that plaintiff's assertion of defendant's knowledge of the patents commenced with the filing of the complaint. Although knowledge alone is not enough to sustain an allegation of willful infringement, the Court finds that the facts set forth in plaintiff's complaint regarding the prior relationship between the parties presents a plausible claim that the continuing alleged infringement after notice is with willful disregard of the plaintiff's patent rights.

Defendant will file an answer to the complaint no later than **January 6, 2020**. Further as directed at the hearing, by January 6, 2020, plaintiff will make and serve an initial selection of no more than a total of **30 claims** on which it will proceed. Plaintiff will serve preliminary infringement contentions in accordance with the patent local rules on those elected claims. Plaintiff may seek to amend its infringement contentions in accordance with the patent local rules and for good cause as the case proceeds. Defendant is also directed that all prior art that the defendant may seek to rely upon should be timely produced to the plaintiff. There is no limitation on the number of prior art references the defendant may raise to support a 35 U.S.C. §102 defense. For a 35 U.S.C. § 103 defense however, the defendant is limited initially to no more than **30 combinations** of prior art for its preliminary invalidity contentions. Defendant may seek to amend its invalidity contentions in accordance with the

patent local rules and for good cause as the case proceeds.

Finally, for purposes of claim construction, at the appropriate time the parties should meet and confer to determine no more than **10 words or phrases** to present for claim construction. If either or both parties believe it is necessary for the court to consider more than 10 claim terms, a showing of good cause including the significance of the construction to the disposition of the case, must be submitted for leave to add additional terms.

IT IS SO ORDERED.

Dated: December 12, 2019

s/Cathy Ann Bencivengo
Hon. Cathy Ann Bencivengo
United States District Judge

Appendix C

**UNITED STATES DISTRICT COURT
SOUTHERN DISTRICT OF CALIFORNIA**

Case No.: 19-CV-1301-CAB-DEB

IMPACT ENGINE, INC.,
Plaintiff,

v.

GOOGLE LLC,
Defendant.

Filed: Feb. 5, 2021

CLAIM CONSTRUCTION ORDER

Plaintiff Impact Engine, Inc. alleges that defendant Google LLC infringes eight United States patents owned by Impact Engine. The asserted patents¹ are all continuations of U.S. Patent No. 7,870,497 [Doc. No. 1-3], filed April 13, 2006, and have a common specification. The parties submitted nine terms for claim construction. Following briefing in accordance with the District's local rules and this Court's scheduling order, the Court held an initial

¹ The following patents are at issue in this litigation: U.S. Patent Nos. 7,870,497; 8,356,253; 8,930,832; 9,361,632; 9,805,393; 10,068,253; 10,565,618; and 10,572,898. [Doc. Nos. 1-3 to 1-8, 53-14 and 53-15, respectively.]

claim construction hearing on October 21, 2020 [Doc. Nos. 130, 131] and a follow-up hearing on January 14, 2021. [Doc. Nos. 146, 147]. For the reasons set forth on the record at those hearings and discussed below, the Court enters the following claim constructions.

I. The Invention

The patents are directed at a Multimedia Communications System and Method for creating, editing, sharing and distributing high-quality, media-rich web-based communications. [Doc. No. 1-3, at 2 (Abstract).²] The systems and methods disclosed are intended to replace the “prior art” practice of contracting a professional graphic design or advertising agency to create works that can be distributed electronically in various formats such as a banner advertisement, website or email. Through the system the user selects and creates the communication content, edits it, and distributes the communication in a selected format to a selected audience over the Internet. [Id., at Col. 1:12-26.]

Broadly the patent describes a system in which a client user interacts with the system components through a graphical user interface connected over the Internet. The system includes a media repository that stores templates and media assets, such as music, artwork and graphics. The user interacts with the system using a project builder component which enables the user to select templates and assets from the repository to create a communication, such as an advertisement. A project viewer renders or serializes

² Document numbers and page references are to those assigned by CM/ECF for the docket entry.

the selections made by the user to render and playback the communication as configured by the user. The system's compiler then integrates the selections into a final communication that is stored in the repository. The system also includes a sharing program that enables the communication to be shared and edited by designated users. The system further includes a distribution program that formats the communication into one or more formats selected by the user and electronically delivers the formatted communication to the user's selected audience. [Id., Col. 2:65-Col. 3:29, Col. 11:36-Col. 12:37; Figs. 1-5.]

Claims 1-3 of the '497 patent are representative of many of the elements of the system and incorporate terms subject to construction.

1. A multimedia communication system comprising:

a media repository storing communication project templates and media assets **of a number of content types**, the project templates and media assets being accessible by a graphical user interface on a client computer via a network; and

a **project builder** providing the graphical user interface for the client computer via the network for local display of the graphical user interface on the client computer, the graphical user interface comprising controls to receive user input for selecting at least one communication project template from the media repository and one or more media assets, and assembling **a communication** based on the at least one communication

project template, the project builder further including an interactive interview for display on the graphical user interface, the interactive interview providing a plurality of questions to a user for eliciting a user response pertaining to user preferences, and further receiving the user preferences about the at least one communication project template and one or more media assets to assemble the communication.

2. A multimedia communication system in accordance with claim 1, further comprising a **compiler** to integrate the one or more media assets into the one of the communication project templates to generate the communication.

3. A multimedia communication system in accordance with claim 2, further comprising a **distribution program** that **formats** the communication according to selected ones of an electronic distribution **format**.

[*Id.*, at Col. 14:38-67 (terms for construction are in bold).]

Claim 18 of U.S. Patent No. 10,572,898 includes the remaining terms subject to construction.

18. An online advertisement system comprising:

a server-side media repository, the server-side media repository for storing one or more online advertisement templates and one or more media assets;

a server-side advertisement builder, the server-side advertisement builder configured for obtaining and extracting data from a data feed received by the server from a recipient computing device, the advertisement builder using the extracted data to access the server-side media repository, to select both an online advertisement template and a media asset from the media repository, and to generate one or more online advertisements based on the selected online advertisement template and the media asset, the one or more online advertisements including a collection of **slides** comprising a group of design layers, design elements, and content containers;

a server-side distribution program, the server-side distribution program configured from accessing the one or more online advertisements from the server-side advertisement builder for targeted **broadcasting** of the one or more online advertisements over the Internet, in at least one of a plurality of electronic distribution formats, the distribution program using keywords for the targeted broadcasting, the targeted broadcasting being directed to the recipient computing device in a manner so as to be rendered at the graphical user interface thereof, the slides being displayable in an auto-play on or an auto-play-off format.

[Doc. No. 53-15, at Col. 17:54-Col. 18:18 (terms for construction in bold).]

II. Terms for Claim Construction

1. Communication

The term “communication” is used throughout the claims, frequently as an adjective describing the overall system and its components as one for creating multimedia works or projects. In the context of the claims however, “a communication” is created by the system user selecting and assembling one or more templates with one or more media assets from the repository. This “communication” that is then compiled, stored, formatted and delivered is defined in the patent as “a collection of slides.” [Doc. No. 1-3, at Col. 3:30.] The slides that constitute the communication are “a grouping of design layers, design elements, and content containers.” [Id., at Col. 3:42-43; Col. 1:33-36.]

Plaintiff proposes that “communication” should be construed broadly as any “data or information for transmission.” The patent however provides a specific definition for the “communication” created in accordance with the claim limitations, which is described and supported by the disclosure. The collection of slides, i.e, a communication, can be formatted to be delivered as email, a printed presentation, a website or segments of website, or stored on a hard disk, CD-ROM or other media device. [Id., at Col. 2:65-Col. 3:3, Col. 10:62-65.] The Court adopts the definition set forth in the specification and construes “communication” as **a collection of slides.**

2. Slide

Slides are the layers that make up a communication. They consist of the design layers, design elements and content containers. [Id., Col.

3:42-43.] Each layer has certain attributes. The term “slide” as a limitation is sufficiently described in the claims and requires no further construction.

3. A number of content types

The ordinary grammatical understanding of “a number of” is many or more than one. The Court construes “a number of content types” as **more than one content type**. [Id., at Col. 2:9-12 (“multimedia files created from a wide variety of content including video, audio, images, text, raw data, Flash™ programs, software programs, web services or other media-rich content”).]

4. Broadcasting

As set forth in the record [Doc. No. 131, at 49-64], the Court construed “broadcasting” as **transmitting in a manner capable of being received by two or more recipients**.

5. Format

The communication assembled and compiled by the components of the invention can then be formatted by system’s distribution program into an electronic distribution format. The Court determined that no construction was needed for a person of skill in the art to understand what constitutes a format for electronic distribution.

6. Distribution Program

The patent describes the distribution program component of the system as a program that controls the formatting and communication protocols for distribution of a communication in such formats as a website or an email system. [Doc. No. 1-3, at Col. 3:17-21, Col. 10:61-65, Col. 12:15-26.] The Court declined

defendants' contention that "distribution program" is defined only by its function and is therefore subject to 35 U.S.C. §112, ¶6. The Court adopts plaintiff's contention that such programs for the distribution of a communication in the various formats disclosed existed at the time of filing of the application and would be familiar to one of skill in the art without further structural description.

7. Formatting Engine

The "formatting engine" claim limitation appears in Claim 30 of the '898 patent. [Doc. No. 53-15, at Col. 20:19-20 "(a formatting engine for formatting the communication").] The formatting of the communication created by the system is described as a function of the distribution program. [Doc. No. 1-3, at Col 3:19-21, Col. 12:15-26, Fig. 4.] No separate system component is identified to provide this function. [Id., at Fig. 1.] The Court adopts plaintiff's contention that the distribution program disclosed in the patent that formats a communication for distribution existed at the time of filing of the application and would be familiar to one of skill in the art and recognized as the "formatting engine" limitation without further structural description.

8. Compiler/Compiling Engine

The patent discloses that the template(s) and media asset(s) selected by the client using the project builder and rendered by the project viewer are integrated by a "compiler" into the communication that can be stored, edited and distributed. Plaintiff acknowledged that a "compiling engine" claim limitation of claim 30 of the '898 patent is the "compiler" identified in the patent at Fig. 1 (116) and

Fig. 3 (306). [Id., Col. 12:9-14.] The parties agreed that a compiler had a commonly understood meaning in the computer arts at the time the patent was filed, a program that translates source code into machine language or object code. The Court construes “compiler/compiling engine” as **back-end processing of source code into machine or object code.**

9. Project Builder/advertisement builder³

The “project builder” is the component of the system through which the user interacts to build a project, i.e., a communication. [Doc. No. 1-3, at Col. 3:9-12, Fig. 1 (108).] The project builder interviews the user to obtain information to select project templates and media assets from the media repository. [Id., at Col. 11:62-64, Col. 12:6-9, Fig. 3 (302) (304).] The project builder is connected to the project viewer and provides the selected templates and assets. [Id., at Fig. 1, Col. 4:30-34 (when the project viewer is launched it is passed the information necessary to render the communication as configured by end user).] The project viewer then renders the slides which are viewed through the project viewer by the user for review, edit and approval. [Id., at Col. 4:27-30, Col. 16:6-10.] The project builder also obtains information regarding the client’s format and recipient selections used for the formatting and transmission of the communication by the distribution program. [Id., at Col. 12:18-21, Fig. 4 (404).]

³ In the ‘898 patent the project builder component of the system is claimed as an advertisement builder and the communication created by the interaction with the user is specifically claimed as an advertisement. [Doc. No. 53-15, at Col. 17:58-67.]

Despite two hearings and much briefing on the construction of “project builder,” the parties have not clarified the function and structure of this component of the system.

In claim 1 of the ‘497 patent, the project builder provides the graphical user interface for the client computer via the network and includes an interactive interview to elicit and receive user responses to select templates and assets from the repository to assemble a communication. [Id., at Col. 14:44-59.]

In claim 1 of the ‘832 patent, the project builder obtains a communication project template from the media repository when a communication category associated with the template is selected on the graphical user interface and generates a communication displaying data specified on the graphical user interface in accordance with the selected template. [Doc. No. 1-5, at Col. 14:62-Col. 15:2.]

In claim 1 of the ‘632 patent, the project builder obtains an online advertisement template from the media repository, and generates an online advertisement based on the template selected on the graphical user interface. [Doc. No. 1-6, at Col. 14:61-65.]

In claim 1 of the ‘393 patent, the project builder obtains data determining a look and feel of an online advertisement from the graphical user interface of the client computer and generates the advertisement based on the result and the look and feel. [Doc. No. 1-7, at Col. 15:33-37.]

In claim 1 of the ‘8,253 patent, the project builder accesses the media repository and generates a project viewer. [Doc. No. 1-8, at Col. 15:25-26.]

The specification references to the project builder [Doc. No. 1-3, Col. 3:9-12, Fig. 1 (108)] are rather sparse. Although the claims recite the project builder assembling or generating the communication based on the user’s selections, the specification does not support the function of the project builder in that process beyond interviewing and selecting the templates and assets from the repository and generating the project viewer component to render the slides that compromise communication based on those selections. [Id., at Col. 4:27-30 (“The project viewer, such as the project viewer 118 shown in FIG. 1, is an application that renders or ‘serializes’ the communication project slides and content, and provides them with functionality.”)]

Plaintiff proposed construction offers little assistance in clarifying the function and structure of the project builder component. A project builder (or advertisement builder), plaintiff asserts was a known program construct that was familiar to one of skill in the art when the patent was filed. Plaintiff’s expert opined that this “builder” component would be recognized as “a combination of software and hardware that allows one to engage with different tools and to build up some sort of project,” “a set of tools that allows you to pull things together and literally build an object of some kind.” [Doc. No. 140, at 5.] Plaintiff’s explanation that the “project builder” component of the system is a set of tools that allows

the user to build a project is a simple redundancy untethered to the claim language or the specification.

In the context of the claims and the specification, this component provides a graphical user interface over a network through which it interviews the user. The builder selects appropriate templates and assets from the system repository based on the user's responses and passes those selections to the project viewer component for rendering or serializing into slides. Construing the project builder as the component of the system that interviews and selects the contents that are used to assemble or generate the communication such tools as a graphical user interface and a program construct that receives the user information and searches and selects from the media repository database appropriate templates and assets would be tools familiar to one skilled in the art.

Defendants contend that the "builder" component of the claimed system is a generic description for a combination of software and hardware to perform specified functions. Builder in the context of this patent, they assert, is a nonce word that does not connote a definite structure and is subject 35 U.S.C. §112, ¶6. The function of the "builder" is to generate a communication based on the selections of the user. The structure disclosed in the patent specification identified by defendants as performing that function however is generally the structure describing the operation of the project viewer component to render the selections into the slides. [Doc. No. 1-3, at Col. 4:27 to 8:59.] While the project builder generates the project viewer, the project viewer component of the system is a separate element that generates the slides

that are the communication. [Id., at Col. 3:9-12, Fig. 1.]

Based on the claim language and the disclosure and considering the arguments of counsel, the Court construes the “project builder” as **server-side software and hardware that obtains user information, selects appropriate template(s) and asset(s) and obtains user formatting and transmission information.** Such program constructs to provide this function of the system would be tools familiar to one of skill.

The parties will submit a joint proposed scheduling order by **February 22, 2021**. In light of the analysis and constructions set forth in this Order, the parties may consider other constructions necessary. Therefore, a request for the construction of any additional claim terms may be submitted as part of the proposed scheduling order.

It is **SO ORDERED**.

Dated: February 5, 2021

s/Cathy Ann Bencivengo
Hon. Cathy Ann Bencivengo
United States District Judge

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Appendix D

**UNITED STATES DISTRICT COURT
SOUTHERN DISTRICT OF CALIFORNIA**

Case No.: 19-CV-1301-CAB-DEB

IMPACT ENGINE, INC.,
Plaintiff,

v.

GOOGLE LLC,
Defendant.

Filed: May 14, 2021

**SUPPLEMENTAL CLAIM CONSTRUCTION
ORDER**

On February 5, 2021, the Court issued a claim construction order in this case. [Doc. No. 148.] The Court references that order for the background of the litigation and a description of the invention. In consideration of the constructions issued in that order, the parties were invited to submit additional terms that they felt might require construction. Google moved for the construction of three additional terms: **template**; **renders/rendered**; and **project viewer**. [Doc. No. 160.] The parties briefed the proposed constructions and argument was held on April 28, 2021.

Having considered the submissions of the parties and the arguments of counsel, and for the reasons set forth at the hearing and discussed further below, the Court issues the following supplemental claim construction order.

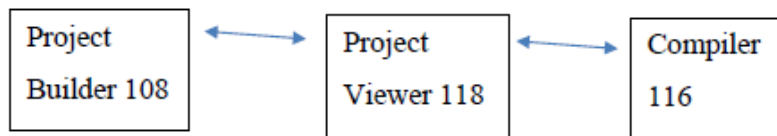
1. **Template** is construed as **pre-existing general structures and arrangements of a multimedia communication**. This construction is in accord with the description of templates in the specification at Col. 11:41-43 in U.S. Patent No. 7,870,497. [Doc. No. 1-3.]¹
2. **Renderers/Rendered** is construed as **serializing the project slides and content into a format that can be stored or transmitted**. This construction is in accord with the description of render in the specification at Col. 4:27-30.
3. **Project Viewer**

As discussed in the previous claim construction order, the patents are directed at a Multimedia Communications System and Method for creating, editing, sharing, and distributing high-quality, media-rich web-based communications. A user interacts with the system to create, edit, and distribute multimedia communications without needing to employ graphic design and computer programming professionals. Benefits of the system include that it is flexible, dynamic, cost-effective, and does not require the user to have in-depth programming knowledge.

¹ All the asserted patents are continuations of the '497 patent and therefore share the same specification. Specification references herein will correspond to the pagination of the '497 patent.

The system is hosted on a server and made available to users over a network such as the Internet. The server-side aspect of the invention, identified as the Communication Building Engine, includes specific components. [Fig. 1; Col. 2:65-3:29.] There is a Media Repository that stores templates, media assets, and other resources that can be used to create a multimedia communication project and store a user's completed projects. There is a Distribution Program to format and distribute completed projects as directed by the user. There is a Sharing Program that allows a user to identify specific users to have access to the communication for editing or distribution.

There are three distinct server-side components of the Communication Building Engine that interact in the creation of the communication project. [Fig. 1.]



The Project Builder, which the Court previously construed, is the component of the Engine that interfaces with the user to ascertain the user's needs and preferences and selects templates and media assets from the Media Repository to be used to assemble a communication project. A user's completed communication project is integrated by the Compiler and stored in the Media Repository for future distribution or editing. Between the Project Builder and the Compiler is the Project Viewer, "an application that renders or serializes the communication project slides and provides them with functionality." Col. 4:27-30. The parties dispute the construction of Project Viewer.

Asserted Claim 9 of the '497 patent is representative:

1. A multimedia communication system comprising:

a media repository storing communication project templates and media assets of a number of content types, the project templates and media assets being accessible by a graphical user interface on a client computer via a network; and

a project builder providing the graphical user interface for the client computer via the network for local display of the graphical user interface on the client computer, the graphical user interface comprising controls to receive user input for selecting at least one communication project template from the media repository and one or more media assets, and assembling a communication based on the at least one communication project template, the project builder further including an interactive interview for display on the graphical user interface, the interactive interview providing a plurality of questions to a user for eliciting a user response pertaining to user preferences, and further receiving the user preferences about the at least one communication project template and one or more media assets to assemble the communication.

9. A multimedia communications system in accordance with claim 1, further comprising a **project viewer** that renders an assembled

communication and transmits the rendered communication via the network to the client computer for viewing in the graphical user interface.

Col. 14:38-59, Col. 16:6-10.

Claims of the patents provide that the Project Viewer component is connected to the Project Builder as shown in the specification. The Project Builder application generates or launches the Project Viewer application. Col. 3:9-10; Col. 4:30. The Project Viewer renders, or serializes, the communication using the selected templates and assets provided by the Project Builder into the collection of slides and transmits or sends the rendered communication to the client user for viewing and editing. Col. 4:27-49.

Impact Engine contends that the claimed Project Viewer is a known programming construct, i.e., software (an application) running on hardware (the server computer) for viewing the communication or advertisement that the user creates with the Project Builder. [Doc. No. 179-3, at ¶33; Doc. No. 190, at 10-11.] To exemplify that the Project Viewer limitation was a known programming construct, Impact Engine directs the Court to a definition of “viewer” from a 2002 Microsoft Computer Dictionary as “an application that displays or otherwise outputs a file in the same way as an application that created the file. An example of a viewer is a program to display GIF or JPEG files.” [Doc. No. 179-3, at ¶37.]

Google agrees that the Project Viewer limitation is a software application. However, it contends that the Project Viewer limitation of these patents is not the “viewer” application known in the art referenced

by Impact Engine. Rather, Google contends that the Project Viewer is a term coined for purposes of the patents-at-issue and there was no known programming construct understood to perform the various functions required of the Project Viewer. Google argues that in accordance with the claims and the specification of the patents-at-issue, Project Viewer is nonce term equivalent to “means” with no known structure and is defined by its functions. Google argues Project Viewer is subject to construction under 35 U.S.C. §112, ¶6. *See Advanced Ground Info. Sys., Inc., v. Life360, Inc.*, 830 F.3d 1341, 1348 (Fed. Cir. 2016) (affirming application of §112, ¶6 to claim term “symbol generator” finding that although “symbol” and “generator” were terms of art in computer science, in the context of the relevant claim language the combination was an abstraction describing the function to be performed without definite structure.)

In determining whether to apply §112, ¶6 to a claim term, the standard is whether the words of the claim are understood by persons of skill in the art to have a sufficiently definite structure. *Williamson v. Citrix Online, LLC*, 792 F.3d 1339, 1349 (Fed. Cir. 2015). The Court previously considered similar arguments regarding the construction of other components of the Communication Building Engine. The Court concluded that the Project Builder component of the server-side Communication Building Engine, as described by its functions and supported by the specification, is the client interview and selection tool of the Engine. Although Project Builder is a coined term in these patents, software applications to perform the functions of the Project Builder

component would be sufficiently recognized by the functions claimed and were known in the computer industry at the relevant time. Similarly, the Court adopted Impact Engine's construction that the Distribution Program component of the server-side Communication Building Engine invoked known software applications to perform the disclosed functions.

If the Project Viewer function was confined to the function of displaying the communication created by another application, the Court would be inclined to accept Impact Engine's construction that "viewer" applications to do this function were known in the industry at the relevant time. The Court however is not persuaded that known "viewer" software applications, as described above, meet the requirements of the claimed Project Viewer in the context of these patents. The claims and the specification describe the patents' Project Viewer limitation as much more than an application to display a file created by another application.² Impact Engine has not demonstrated that there were known "viewer" applications to render or serialize the communication project slides and provide them with functionality as described by the patents such that a

² The Court's construction of Project Builder rejected Impact Engine's contention that the Project Builder application of the system creates the communication as unsupported by the specification. The Project Builder is the client interface for selecting materials from the Media Repository to be used to create the slides that comprise the communication, however the patent identifies the Project Viewer as the application that receives that information and renders the project as configured by the user. Col. 4:27-38.

person of skill reading the claim term Project Viewer and its ascribed functions would understand the structure that would perform these functions. Impact Engine's proposed construction that the Project Viewer would be understood to be software (an application) running on hardware (a server) to perform the functions is too generic and does not identify anything sufficiently structural.

Although the claims do not use the word "means" Google has demonstrated that the claim term Project Viewer in the context of these patents is a non-structural place-holder identified only by its functions and is therefore subject to a means-plus-function analysis. Applying §112, ¶6, the Court must determine what structure, if any, disclosed in the specification corresponds to the claimed functions. *Williamson*, 792 F.3d at 1351.

The functions performed by the Project Viewer include rendering [serializing] the communication [i.e., collection of slides]; displaying slides in auto-play on or auto-play off modes; sending the communication to the client computer; allowing the user to view templates and media assets. *See e.g.*, '497 Patent, Claim 9; '6,253 Patent, Claim 1; '832 Patent, Claim 1; '8,253 Patent, Claim 1.

The structures disclosed to perform the functions of the Project Viewer are described at Col. 4:27 through Col. 9:19, and the Project Viewer is limited to those disclosed structures and their equivalents.

It is **SO ORDERED**.

Dated: May 14, 2021

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s/Cathy Ann Bencivengo
Hon. Cathy Ann Bencivengo
United States District Judge

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Appendix E

**UNITED STATES DISTRICT COURT
SOUTHERN DISTRICT OF CALIFORNIA**

Case No.: 19-CV-1301-CAB-DEB

IMPACT ENGINE, INC.,
Plaintiff,

v.

GOOGLE LLC,
Defendant.

Filed: May 17, 2021

**ORDER ON MOTION TO DISMISS
COMPLAINT**

On March 12, 2021, Google filed a motion under Fed.R.Civ.P. 12(c) for dismissal of this litigation contending that the patents at issue in this litigation claim ineligible subject matter under 35 U.S.C. § 101. [Doc. No. 157.] On the same day, Google filed a motion requesting the Court construe three additional terms of the patents. [Doc. No. 160.] The Court issued the Supplemental Claim Construction Order on May 14, 2021. [Doc. No. 205.]

Google's motion to dismiss identifies Claims 1, 2, 3, and 5 of U.S. Patent 8,356,253 as representative of the claims at issue in this litigation. All these representative claims include the limitation of a

“project viewer,” which was one of the terms construed in the supplemental claim construction order. The parties did not have the benefit of the Court’s construction in the briefing of this motion and Google’s motion assumes a construction not adopted by the Court. The Court did not conclude that the “project viewer” limitation was a known generic program construct. The Court’s construction limits the claim scope to structures disclosed in the specification to create the claimed communications (i.e., collections of slides that consist of layers and content containers) and how they function.

As the motion is premised in part on a claim construction not adopted by the Court, the motion is denied.

It is **SO ORDERED**.

Dated: May 17, 2021

s/Cathy Ann Bencivengo
Hon. Cathy Ann Bencivengo
United States District Judge

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Appendix F

**UNITED STATES DISTRICT COURT
SOUTHERN DISTRICT OF CALIFORNIA**

Case No.: 19-CV-1301-CAB-DEB

IMPACT ENGINE, INC.,
Plaintiff,

v.

GOOGLE LLC,
Defendant.

Filed: Nov. 10, 2021

**Order on Motion to Dismiss Pursuant to Rule
12(c) for Patent Ineligibility**

Plaintiff Impact Engine, Inc. alleges that defendant Google LLC infringes eight United States patents owned by Impact Engine. The asserted patents¹ are all continuations of U.S. Patent No. 7,870,497 [Doc. No. 1-3]², filed April 13, 2006, and have a common specification. Before the Court is

¹ The following patents are at issue in this litigation: U.S. Patent Nos. 7,870,497; 8,356,253; 8,930,832; 9,361,632; 9,805,393; 10,068,253; 10,565,618; and 10,572,898. [Doc. Nos. 1-3 to 1-8, 53-14 and 53-15, respectively.]

² Document numbers and page references are to those assigned by CM/ECF for the docket entry.

Google's motion to dismiss certain of the asserted claims, pursuant to Fed.R.Civ.P. 12(c), on the basis that they are ineligible subject matter under 35 U.S.C. §101. [Doc. No. 225.] The matter has been fully briefed and the Court finds the motion suitable for determination on the papers submitted and without oral argument in accordance with Civil Local Rule 7.1(d)(1). For the reasons set forth below, the motion is **GRANTED** in part and **DENIED** in part.

I. Procedural Background

Google previously sought to dismiss Impact Engine's complaint under Fed.R.Civ.P. 12(b)(6) based on patent ineligibility at the start of this litigation. [Doc. No. 21.] Google argued that all the asserted patents claim ineligible subject matter and that Claim 1 of the '497 patent was representative of all the claims of all the patents asserted by Impact Engine. The Court denied the motion, finding that Google did not establish that Claim 1 of the '497 patent was representative. Further, based only on consideration of the complaint, the patent and its history, the Court found it could not conclude that Claim 1 of the '497 patent was directed at an abstract idea. [Doc. No. 41 at 2.] However, Google was not precluded from reasserting the defense of patent ineligibility as to one or more of the patents' claims if claim construction or further evidence beyond the pleadings supported such a challenge in the future. [*Id.*]

Following the issuance of the Court's initial Claim Construction Order [Doc. No. 148], Google renewed its motion to dismiss pursuant to Fed.R.Civ.P. 12(c) based on patent ineligibility, this time asserting that Claims 1, 3, and 5 of U.S. Patent No. 8,356,253 ("the

‘6253 patent”) were representative of all the claims at issue in the litigation. [Doc. No. 157.] At the same time, Google also filed a motion for additional construction of claim terms that are limitations in the representative claims of the ‘6253 patent. [Doc. No. 160.] Because Google’s challenge to the patentability of the claims of the ‘6253 patent was premised in part on claim constructions that the Court did not adopt [Doc. No. 205], the Court denied the motion. [Doc. No. 206.]

Google’s present motion to dismiss is directed specifically at Claim 1 of the ‘497 patent, Claims 14, 16 and 23³ of the ‘618 patent, and Claim 30 of the ‘898 patent. Google brings the motion pursuant to Fed.R.Civ.P. 12(c) and argues these specific claims, as construed by the Court and in consideration of the patent specification, are directed at an abstract idea and do not include additional elements that transform the claims into patent-eligible subject matter.

Impact Engine opposes Google’s present motion, in part arguing it is an untimely motion for reconsideration of its previous motions challenging the validity of Impact Engine’s patents based on section 101. The Court disagrees. Each motion brought by Google was distinct and separate. This motion is neither untimely nor a request for the Court to reconsider a prior ruling. The Court therefore turns to the merits of Google’s motion.

³ Claim 23 is dependent from independent Claim 22, which is therefore included in the Court’s analysis.

II. Legal Standard

Under Rule 12(c), judgment may be granted if the movant clearly establishes that no material issue of fact remains to be resolved and that he is entitled to judgment as a matter of law. Whether a claim is drawn to patent-eligible subject matter under section 101 is ultimately an issue of law that may be decided on a Rule 12(c) motion under certain circumstances. Generally, the court may not consider matters outside the pleadings without converting a Rule 12(c) motion to a summary judgment motion under Rule 56. However, because claim construction is a question of law, a court “may take notice of and rely on its claim construction opinion without converting [a 12(c)] motion into a motion for summary judgment.” *Intellectual Ventures I LLC v. AT&T Mobility LLC*, 235 F. Supp. 3d 577, 588 (D. Del. 2016).

Section 101 defines patent-eligible subject as “any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof.” 35 U.S.C. §101. However, laws of nature, natural phenomena, and abstract ideas are not eligible for patenting. *Alice Corp. v. CLS Bank Int’l*, 573 U.S. 208, 216 (2014). When a patent claim is alleged to involve one of these three types of subject matter, the court is to apply a two-step test for examining patent eligibility. *Id.* 573 U.S. at 217-18. The court must “distinguish between patents that claim the ‘buildin[g] block[s]’ of human ingenuity and those that integrate the building blocks into something more,” to protect against “disproportionately tying up the use of the underlying ideas.” *Id.* at 217.

The first step of the *Alice* test requires a court to determine whether the claim at issue is directed to a patent-ineligible concept, in this case an abstract idea. *Id.* at 218. The claim is considered in its entirety to ascertain whether its character as a whole is directed to excluded subject matter. *Internet Pats. Corp. v. Active Network Inc.*, 790 F.3d 1343, 1346 (Fed. Cir. 2015). If so, the second step of the *Alice* test requires the court to examine the elements of the claim both individually and as an ordered combination to determine whether it contains an inventive concept sufficient to transform the claimed abstract idea into a patent-eligible application. *Alice*, 573 U.S. at 221. This inventive concept must do more than simply recite “well-understood, routine, conventional activities” previously known to the industry. *Mayo Collaborative Servs. v. Prometheus Labs, Inc.*, 566 U.S. 66, 79-80 (2012).

III. Summary of the Invention and Claim Construction

The patents at-issue are directed at a Multimedia Communications System and Method for creating, editing, sharing, and distributing high-quality, media-rich web-based communications. [Doc. No. 1-3 at 2 (Abstract).] The systems and methods disclosed are intended to replace the “prior art” practice of contracting a professional graphic design or advertising agency to create works that can be distributed electronically in various formats such as a banner advertisement, website or email. Through the system, the user selects and creates the communication content, edits it, and distributes the

communication in a selected format to a selected audience over the Internet. [*Id.* at Col. 1:12-26.]

Broadly, the patents describe a system in which a client user interacts through a graphical user interface with the system components located on a server connected over the Internet. The system includes a media repository that stores templates and media assets, such as music, artwork and graphics. The user interacts with the system using a project builder component which enables the user to select templates and assets from the repository to create a communication, such as an advertisement. The project viewer component renders or serializes the selections made by the user to display and playback the communication as configured by the user. The system's compiler integrates the selections into a final communication that is stored in the repository. The system also includes a sharing program that enables the communication to be shared and edited by designated users. The system further includes a distribution program that formats the communication into one or more formats selected by the user and electronically delivers the formatted communication to the user's selected audience. [*Id.* at Col. 2:65-Col. 3:29, Col. 11:36-Col. 12:37; Figs. 1-5.] Benefits of the system include that it is flexible, dynamic, cost-effective, and does not require the user to have in-depth programming knowledge. [*Id.*, Abstract; Col. 1:12-25, 41-44.]

At claim construction, Impact Engine argued that various components of the server-side communication builder engine (i.e., project builder, project viewer, compiler, and distribution program) required no

construction as each component at the time of filing of the parent application was a “known program construct that would be familiar to one of skill in the art.” [Doc. No. 108 at 19, 22, and 25; Doc. No. 179 at 9.] Impact Engine represented that these components of the system were familiar applications (software) implemented on a server (hardware) used to build a communication or advertisement based on input from the user. [Doc. No. 108 at 14-17; Doc No. 179 at 11.] The Court generally adopted Impact Engine’s proposed constructions that these components of the system were known software applications to provide for the selection of user preferences to create a communication based on those selections and to format and distribute the communication according to the user’s directions. [Doc. No. 148.]⁴

Based on these constructions, Google now argues that the challenged claims below are simply for known software applications to create and distribute a user defined communication and as such they claim an abstract idea without inventive concept.

IV. Challenged Claims

A. U.S. Patent No. 10,565,618

Claims 14, 16, 22, and 23 claim:

⁴ Impact Engine’s proposed construction that the “project viewer” component was also a known software application for a user to “preview of a communication” [Doc. No. 179 at 11] was not adopted by the Court. The specification discloses the system functions of the project viewer as significantly more complex than prior art known “viewer” applications described by Impact Engine. [Doc. No. 205.]

14. A multimedia communication system for generating an online advertisement in an electronic distribution format to accommodate targeted broadcasting over an Internet based on recipient specific data received from a user of a recipient computing device, the system comprising:

a server having a connection to the Internet to communicate with a user of a recipient computing device via a graphical user interface displayed by the recipient computing device, the system comprising:

a recipient specific database for storing qualitative and/or quantitative data received from a user of the recipient computing device;

a media repository for storing a plurality of online advertisement templates and a plurality of media assets;

a project builder for accessing the recipient specific database as well as the media repository, and for selecting a media asset for integration with an advertisement template, the media asset being selected based on qualitative or quantitative data received from the recipient computing device;

a compiler associated with the project builder, the compiler for integrating the selected media asset with the online advertisement template to generate an online advertisement;

a formatter for selecting and formatting the online advertisement in an electronic distribution format; and

a distribution program for performing the targeted broadcasting of the online advertisement over the Internet to the recipient computer device.

16. The multimedia communication system in accordance with claim 14, wherein the recipient specific data comprises data pertaining to the user received from a social network, a geographical location, or a web page visited by the user.

22. A multimedia communication system for generating an online advertisement in an electronic distribution format to accommodate targeted broadcasting over an Internet, the system comprising:

a server connected to the Internet to communicate with one or more of a user of a recipient computing device via a graphical user interface displayed by the recipient computing device and/or to a third-party database, the server comprising:

a media repository for storing a plurality of online advertisement templates and a plurality of medial assets;

a compiler associated with the media repository, the compiler for integrating a selected media asset with a selected online advertisement template from the media repository, the media asset and the advertisement template being

automatically selectable by the server based on a first set of data received from one or more of the recipient computing device and/or third-party database to generate a online advertisement;

a formatter for automatically formatting the online advertisement in at least one of a plurality of electronic distribution formats for display at the graphical user interface of the recipient computing device, the formatting of the online advertisement being determine based on the first set of data received from one or more of the recipient computing device and/or third-party database; and

a distribution program for the targeted broadcasting of the online advertisement over the Internet to the recipient computing device in the determined electronic distribution format.

23. The multimedia communications system in accordance with claim 22, wherein the media asset and the template are selected based on the first set of data received from the recipient computing device, and the formatting of the online advertisement is determined based on whether the recipient computing device is a desktop or laptop computer or a mobile device.

[Doc. No. 53-14 at Col. 16:53-Col. 17:16; Col. 17:21-24; Col. 17:48-Col. 18:25.]

During the prosecution of the '618 patent, the examiner issued a rejection of the claims based on section 101, finding that the claimed subject matter recites a judicial exception -- that they claim an abstract idea of creating and distributing advertisement content. [Doc. No. 28-8 at 6.] The Court agrees.

In applying the first step of the *Alice* analysis, the Court finds that the claims are directed at the abstract idea of a system for generating customized or tailored computer communications based on user information. *See Intellectual Ventures I LLC v. Capital One Bank (USA)*, 792 F.3d 1363, 1369-70 (Fed. Cir. 2015) (holding that a patent claiming a system for customizing web content based on user information was directed to an abstract idea). These claims of the '618 patent relate to creating online advertisements based on user input to select materials from a library of stored materials and to format and distribute the advertisement over the Internet based on user preferences.

As the patent itself discloses, the creation and distribution of such advertisements was traditionally performed by professional advertisement agencies, and the system and method of the patent automates the process of creating and distributing such professional quality communications. [Doc. No. 53-14 at Col. 1:34-48.] The system of these claims employs a library of assets, a software application to determine the user's preferences, a compiler to integrate the assets selected from the library into an advertisement,

and a distribution system⁵ to deliver the advertisements to the user's selected audience in a preferred format. As advocated by Impact Engine and adopted by the Court, all these elements of the system were well-known program constructs defined by their functions that were familiar to one of skill in the art at the relevant time. No advancement or improvement to any of these elements is disclosed or claimed.

The patent examiner found that, although directed to “a judicial exception,” the server-side technical elements of the media repository, project builder, project viewer (which is not present in these claims), compiler, formatter (although not disclosed in the specification) and distribution program “actively communicating between each other, integrated and deeply connected with each other, and performing the recited functional limitations amounts to more than simply implementing the functional limitations ‘by a computer.’” The examiner therefore concluded that the second step of the *Alice* test was satisfied, and the claims as a whole applied the judicial exception in some other meaningful way beyond generally linking the use to a particular technological environment. [Doc. No. 28-8 at 6-7.] The Court disagrees.

“Claims that amount to nothing significantly more than an instruction to apply an abstract idea using some unspecified, generic computer and in which each step does no more than require a generic computer to perform generic computer functions do

⁵ A “formatter” is not identified in the patent specification. However, the patent does disclose that the distribution program controls the format and communication protocols for distributing the communications. [Id. at Col. 3:45-46.]

not make an abstract idea patent-eligible.” *Alice*, 573 U.S. at 225-26. These claims do not include any improvement in the functioning of these “well-known program constructs.” That they are located on the server does not impart a meaningful improvement or advance as there is no claim or disclosure that the server does anything more than house the generic components.

The specification provides little about the interactions of the generic computer software and hardware components of these claims and how these interactions happen, much less identifying an improvement in the known ways they would interact in a computer system. The actual mechanism of how the communications are compiled, formatted, and distributed on the Internet is not disclosed other than by known methods. For these claims, there is no specific or limiting recitation of improved computer technology.⁶ See *Intellectual Ventures I LLC v. Symantec Corp.*, 838 F.3d 1307, 1316 (Fed. Cir. 2016) (holding that a claim directed to an abstract idea that contains no restriction on how the result is accomplished or description of the mechanism to do so,

⁶ The Court construed the limitation of the “project viewer” to be a specific and limited component part of the system. Consequently, claims that contain the project viewer limitation, which discloses a mechanism for creating communications that can be easily edited and distributed on the Internet, are distinguished from the claims at issue in Google’s present motion. Without that limitation, these claims broadly encompass collecting user preference information and making an advertisement to be distributed on the Internet using known conventional computer software and hardware.

although stated to be the essential innovation, is not patent-eligible).

These claims recite only generic computer components functioning in their known conventional manner, which may improve the experience of the user, but does not improve the functions of the computer. Automating conventional activities using generic technology does not amount to inventive concept. These asserted claims of the '618 patent are not patent-eligible under 35 U.S.C §101. The motion is **GRANTED** as to Claims 14, 16, 22 and 23 of the '618 patent.

B. U.S. Patent No. 7,870,497

Claim 1 of the '497 patent claims:

1. A multimedia communication system comprising:

a media repository storing communication project templates and media assets of a number of content types, the project templates and media assets being accessible by a graphical user interface on a client computer via a network; and

a project builder providing the graphical user interface for the client computer via the network for local display of the graphical user interface on the client computer, the graphical user interface comprising controls to receive user input for selecting at least one communication project template from the media repository and one or more media assets, and assembling a communication based on the at least one communication

project template, the project builder further including an interactive interview for display on the graphical user interface, the interactive interview providing a plurality of questions to a user for eliciting a user response pertaining to user preferences, and further receiving the user preferences about the at least one communication project template and one or more media assets to assemble the communication.

[Doc. No. 1-3 at Col. 14:38-67.]

Having applied the above analysis to this claim, the Court finds that it is also not patent eligible. This claim is for a server-side media library and a software program that selects materials from that library to make a communication based on user provided preferences obtained through a graphical user interface. The patent does not claim the creation of media repositories or any improvement to such known databases. It does not claim to have created or improved graphical user interfaces. It does not disclose any advancement in “known program constructs” used to “interview” a user to determine preferences.

This claim recites only generic computer components functioning in their known conventional manner, which again may improve the experience of the user, but does not improve the functions of the computer. Automating conventional activities using generic technology does not amount to inventive concept. This asserted claim of the ‘497 patent is not patent-eligible under 35 U.S.C §101. The motion is **GRANTED** as to Claims 1 of the ‘497 patent.

C. U.S. Patent No. 10,572,898

Claim 30 of the '898 patent claims:

30. An online advertisement generation system for autonomously generating and broadcasting a communication to a graphical user interface of a recipient device, the communication capable of being rendered, the online advertisement generation system comprising:

a media repository for storing media content comprising a plurality of online advertisement templates and a plurality of media assets;

a communications system server coupled to the media repository, the communications system server being connectable to an internet network, the communications system server being configured for receiving, via the internet network, one or more of user data, keyword data, and geographic data, and comprising:

an advertisement generation engine for autonomously generating the communication, the advertisement generation engine for accessing the media repository and selecting, based on one or more of the user data, keyword data, and geographic data, at least one of the plurality of online advertisement templates and at least one of the plurality of media assets to generate the communication, the communication including a collection of slides comprising a grouping of design layers, design elements, and content containers into the collection of slides so as to generate the communication capable of being rendered in a

manner so as to be content specific to the user data, keyword data, and geographic data;

a formatting engine for formatting the communication; and

a distribution engine wherein once the communication is generated and formatted, the communications system server autonomously broadcasts the one of more communications via the distribution engine to the recipient device so as to be rendered at the graphical user interface thereof, the slides being displayable in an auto-play on or and auto-play off format.

[Doc. No. 53-15 at Col. 19:39 – Col. 20:27.]

The Court applied the *Alice* analysis to the above claim, and while finding that it also claims the abstract idea of creating and distributing advertisement content, this claim includes restrictions on how the result is accomplished and the patent describes the mechanism to do so. Therefore, the claim is patent eligible.

This patent, the most recent in the family tree of continuations from the initial application, attaches different labels to the system components, but it is based on the same specification and the corresponding components remain the same “known program constructs.” For example, the claimed “communications system server” is a new label for the disclosed communication builder engine (102) and the “advertisement generation engine” is the disclosed project builder (108). The claimed “formatting engine” remains a bit of mystery as is not identified in the specification other than as a function of the “distribution engine” disclosed as the distribution

program (112). These components of the claimed system are not advancements in the functioning of the computer, as discussed above. To the extent that the claim includes the “autonomous” generation and broadcasting of a communication, the patent does not disclose a mechanism or advancement in the art for such independent function. The generation and distribution of a communication is accomplished by known program constructs, and nothing is disclosed to inform how any autonomous function occurs that is an advancement over what was known in the art.

Nevertheless, the claim includes the limitation that the communication is not just a collection of slides, but a collection comprised of a grouping of design layers, design elements and content containers. The description of how these layered slides with content containers are created, managed, and populated is disclosed in great detail in the specification. [Id. at Col. 4:1 - Col 9:10] This limitation as part of the claim provides inventive concept by requiring that the system not just create a customized communication based on user preferences, but create that communication using a particular format, and the patent describes the mechanism to do so.

Considering Claim 30 as an ordered combination of elements, it contains an inventive concept sufficient to transform the claimed abstract idea into a patent-eligible application under 35 U.S.C. §101. The motion is **DENIED** as to Claim 30 of the ‘898 patent.

V. Conclusion

For the reasons stated above, Google’s motion to dismiss certain claims asserted in this litigation

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pursuant to Rule 12(c) as patent ineligible subject matter under 35 U.S.C. § 101 is:

GRANTED as to Claims 14, 16, 22, and 23 of the '618 Patent and Claim 1 of the '497 Patent; and

DENIED as to Claim 30 of the '898 Patent.

IT IS SO ORDERED.

Dated: November 10, 2021

s/Cathy Ann Bencivengo
Hon. Cathy Ann Bencivengo
United States District Judge

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Appendix G

**UNITED STATES DISTRICT COURT
SOUTHERN DISTRICT OF CALIFORNIA**

Case No.: 19-CV-1301-CAB-DEB

IMPACT ENGINE, INC.,
Plaintiff,

v.

GOOGLE LLC,
Defendant.

Filed: Aug. 31, 2022

**ORDER GRANTING MOTION FOR SUMMARY
JUDGMENT**

Before the Court is Defendant Google, LLC's motion for summary judgment against all the patent claims asserted by Plaintiff Impact Engine, Inc. [Doc. No. 317, 318.]¹ At the hearing on the motion,² the Court *sua sponte* raised concerns that certain of the asserted claims appeared to be subject to a 35 U.S.C. § 101 unpatentability finding based on the Court's previous ruling [Doc. No. 268] related to similar claims of this patent family. As this issue was not briefed by

¹ Impact Engine's opposition is filed at Doc. No. 336. Google's reply is filed at Doc. No. 348.

² Hearing Transcript, Doc. No. 420.

the parties, the Court ordered supplemental briefing.³ Having now considered the initial submissions of the parties, the arguments at the hearing, and the supplemental submissions on the section 101 issue, the Court grants Google's motion.

I. Background

This case initially involved the assertion of eight patents⁴ all flowing from the same specification⁵ directed at a Multimedia Communications System and Method for creating, editing, sharing, and distributing high-quality, media-rich web-based communications. Impact Engine represented to the Court that its patented system revolutionized the creation and distribution of advertising on the Internet. By allowing a client user to interact with the server-based components of the system over the Internet, the user can create, edit, and distribute customized communications to a select audience, replacing the need to employ professional graphic designers or advertising agencies and computer programmers.

Over the course of this litigation, however, Impact Engine has advocated that the components of the patented system are less than revolutionary, and

³ See Doc. Nos. 418, 422, 427, 430.

⁴ The following patents were initially asserted in this litigation: U.S. Patent Nos. 7,870,497; 8,356,253; 8,930,832; 9,361,632; 9,805,393; 10,068,253; 10,565,618; and 10,572,898. [Doc. Nos. 1-3 to 1-8, 53-14 and 53-15, respectively.]

⁵ As the patents all share a common specification, all references to drawings, columns and lines of the patent specification are based on the '497 patent [Doc. No. 1-3.] unless otherwise indicated.

rather a collection of programming constructs, i.e., software (applications) running on hardware (the server computer), operating in ways that were readily known to those of skill in the art in 2005. Having adopted Impact Engine's proposed constructions⁶ for many components of the server-side system as known program constructs operating in a manner familiar to one of skill in the art, the Court subsequently granted in part Google's motion to dismiss some of the asserted claims as patent ineligible. [Doc. No. 268.]

The dismissed claims provided for a user to make individualized selections from a library of materials, and the components of the system would generate, format, and distribute a communication (i.e., advertisement) based on those user preferences with no restrictions on how that was accomplished or any description of the mechanism to do so. The limitations of the dismissed claims, by Impact Engine's own constructions, were simply components operating in their known conventional manner to create and distribute customized communications with no identifiable improvement over their function, interactions, or mechanisms.

The Court found one component of the system to be a significant exception to "known programming construct" definition that Impact Engine advanced for the component parts of its system: the limitation of the project viewer. Although Impact Engine strenuously asserted that the project viewer claim limitation was also simply a known programming construct that

⁶ Court's Claim Construction Orders are at Doc. Nos. 148 and 205.

provided for viewing of the created communication or advertisement by the user, the language of the claims and the description in the specification dictated a different construction. The Court's analysis is set forth in its Supplemental Claim Construction Order [Doc. No. 205] and will not be repeated here. In summary, the Court concluded that the claimed functions of the component identified as the project viewer dramatically exceeded Impact Engine's assertion that it was limited to a known function of displaying a file to the user. The Court therefore found that the project viewer limitation was subject to construction under 35 U.S.C. §112, ¶6.

The Court determined that structures disclosed in the patent to perform the functions of the project viewer which included rendering or serializing the communication project slides and providing them with functionality were set forth at Col. 4:27 through Col. 9:19 of the '497 patent specification. Consequently, to establish infringement for those claims in which the project viewer renders the communication, Impact Engine must demonstrate that the accused systems function in accordance with the project viewer structure for rendering communications disclosed in the patent or its equivalent. *Williamson v. Citrix Online, LLC*, 792 F.3d 1339, 1347 (Fed. Cir. 2015).

II. Legal Standard

The familiar standard for summary judgment applies. Summary judgment is authorized if there are no genuine issues as to any material fact and the moving party is entitled to judgment as a matter of law. Fed. R. Civ. P. 56(c).

A patent infringement analysis involves two steps: (1) claim construction and; (2) application of the properly construed claim to the accused product. *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 976 (Fed. Cir. 1995). If a reasonable jury cannot find that every limitation or its equivalent of a properly construed claim is found in the accused product, the court may enter summary judgment of noninfringement. *Medgraph Inc. v. Medtronic, Inc.*, 843 F.3d 942, 949 (Fed. Cir. 2016).

III. Discussion

Google moves for summary judgment on the remaining asserted claims in this litigation. Google contends that (1) Impact Engine's infringement analysis does not apply the Court's claim construction of the project viewer limitation to the accused systems and therefore a reasonable jury cannot find infringement, and (2) certain asserted claims are either unpatentable subject matter or are invalid for lack of enablement and written description and therefore cannot be infringed. The Court agrees.

A. Impact Engine's Infringement Analysis does not apply the Court's Claim Construction for the Project Viewer Limitation.

For those claims that include the limitation that the project viewer render the communications, Impact Engine's infringement analysis does not apply the Court's claim construction. Impact Engine's infringement analysis is premised on the contention that the Court's §112, ¶6 construction did not "set forth any required structure" and left it to the parties to determine the structures necessary to perform the

claimed functions. [Doc. No. 340, at 8-9.] The Court however identified a significant portion of the specification that describes how the project viewer renders a communication based on the user's selections, starting at Col. 4:27 through Col. 9:19 of the '497 patent. [Doc. No. 1-3.] Within these columns, the specification discloses in detail how the project viewer loads the content and design elements selected by the user into containers at various layers to render a communication. [Col. 5:7-Col.8:59.]

Impact Engine's expert did not apply any of this detailed description of how the project viewer uses the information it is provided to render a communication. Rather he concluded that the structure disclosed for the project viewer to render a communication is simply receipt by the project viewer of the "project object," the information necessary for the project viewer to render the communication as configured by the end user. [Col. 4:27- 38.] The receipt of the information to render a communication as configured by the end user is not the structure for the actual rendering of the communication as required by the claims and the Court's construction. Having based its infringement analysis on a construction that does not comport with the Court's claim construction, Impact Engine cannot sustain its burden to prove infringement of claim 9 of the '497 patent (requiring a communication system in which the project viewer renders an assembled communication) or claim 1 of the '6253 patent (requiring a project viewer that renders a communication that is a collection of slides comprising a grouping of design layers, design elements and content containers).

Google's motion for summary judgment of non-infringement of these patents is therefore granted.

B. Claims that Identify the Project Builder Limitation as the Generator of the Communications Claim Unpatentable Subject Matter

Impact Engine asserts claim 12 of the '8253 patent.⁷ The asserted claims of the '832 patent all depend from its independent claim 1 and the asserted claims of the '632 patent all depend from its independent claim 1. In these independent claims, the communication, or advertisement, is generated by the project builder component of the system. Although the project viewer component is a limitation of these claims, its function is narrowly drawn to sending the generated communication or advertisement to the user's computer. This limited function of the project viewer is the specific function Impact Engine advanced in claim construction when it advocated that the Court construe the project viewer component as a known programming construct operating in a manner familiar to one of skill in the art. [Doc. No. 205.]

Consequently, in the scope of these asserted claims, the function of the project viewer is to operate in its known and familiar capacity—to display a file in the same way as the application that created the file, and not to render the communication. In these claims the communication is generated by the project builder

⁷ Impact Engine also asserts claim 1 of the '8253 patent. Court finds this claim substantively indistinguishable from claim 14 of the '618 patent previously found to claim unpatentable subject matter and therefore invalidates claim 1 of the '8253 patent on the same grounds.

component. In accordance with the specification, the project builder selects appropriate templates and assets from the media library based on user preferences to create a customized communication applying known program constructs to do so. The Court has previously determined that claims directed at a system of known software applications to provide for the selection of user preferences to create a communication based on these selections and to format and distribute the communication according to the user's directions, claim an abstract idea without inventive concept. [Doc. No. 268.]

The Court applies the same analysis here and finds that claim 12 of the '8253 patent, claim 1 of the '832 patent and claim 1 of the '632 patent are directed at an abstract idea of generating customized communications based on user preferences using unspecified, generic computer applications in their known capabilities to automate functions previously performed by professional graphic designers or advertising agencies and computer programmers. The actual mechanisms of how the communications are generated, compiled, formatted, and distributed is not disclosed other than by reference to known methods.

The Court therefore grants Google's motion for summary judgment based on its finding that the asserted claims of the '8253 patent, '832 patent and '632 patent are not patent eligible under 35 U.S.C. §101.

C. The Patent Specification Does Not Disclose How the Compiler Component of the System Generates a Communication as Required by the '898 Patent

Impact Engine asserts claim 30 of the '898 patent, which requires in part a compiling engine for integrating the selected media asset with the selected advertisement template and grouping the design layers, design elements and content containers into the collection of slides so as to generate the communication capable of being rendered in manner so as to be content specific to the user data. [Doc. No. 53-15, Col. 20:11-17.] The specification's limited references to the compiler component of the system are (i) a box in Figure 1 labeled compiler (116) with no corresponding reference in the text of the specification as to the purpose and function of the compiler, and (ii) Fig. 3, a flow chart depicting a method for template customization and media asset usage which teaches that the customized project is received from the user and compiled into a format suitable for transmission. [Fig. 3 (306), Col. 12:9-11.]

A compiler in the computer arts at the time the patent was filed was a program that translates source code into machine or object code. [Court's Claim construction, Doc. No. 148 at 67.] The '898 patent does not disclose any information or mechanism that would inform a person of skill in the art how a compiler as construed in this patent would group the claimed design layers, design elements and content containers into a collection of slides to generate a communication. The patent discloses at length how the project viewer

limitation of the system performs these tasks but it does not teach how a compiling program at the time of the filing of the original patent would do so. This claim does not comply with 35 U.S.C. § 112, as the patent does not contain the enablement and written-description requirements of patentability to support this claim.⁸

The Court therefore grants Google's motion for summary judgment of invalidity of the only asserted claim of the '898 patent.

IV. Conclusion

For the reasons set forth above, it is hereby **ORDERED** as follows:

1. Google's motion for summary judgment as to all the remaining claims asserted in this litigation [Doc. No. 317-318] is **GRANTED**;
2. All other pending motions [Doc. Nos. 319, 321, 367, 369, 371, 421] are **DENIED AS MOOT**; and,

⁸ The Court notes that throughout this litigation, Impact Engine and its experts have treated various claim terms representing separate component parts of the patented system as interchangeable and advocated for interpretations that broadly substitute individual parts of the system for each other in ways not supported by the teaching of the specification. Additionally, new claim terms appear over the course of the issuance of continuation patents in this family tree that have no reference whatsoever in the specification. While the Court is mindful of not limiting claims to examples in the specification, the claims must be interpreted in light of the specification and the substituting and switching of the labels for components without anchor to the disclosure has caused much frustration for the Court in understanding the claims, the proper construction of the limitations, and the scope of the patents.

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3. The Clerk of Court shall enter **JUDGMENT** in favor of the Defendant and against Plaintiff and **CLOSE** this case.

It is **SO ORDERED**.

Dated: August 31, 2022

s/Cathy Ann Bencivengo
Hon. Cathy Ann Bencivengo
United States District Judge

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Appendix H

NOTE: This order is nonprecedential.

**UNITED STATES COURT OF APPEALS
FOR THE FEDERAL CIRCUIT**

IMPACT ENGINE, INC.,

Plaintiff-Appellant,

v.

GOOGLE LLC,

Defendant-Appellee.

2022-2291

Appeal from the United States District Court for the
Southern District of California in No. 3:19-cv-01301-
CAB-DEB, Judge Cathy Ann Bencivengo.

**ON PETITION FOR PANEL REHEARING AND
REHEARING EN BANC**

Before MOORE, *Chief Judge*, LOURIE, DYK, PROST,
REYNA, TARANTO, CHEN, HUGHES, STOLL,
CUNNINGHAM, and STARK, *Circuit Judges*.¹

PER CURIAM.

¹ Circuit Judge Newman did not participate.

ORDER

Impact Engine, Inc. filed a combined petition for panel rehearing and rehearing en banc. The petition was referred to the panel that heard the appeal, and thereafter the petition was referred to the circuit judges who are in regular active service.

Upon consideration thereof,

IT IS ORDERED THAT:

The petition for panel rehearing is denied.

The petition for rehearing en banc is denied.

The mandate of the court will issue September 13, 2024.

FOR THE COURT

September 6, 2024
Date

s/Jarrett B. Perlow
Jarrett B. Perlow
Clerk of Court

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Appendix I

**UNITED STATES COURT OF APPEALS
FOR THE FEDERAL CIRCUIT**

IMPACT ENGINE, INC.,
Plaintiff-Appellant,
v.
GOOGLE LLC,
Defendant-Appellee.

2022-2291

Appeal from the United States District Court for the
Southern District of California in No. 3:19-cv-01301-
CAB-DEB, Judge Cathy Ann Bencivengo.

JUDGMENT

THIS CAUSE having been considered, it is
ORDERED AND ADJUDGED:
AFFIRMED

FOR THE COURT

July 3, 2024
Date

s/Jarrett B. Perlow
Jarrett B. Perlow
Clerk of Court

Appendix J

RELEVANT STATUTORY PROVISIONS

The Patent Act, 35 U.S.C. § 1 *et seq.*, provides in relevant part:

35 U.S.C. § 101. Inventions patentable

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

35 U.S.C. § 112. Specification

* * * * *

(f) Element in Claim for a Combination.—

An element in a claim for a combination may be expressed as a means or step for performing a specified function without the recital of structure, material, or acts in support thereof, and such claim shall be construed to cover the corresponding structure, material, or acts described in the specification and equivalents thereof.

Appendix K

EXEMPLARY PATENT CLAIMS

U.S. Patent No. 7,870,497, Claims 1 and 9

1. A multimedia communication system comprising:

a media repository storing communication project templates and media assets of a number of content types, the project templates and media assets being accessible by a graphical user interface on a client computer via a network; and

a project builder providing the graphical user interface for the client computer via the network for local display of the graphical user interface on the client computer, the graphical user interface comprising controls to receive user input for selecting at least one communication project template from the media repository and one or more media assets, and assembling a communication based on the at least one communication project template, the project builder further including an interactive interview for display on the graphical user interface, the interactive interview providing a plurality of questions to a user for eliciting a user response pertaining to user preferences, and further receiving the user preferences about the at least one communication project template and one or more media assets to assemble the communication.

9. A multimedia communication system in accordance with claim 1, further comprising a project viewer that renders an assembled communication and transmits the rendered communication via the

network to the client computer for viewing in the graphical user interface.

U.S. Patent No. 10,565,618, Claim 14

14. A multimedia communication system for generating an online advertisement in an electronic distribution format to accommodate targeted broadcasting over an Internet based on recipient specific data received from a user of a recipient computing device, the system comprising:

a server having a connection to the Internet to communicate with a user of a recipient computing device via a graphical user interface displayed by the recipient computing device, the server comprising:

a recipient specific database for storing qualitative and/or quantitative data received from a user of the recipient computing device;

a media repository for storing a plurality of online advertisement templates and a plurality of media assets;

a project builder for accessing the recipient specific database as well as the media repository, and for selecting a media asset for integration with an advertisement template, the media asset being selected based on qualitative or quantitative data received from the recipient computing device;

a compiler associated with the project builder, the compiler for integrating the selected media asset with the online

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advertisement template to generate an online advertisement;

a formatter for selecting and formatting the online advertisement in an electronic distribution format; and

a distribution program for performing the targeted broadcasting of the online advertisement over the Internet to the recipient computing device.

U.S. Patent No. 10,068,253, Claim 12

12. A multimedia communication system for generating an online advertisement in an electronic distribution format to accommodate targeted broadcasting over the Internet based on data pertaining to one or more keywords, the system comprising:

a server having a network internet connection to communicate with a user of a client computer via a graphical user interface of the client computer, the server comprising a media repository for storing online advertisement templates and media assets;

the server further comprising a project builder, the project builder for accessing the media repository, and generating an online advertisement based on one or more selection criterion;

the server further comprising a project viewer, the project viewer being accessible via the project builder and configured for allowing the user of the client computer to view both the media asset and the online advertisement template at the graphical user interface of the client computer, and further comprising controls for allowing the selection of the media asset for integration into the advertisement template;

the server further comprising a compiler for integrating the selected media asset with the selected online advertisement template to produce the online advertisement;

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the server further comprising a formatting program for formatting the online advertisement in a format suitable for display at one or more of a web page and a mobile device; and

the server further comprising a distribution program for accessing the online advertisement and for broadcasting the online advertisement in a targeted format over the Internet to an advertising recipient based on the data pertaining to one or more keywords.