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UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF CALIFORNIA

BARBARO TECHNOLOGIES, LLC,
Plaintiff,
v.
NIANTIC, INC.,
Defendant.

Case No. [18-cv-02955-RS](#)

**ORDER GRANTING MOTION FOR
JUDGMENT ON THE PLEADINGS**

I. INTRODUCTION

Interactive virtual thematic environments which render real-time information form the backdrop of this patent dispute. Such environments are used, for present purposes, in computer gaming. Plaintiff Barbaro Technologies, LLC holds two closely related patents on such environments, US 7,373,377 (“‘377 Patent”) and US 8,228,325 (“‘325 Patent”). The ‘377 Patent is more general; the ‘325 Patent focuses on the specific case of integrating real-time location information into a three-dimensional virtual environment. Barbaro contends defendant Niantic Inc.’s Ingress and Pokemon Go games infringe on both patents. Niantic now moves for judgment on the pleadings, pursuant to Rule 12(c), alleging Claims 1, 3, and 6 of the ‘325 Patent are invalid because they claim ineligible subject matter under 35 U.S.C. § 101.¹ Pursuant to Civil Local Rule 7-1(b), the motion is suitable for disposition without oral argument, and the hearing set for May

¹ Niantic also alleges Claim 5 of the ‘325 Patent is invalid, but Barbaro states in its response to the present motion it is no longer asserting that claim.

1 28, 2020 is vacated. For the reasons set forth below, the motion is granted.

2 **II. BACKGROUND**

3 The ‘325 Patent claims a “three-dimensional virtual thematic environment” (“3D VTE”)
4 into which external information which can be fetched over the internet, for example a user’s “real-
5 world geographic location,” can be integrated. *See* ‘325 Patent, ECF No. 1-2, at 42:37–42. Claim 1
6 recites, in relevant part, a “computer system for providing a [VTE]” which “retriev[es]
7 information...from external sources over the internet,” including user location, “integrat[es] said
8 information into the [3D VTE],” and allows the user to “interact[] with the [3D VTE] as a
9 simulated real-world interaction, depending on the user’s geographical three dimensional
10 movement through [3D VTE].” *Id.* at 42:39–58. Claim 3 depends on Claim 1 and recites such a
11 system “wherein said information includes real-time information.” *Id.* at 42:64–65. Claim 6 also
12 depends on Claim 1 and recites such a system which “display[s] said information to a user in a
13 mini-application mechanism within the VTE.” *Id.* at 44:1–3.

14 **III. LEGAL STANDARD**

15 Under Section 101 of the Patent Act, “[w]hoever invents or discovers any new and useful
16 process, machine, manufacture, or composition of matter, or any new and useful improvement
17 thereof, may obtain a patent therefor....” 35 U.S.C. § 101. The Supreme Court “has long held that
18 this provision contains an important implicit exception: Laws of nature, natural phenomena, and
19 abstract ideas are not patentable.” *Alice Corp. Pty. Ltd. v. CLS Bank Int’l*, 573 U.S. 208, 216
20 (2014). While the reasoning behind the exception is clear—“such discoveries are manifestations of
21 ... nature, free to all men and reserved exclusively to none,” *Mayo Collaborative Servs. v.*
22 *Prometheus Labs., Inc.*, 566 U.S. 66, 71 (2012) (internal citations and quotations omitted)—the
23 boundaries of the exception are not quite so obvious.

24 The *Alice* court highlighted “the concern that drives this exclusionary principle as one of
25 pre-emption.” *Alice*, 573 U.S. at 216. In other words, patents that seek wholly to preempt others
26 from using a law of nature or an abstract idea—“the basic tools of scientific and technological
27 work”—are invalid. *Id.* *Alice* warns, nonetheless, that “we tread carefully in construing this
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1 exclusionary principle lest it swallow all of patent law. At some level, all inventions...embody
2 use, reflect, rest upon, or apply laws of nature, natural phenomena, or abstract ideas.” *Id.* at 217
3 (internal citations and quotations omitted). A patent may thus “involve[] an abstract concept” so
4 long as it is applied “to a new and useful end.” *Id.* “Accordingly, in applying the § 101 exception,
5 we must distinguish between patents that claim the buildin[g] block[s] of human ingenuity and
6 those that integrate the building blocks into something more, thereby transform[ing] them into a
7 patent-eligible invention.” *Id.* (internal citations and quotations omitted).

8 IV. DISCUSSION

9 A. Rule 12(c)

10 As a threshold matter, the parties disagree as to whether the issue of invalidity can be
11 resolved on a Rule 12(c) motion. In particular, Barbaro argues the invalidity issue is a factual
12 dispute which cannot be resolved on the pleadings.

13 Rule 12(c) provides that “[a]fter the pleadings are closed—but early enough not to delay
14 trial—a party may move for judgment on the pleadings.” Fed. R. Civ. P. 12(c). A motion for
15 judgment on the pleadings is “functionally identical” to a Rule 12(b)(6) motion to dismiss. *See*
16 *Dworkin v. Hustler Magazine, Inc.*, 867 F.2d 1188, 1192 (9th Cir. 1989). “Eligibility under 35
17 U.S.C. § 101 is a question of law, based on underlying facts.” *SAP Am., Inc. v. InvestPic, LLC*,
18 898 F.3d 1161, 1166 (Fed. Cir. 2018), *cert. denied*, 139 S. Ct. 2747 (2019), *reh’g denied*, 140 S.
19 Ct. 27 (2019) (internal citations omitted). “Like other legal questions based on underlying facts,
20 this question may be, and frequently has been, resolved on a Rule 12(b)(6) or (c) motion where the
21 undisputed facts, considered under the standards required by that Rule, require a holding of
22 ineligibility under the substantive standards of law.” *Id.*

23 Thus, courts can, and regularly do, decide the issue of § 101 invalidity on a Rule 12(c)
24 motion. *See id.* (collecting cases). The existence of factual disputes does not render the motion
25 improper. It simply means all allegations must be accepted as true and construed in the light most
26 favorable to the non-moving party: in this case, Barbaro. *See Turner v. Cook*, 362 F.3d 1219, 1225
27 (9th Cir. 2004). Furthermore, the moving party, i.e., Niantic, bears the burden of demonstrating

1 invalidity by clear and convincing evidence. *See* 35 U.S.C. § 282; *Microsoft Corp. v. I4I Ltd.*
 2 *P’ship*, 564 U.S. 91, 95 (2011). Niantic may not bear this burden by presenting evidence outside
 3 the pleadings—such as the declaration and exhibits attached to its reply. *See* Fed. R. Civ. P. 12(d)
 4 (“If, on a motion under Rule 12(b)(6) or Rule 12(c), matters outside the pleadings are presented to
 5 and not excluded by the court, the motion must be treated as one for summary judgment under
 6 Rule 56.”).

7 **B. Alice Step One**

8 In evaluating whether claims are patent-eligible, a court must first “determine whether the
 9 claims at issue are directed to” a “patent-ineligible concept[]” such as a law of nature, natural
 10 phenomenon, or abstract idea. *Alice*, 573 U.S. at 217. “[T]he ‘directed to’ inquiry applies a stage-
 11 one filter to claims, considered in light of the specification, based on whether their character as a
 12 whole is directed to excluded subject matter.” *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327,
 13 1335 (Fed. Cir. 2016) (internal quotations omitted). Although there is no bright-line rule for
 14 determining whether a claim is directed to an abstract idea, courts have articulated some guiding
 15 principles. When evaluating computer-related claims, courts look to whether the claims “improve
 16 the functioning of the computer itself,” *Alice*, 573 U.S. at 219, or whether “computers are invoked
 17 merely as a tool” to implement an abstract process, *Enfish*, 822 F.3d at 1336.

18 In the present case, Claims 1, 3, and 6, in light of the ‘325 Patent specification, make clear
 19 that the “focus of the claimed advance over the prior art” is integrating real-world location
 20 information into a virtual environment. *Intellectual Ventures I LLC v. Capital One Bank (USA)*,
 21 792 F.3d 1363, 1338 (Fed. Cir. 2015) (internal quotations omitted). Put in Barbaro’s own words,
 22 “the problem facing the inventor,” *ChargePoint, Inc. v. SemaConnect, Inc.*, 920 F.3d 759, 767
 23 (Fed. Cir. 2019), *cert. denied*, 140 S. Ct. 983 (2020), was that prior art did not “provide[] the user
 24 with a real-world experience. Accordingly, a way to integrate audio, video, 2D and 3D technology
 25 in order to maximize the real-world experience for the user, is desired,” *see* ‘325 Patent at 1: 32–
 26 36. “Barbaro’s invention achieves an improvement over prior virtual environments by removing
 27 the disconnect between the user in the real-world and the 3D VTE.” *See* Plaintiff’s Response in
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1 Opposition to Defendant’s Rule 12(c) Motion, ECF No. 120, at 11 (“Barbaro Response”).

2 The claims demonstrate the improvement offered by the ‘325 Patent is directed at a
3 result—integrating the real and virtual worlds—rather than at any particular method of achieving
4 it. *Interval Licensing LLC v. AOL, Inc.*, 896 F.3d 1335, 1342 (Fed. Cir. 2018) (citing *Wyeth v.*
5 *Stone*, 30 F. Cas. 723, 727 (C.C.D. Mass. 1840) (“No man can have a right to cut ice by all means
6 and methods...”). Claim 1, for example, recites a “computer system” with two standard
7 components: memory and a processor. *See* ‘325 Patent at 42: 39–40, 58. The memory must be
8 capable of running a program which retrieves information over the internet—for example the
9 user’s location—and integrates that information into a virtual environment. *Id.* at 41–52. However,
10 the claim does not recite what is unique about the computer memory used, such that some
11 specialized memory would be required, or how the enumerated tasks are to be accomplished.
12 Claims 3 and 6 depend on Claim 1, and merely add details about the type of information to be
13 retrieved (Claim 3) or the user interface (Claim 6). Again, however, they do not focus on *how* the
14 desired result is to be achieved.

15 Neither does the specification provide any detail on the mechanics. *ChargePoint*, 920 F.3d
16 at 766 (“[T]he specification may...be useful in illuminating whether the claims are ‘directed to’...
17 an abstract idea.”) (internal citation omitted). On the contrary, the specification discloses that the
18 invention can be implemented in any number of ways—on a client or server or a distributed
19 environment, via hardware or software or a mix, *see* ‘325 Patent at 26:1–12—on any number of
20 conventional devices, *see id.* at 12:57–61, 13:64–14:6 (“[T]he client may be a PC, a mobile
21 terminal, such as a mobile computing device, a mobile phone, or a mobile data organizer
22 (PDA)...”). Put differently, the invention fails to “enable[] a computer...to do things it could not
23 do before.” *Finjan, Inc. v. Blue Coat Sys., Inc.*, 879 F.3d 1299, 1305 (Fed. Cir. 2018). *See also*
24 *ChargePoint*, 920 F.3d at 769. In fact, one of the invention’s claimed benefits is that it makes use
25 of any combination of *existing* technologies.

26 Barbaro contends the present claims are analogous to those found by the Federal Circuit
27 not to be directed at abstract ideas. *Cf. Enfish*, 822 F.3d at 1334 (comparing the claims at hand to

1 prior cases in order to determine whether claims were invalid under § 101). However, each of the
 2 cases cited by Barbaro are differentiable. For example, in *Enfish v. Microsoft*, the court found
 3 claims about a database management system were not directed to an abstract idea because they
 4 were “not simply directed to *any* form of storing tabular data, but instead...specifically directed to
 5 a *self-referential* table for a computer database.” *Id.* at 1337. That is, “computers [were] not
 6 invoked merely as a tool.” *Id.* at 1336. Rather, the claims focused “on the specific asserted
 7 improvement in computer capabilities (i.e., the self-referential table for a computer database)...”
 8 *Id.* at 1335–36. Similarly, in *Thales Visionix Inc. v. United States*, 850 F.3d 1343 (Fed. Cir. 2017),
 9 the court found the claims at issue were not directed to an abstract idea because they “specif[ied] a
 10 particular configuration of inertial sensors and a particular method of using the raw data from the
 11 sensors” in order to achieve a result which was an improvement over prior art, *id.* at 1349. The
 12 court in *Visual Memory LLC v. NVIDIA Corp.*, 867 F.3d 1253 (Fed. Cir. 2017), citing *Enfish* and
 13 *Thales*, found the claims at issue were “directed to a technological improvement: an enhanced
 14 computer memory system” because the patent included “a microfiche appendix having a combined
 15 total of 263 frames of computer code” demonstrating how to implement the claimed invention, *id.*
 16 at 1259–61. *See also XpertUniverse, Inc. v. Cisco Sys., Inc.*, No. 17-cr-03848, 2018 WL 2585436,
 17 at *8 (N.D. Cal. May 8, 2018) (“[W]hile XU’s claims involve the abstract idea of connecting a
 18 customer with an inquiry to a live expert, they are ultimately directed as a specific means or
 19 method of accomplishing that result...”).

20 In the present case, unlike in *Enfish*, *Thales*, and *Visual Memory*, the claims of the ‘325
 21 Patent are not directed to the means or method of the claimed invention. They are focused on the
 22 result: allowing the user to “interact[] with the [3D VTE] as a simulated real-world interaction,
 23 depending on the user’s geographical three dimensional movement through the [3D VTE].” ‘325
 24 Patent at 42: 53–56. The specification of the ‘325 Patent recites dozens of embodiments of the
 25 claimed result, accomplished by a variety of existing technologies, as discussed above, but does
 26 not purport to make any improvements to them.

27 This case is more like those cited by Niantic in which the Federal Circuit found that
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1 “claims related to customizing information based on (1) information known about the user and (2)
2 [specific] data are directed to abstract ideas.” *In re Morsa*, No. 19-cv-01757, 2020 WL 1815749,
3 at *3 (Fed. Cir. Apr. 10, 2020) (internal citations and quotations omitted) (alteration in original).
4 For example, in *Electric Power Group, LLC v. Alstom S.A.*, 830 F.3d 1350 (Fed. Cir. 2016), the
5 court considered claims which recited a method for collecting information about events happening
6 on an electric power grid, analyzing this information in real-time, and detecting events or
7 diagnosing problems, *id.* at 1351–52. The court concluded the claims were directed to the abstract
8 idea of “collecting information, analyzing it, and displaying certain results of the collection and
9 analysis,” because “[i]nformation as such is an intangible.” *Id.* at 1353 (internal citations omitted).
10 Similarly, in *Move, Inc. v. Real Estate All. Ltd.*, 721 F. App’x 950 (Fed. Cir.), *cert. denied*, 139 S.
11 Ct. 457 (2018), the court found claims about displaying real estate properties based on a user-
12 selected area of a map were directed to an abstract idea—“the collection, organization,
13 manipulation, [and] display of data”—and “devoid of any implementation details,” *id.* at 954–55.
14 Claims 1, 3, and 6 of the ‘325 Patent are similarly directed to the collection and display of data—
15 in this case, a user’s real-time location within a VTE—but do not “recite any assertedly inventive
16 technology for improving computers as tools....” *Interval Licensing*, 895 F.3d at 1344. Rather,
17 they are “so result-based that they amount[] to patenting the patent-ineligible concept itself.” *Id.*

18 Contrary to Barbaro’s accusation, its claims are not directed to an abstract idea because
19 they are directed to software, as opposed to hardware. Indeed “software can make non-abstract
20 improvements to computer technology just as hardware improvements can.” *Enfish*, 822 F.3d at
21 1335. Rather, these claims are directed to an abstract idea because they “do not enable computers
22 to operate more quickly or efficiently, nor do they solve any technological problem.” *Customedia*
23 *Techs., LLC v. Dish Network Corp.*, 951 F.3d 1359, 1365 (Fed. Cir. 2020). Rather, computers are
24 simply invoked as a tool for solving a problem that has predated them: integrating real-world
25 information about a user into a virtual model. *See also Trading Techs. Int’l, Inc. v. IBG LLC*, 921
26 F.3d 1378, 1385 (Fed. Cir. 2019). Claims 1, 3, and 6 of the ‘325 Patent are therefore directed to an
27 abstract idea: in Barbaro’s own words: “remov[ing] the disconnect between the user in the real-
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1 world and [a]...VTE.” Barbaro Response at 16.

2 **C. Alice Step Two**

3 If claims are directed to a patent-ineligible abstract idea, a court must then “consider the
4 elements of each claim both individually and as an ordered combination to determine whether the
5 additional elements transform the nature of the claim into a patent-eligible application.” *Enfish*,
6 822 F.3d at 1334 (internal citations and quotations omitted). This step entails the “search for an
7 inventive concept—i.e., an element or combination of elements that is sufficient to ensure that the
8 patent in practice amounts to significantly more than a patent upon the [ineligible concept]
9 itself.” *Alice*, 573 U.S. at 217–18 (internal citations and quotations omitted). “For the role of a
10 computer in a computer-implemented invention to be deemed meaningful in the context of this
11 analysis, it must involve more than performance of well-understood, routine, [and] conventional
12 activities previously known to the industry.” *Content Extraction & Transmission LLC v. Wells*
13 *Fargo Bank, N.A.*, 776 F.3d 1343, 1347–48 (Fed. Cir. 2014). “[T]he mere recitation of a generic
14 computer cannot transform a patent-ineligible abstract idea into a patent-eligible invention.” *Id.* at
15 1348. However, “an inventive concept can be found in the non-conventional and non-generic
16 arrangement of known, conventional pieces.” *BASCOM Glob. Internet Servs., Inc. v. AT&T*
17 *Mobility LLC*, 827 F.3d 1341, 1350 (Fed. Cir. 2016).

18 Barbaro argues the claims here necessarily present an inventive concept because they solve
19 a uniquely technical problem: integrating information about the real world into a virtual world,
20 i.e., a computer game. That framing, however, ignores the fact that computer games were not the
21 *original* virtual worlds. The concept of building models of real-world locations, and integrating
22 the user’s location into said models, long predates computers. *Cf. DDR Holdings, LLC v.*
23 *Hotels.com, L.P.*, 773 F.3d 1245, 1257 (Fed. Cir. 2014) (finding claims valid because “they do not
24 merely recite the performance of some business practice known from the pre-Internet world along
25 with the requirement to perform it on the Internet”); *Bridge & Post, Inc. v. Verizon Commc’ns,*
26 *Inc.*, 778 F. App’x 882, 887 (Fed. Cir. 2019). Consider, for example, architectural models of real-
27 world locations, “miniature towns” displayed at town halls or museums, board games based on

1 world maps, or “sand tables” used by the military. *See* Defendant’s Reply In Support of Rule 12(c)
2 Motion, ECF No. 121, at 4. Each of these virtual worlds has historically allowed user interaction
3 via “avatars” placed within the model or map. *Id.*

4 Transforming this pre-Internet abstract idea into a patent-eligible claim “requires more
5 than simply stating the abstract idea while adding the words ‘apply it’ [to computers].” *Alice*, 573
6 U.S. at 222 (alteration and internal citation omitted). However, the claims at hand “recite only
7 generic computer components,” and in fact claim to be implementable via a wide range of
8 “generic and functional hardware.” *Customedia*, 951 F.3d at 1366. *See also SAP*, 898 F.3d at 1170
9 (“[Invoking] already-available computers that are not themselves plausibly asserted to be an
10 advance... amounts to a recitation of what is well-understood, routine, and conventional.”); *Elec.*
11 *Power Grp.*, 830 F.3d at 1355; *Intellectual Ventures*, 792 F.3d at 1368. The ‘325 Patent
12 specification repeatedly invokes the use of “standard” technologies: a “standard communication
13 device,” ‘325 Patent at 28:37, “standard internet channels,” *id.* at 28: 50–51, “standard transaction
14 interfaces,” *id.* at 28:61, a “standard communications and drivers protocol,” *id.* at 29:55–56, and
15 so on. The failure to provide, or even suggest, “technological details” is fatal to the claims’
16 validity. *In re Morsa*, 2020 WL 1815749, at *5.

17 V. CONCLUSION

18 For the reasons set forth above, Claims 1, 3, and 6 of the ‘325 Patent are directed to
19 abstract ideas and fail to recite incentive concepts. They therefore claim ineligible subject matter
20 under 35 U.S.C. § 101.

21
22 **IT IS SO ORDERED.**

23
24 Dated: May 21, 2020

25 

26 RICHARD SEEBORG
27 United States District Judge