

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE

NORTHWESTERN UNIVERSITY,)	
)	
Plaintiff,)	
)	
v.)	C.A. No. 21-149 (MN)
)	
UNIVERSAL ROBOTS A/S and)	
UNIVERSAL ROBOTS USA, INC.,)	
)	
Defendants.)	

NORTHWESTERN UNIVERSITY,)	
)	
Plaintiff,)	
)	
v.)	C.A. No. 21-150 (MN)
)	
ABB LTD. and ABB INC.,)	
)	
Defendants.)	

MEMORANDUM ORDER

At Wilmington this 28th day of March 2022:

As announced at the hearing on March 3, 2022, IT IS HEREBY ORDERED that:

1. Universal Robots A/S and Universal Robots USA, Inc.’s (“Defendants”) Motion to Dismiss for Failure to State a Claim (C.A. No. 21-149, D.I. 21) is DENIED; and
2. ABB Ltd. and ABB Inc.’s (“Defendants”) Motion to Dismiss for Failure to State a Claim (C.A. No. 21-150, D.I. 22) is DENIED.

Defendants moved to dismiss the complaints in each of their actions pursuant to Rule 12(b)(6) of the Federal Rules of Civil Procedure, alleging that the claims of U.S. Patent Nos. 6,907,317 (“the ’317 Patent”), 6,928,336 (“the ’336 Patent”), and 7,120,508 (“the ’508 Patent”)

are invalid as claiming ineligible subject matter under 35 U.S.C. § 101.¹ In a footnote, Defendants also sought dismissal of Plaintiff's allegations of direct and indirect infringement under Rule 12(b)(6) as insufficiently pled under *Iqbal / Twombly*. (D.I. 22 at 6 n.5). Defendants' motions were fully briefed as of August 5, 2021,² and the Court received further submissions regarding a Northern District of Illinois decision that held the claims in the patents-at-issue patent-eligible under § 101. (See D.I. 26, 27). The Court carefully reviewed all submissions in connection with Defendants' motions, heard oral argument (D.I. 32), and applied the following legal standard in reaching its decision:

I. LEGAL STANDARDS

A. Motion to Dismiss for Failure to State a Claim

In ruling on a motion to dismiss pursuant to Rule 12(b)(6), the Court must accept all well-pleaded factual allegations in the complaint as true and view them in the light most favorable to the plaintiff. See *Mayer v. Belichick*, 605 F.3d 223, 229 (3d Cir. 2010); see also *Phillips v. Cnty. of Allegheny*, 515 F.3d 224, 232-33 (3d Cir. 2008). “[A] court need not ‘accept as true allegations that contradict matters properly subject to judicial notice or by exhibit,’ such as the claims and the patent specification.” *Secured Mail Sols. LLC v. Universal Wilde, Inc.*, 873 F.3d 905, 913 (Fed. Cir. 2017) (quoting *Anderson v. Kimberly-Clark Corp.*, 570 F. App'x 927, 931 (Fed. Cir. 2014)). Dismissal under Rule 12(b)(6) is only appropriate if a complaint does not contain “sufficient factual matter, accepted as true, to ‘state a claim to relief that is plausible on its face.’” *Ashcroft v. Iqbal*, 556 U.S. 662, 678 (2009) (quoting *Bell Atl. Corp. v. Twombly*, 550 U.S. 544,

¹ Defendants' motions are substantively identical and so all citations to docket items will be made to C.A. No. 21-149. See C.A. No. 21-149, D.I. 22 at 1 n.1; C.A. No. 21-150, D.I. 23 at 1 n.1.

² (See C.A. No. 21-149, D.I. 21–24; C.A. No. 21-150, D.I. 22–25).

570 (2007)); *see also Fowler v. UPMC Shadyside*, 578 F.3d 203, 210 (3d Cir. 2009). “[P]atent eligibility can be determined at the Rule 12(b)(6) stage . . . when there are no factual allegations that, taken as true, prevent resolving the eligibility question as a matter of law.” *Aatrix Software, Inc. v. Green Shades Software, Inc.*, 882 F.3d 1121, 1125 (Fed. Cir. 2018).

B. Patent-Eligible Subject Matter

Section 101 of the Patent Act provides that anyone who “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. 35 U.S.C. § 101. The Supreme Court has recognized three exceptions to the broad categories of subject matter eligible for patenting under § 101: laws of nature, physical phenomena, and abstract ideas. *Alice Corp. Pty. v. CLS Bank Int’l*, 573 U.S. 208, 216 (2014). These exceptions “are ‘the basic tools of scientific and technological work’ that lie beyond the domain of patent protection.” *Ass’n for Molecular Pathology v. Myriad Genetics, Inc.*, 569 U.S. 576, 589 (2013) (quoting *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 566 U.S. 66, 77-78 (2012)); *see also Alice*, 573 U.S. at 216. A claim to any one of these exceptions is directed to ineligible subject matter under § 101. “[W]hether a claim recites patent eligible subject matter is a question of law which may contain underlying facts.” *Berkheimer v. HP Inc.*, 881 F.3d 1360, 1368 (Fed. Cir. 2018).

Courts follow a two-step “framework for distinguishing patents that claim laws of nature, natural phenomena, and abstract ideas from those that claim patent-eligible applications of those concepts.” *Alice*, 573 U.S. at 217; *see also Mayo*, 566 U.S. at 77-78. First, at step one, the Court determines whether the claims are directed to one of the three patent-ineligible concepts. *Alice*, 573 U.S. at 217. If the claims are not directed to a patent-ineligible concept, “the claims satisfy § 101 and [the Court] need not proceed to the second step.” *Core Wireless Licensing S.A.R.L. v.*

LG Elecs., Inc., 880 F.3d 1356, 1361 (Fed. Cir. 2018). If, however, the Court finds that the claims at issue are directed a patent-ineligible concept, the Court must then, at step two, search for an “inventive concept” – *i.e.*, “an element or combination of elements that is ‘sufficient to ensure that the patent in practice amounts to significantly more than a patent upon the [ineligible concept] itself.’” *Alice*, 573 U.S. at 217-18 (alteration in original) (quoting *Mayo*, 566 U.S. at 72-73).

1. Step One of the *Alice* Framework

At step one of *Alice*, “the claims are considered in their entirety to ascertain whether their character as a whole is directed to excluded subject matter.” *Internet Patents Corp. v. Active Network, Inc.*, 790 F.3d 1343, 1346 (Fed. Cir. 2015); *see also Affinity Labs of Texas, LLC v. DIRECTV, LLC*, 838 F.3d 1253, 1257 (Fed. Cir. 2016) (step one looks at the “focus of the claimed advance over the prior art” to determine if the claim’s “character as a whole” is to ineligible subject matter). In addressing step one of *Alice*, the Court should be careful not to oversimplify the claims or the claimed invention because, at some level, all inventions are based upon or touch on abstract ideas, natural phenomena, or laws of nature. *Alice*, 573 U.S. at 217; *see also McRO, Inc. v. Bandai Namco Games Am. Inc.*, 837 F.3d 1299, 1313 (Fed. Cir. 2016). “At step one, therefore, it is not enough to merely identify a patent-ineligible concept underlying the claim; [courts] must determine whether that patent-ineligible concept is what the claim is ‘directed to.’” *Rapid Litig. Mgmt. Ltd. v. CellzDirect, Inc.*, 827 F.3d 1042, 1050 (Fed. Cir. 2016).

2. Step Two of the *Alice* Framework

At step two of *Alice*, in searching for an inventive concept, the Court looks at the claim elements and their combination to determine if they transform the ineligible concept into something “significantly more.” *Alice*, 573 U.S. at 218; *see also McRO*, 837 F.3d at 1312. This second step is satisfied when the claim elements “involve more than performance of ‘well-

understood, routine, [and] conventional activities previously known to the industry.” *Berkheimer*, 881 F.3d at 1367 (citation and internal quotation marks omitted); *see also Mayo*, 566 U.S. at 73. “The inventive concept inquiry requires more than recognizing that each claim element, by itself, was known in the art. . . . [A]n inventive concept can be found in the non-conventional and non-generic arrangement of known, conventional pieces.” *Bascom Glob. Internet Servs., Inc. v. AT&T Mobility LLC*, 827 F.3d 1341, 1350 (Fed. Cir. 2016). Whether claim elements or their combination are well-understood, routine, or conventional to a person of ordinary skill in the art is a question of fact. *Berkheimer*, 881 F.3d at 1368.

At both steps of the *Alice* framework, courts often find it useful “to compare the claims at issue with claims that have been considered in the now considerably large body of decisions applying § 101.” *TMI Sols. LLC v. Bath & Body Works Direct, Inc.*, No. 17-965-LPS-CJB, 2018 WL 4660370, at *5 (D. Del. Sept. 28, 2018) (citing *Amdocs (Israel) Ltd. v. Openet Telecom, Inc.*, 841 F.3d 1288, 1294 (Fed. Cir. 2016)); *see also Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1334 (Fed. Cir. 2016).

C. Pleading Direct Infringement

Liability for direct infringement arises under 35 U.S.C. § 271(a) when a party, without authorization, “makes, uses, offers to sell, or sells any patented invention, within the United States or imports into the United States any patented invention during the term of the patent.” The activities set forth in § 271(a) do not result in direct infringement unless the accused product embodies the complete patented invention. *See Rotec Indus., Inc. v. Mitsubishi Corp.*, 215 F.3d 1246, 1252 & n.2 (Fed. Cir. 2000). Therefore, to state a claim of direct infringement sufficient to withstand a motion to dismiss, a plaintiff must plead facts that plausibly suggest that the accused

product meets each limitation of the asserted claim(s). See *TMI Sols. LLC v. Bath & Body Works Direct, Inc.*, C.A. No. 17-965-LPS-CJB, 2018 WL 4660370, at *9 (D. Del. Sept. 28, 2018).

The Federal Circuit has provided guidance on pleading direct infringement under *Iqbal / Twombly*. See generally *Disc Disease Sols. Inc. v. VGH Sols., Inc.*, 888 F.3d 1256 (Fed. Cir. 2018). In *Disc Disease*, the Federal Circuit reversed the district court’s dismissal of plaintiff’s direct infringement claims, finding that the plaintiff’s allegations were sufficient under the plausibility standard of *Iqbal* and *Twombly* because the complaint specifically identified the three accused products and alleged that the accused products met “each and every element of at least one claim” of the asserted patents, either literally or equivalently. *Disc Disease*, 888 F.3d at 1260. Following *Disc Disease*, another court in this District similarly found that a plaintiff plausibly pleaded an infringement claim where the complaint specifically identified the infringing product and alleged “that it practices each limitation of at least one claim in” the relevant patents. *Promos Tech., Inc. v. Samsung Elec. Co.*, No. 18-307-RGA, 2018 WL 5630585, at *4 (D. Del. Oct. 31, 2018); see also *AgroFresh Inc. v. Hazel Techs., Inc.*, No. 18-1486-MN, 2019 WL 1859296, at *2 (D. Del. Apr. 25, 2019) (applying *Disc Disease* to find allegations of direct infringement sufficiently pleaded); *DoDots Licensing Sols. LLC v. Lenovo Holding Co.*, No. 18-98-MN, 2018 WL 6629709, at *2 (D. Del. Dec. 19, 2018) (same).³

II. THE COURT’S RULING

The ruling on Defendants’ motions to dismiss⁴ under Rule 12(b)(6) was announced from the bench at the conclusion of the hearing as follows:

³ The legal standard for direct infringement set forth in this Memorandum Order is derived from the Court’s opinions in *DoDots* and *AgroFresh*.

⁴ (C.A. No. 21-149, D.I. 21; C.A. No. 21-150, D.I. 22).

Thank you for the arguments today. I am prepared to rule on the pending motions. I will not be issuing a written opinion but I will issue an order stating my ruling. I want to emphasize that although I am not issuing a written opinion, we have followed a full and thorough process before making the decisions I am about to state. There was briefing on the pending motions, there were additional submissions, including those discussing additional case law and there has been oral argument here today. All of the submissions and the arguments have been carefully considered.

As to the law, I am not going to read into the record my understanding of Section 101 law or the applicable pleading standards. I am applying the relevant legal standards set out by recent Federal Circuit cases.

Now for my ruling. There are three patents [U.S. Patent Nos. 6,907,317, 6,928,336, and 7,120,508] asserted in the First Amended Complaint. All of the patents share a specification and relate to intelligent assist systems and industrial robots that utilize a modular architecture of components for greater collaborative capacity with humans. The three patents have a combined 85 claims.

Defendants have moved to dismiss the First Amended Complaint asserting that the claims of the three patents are directed to an abstract idea and lack inventive concepts sufficient to render them patent eligible under § 101.

First, I want to address representativeness of the claims discussed. Plaintiffs' First Amended Complaint and Defendants' motions reproduced the first claim from each of the three patents. In Defendants' opening briefs, they never used the term "representative" to describe any claim. They did, however, discuss the additional limitations of some dependent claims and Defendants addressed the particular limitation of the dependent claims that Plaintiff identified in its papers.

And Plaintiffs today agreed that claim 1 of each of the claims of the asserted patents is representative of the other claims of that patent to the extent that I were to find that those claims – all independent claims – are not directed to an abstract idea. Given that agreement and because I find that the claims are substantially similar and nothing I've seen or heard suggests those claims are not representative, I will accept that those claims are representative of the other claims of those respective patents.

Let's go to step one of *Alice*. Defendants contend that the asserted patents are “directed to the abstract idea of communication over a network for interacting with existing systems for moving payloads.”^[5] Defendants characterize the patents as using known techniques with standard components to facilitate factory equipment communication and networking. As Defendants point out, humans have long directed the movement of equipment across a factory floor. Thus, to Defendants, the asserted Patents “simply replace age-old actions of people with generic computer components.”^[6]

Defendants analogize the asserted patents to those at issue in *ChargePoint, Inc. v. SemaConnect, Inc.*, 920 F.3d 759 (Fed. Cir. 2019). The patents in *ChargePoint* claimed network-connected charging stations for electric vehicles. The specification of those patents detailed the lack of communication over a network that would allow individuals and entities to interact efficiently with respect to electrical needs, and the claimed solution enabled such communication.

Accordingly, the Federal Circuit held that these claims were directed to the “abstract idea of network communication for device interaction,”^[7] noting the broad breadth of the claims and the fact that the specification never suggests that the charging station is improved from a technical perspective. In the Defendants’ view, “the Asserted Patents claim the same ‘abstract idea of communication over a network for interacting with a device’ that the Federal Circuit deemed patent ineligible in *ChargePoint*.”^[8] Defendants assert that the patents’ “modular architecture” does not make the claims patent eligible as they claim modularity is, itself, an abstract idea.^[9] Ultimately, Defendants assert that the asserted patents simply automate something that humans have long done, and are therefore directed to a patent ineligible concept at step one.

Plaintiff, of course, disagrees with the Defendants’ characterization. Plaintiff claims that “[t]he patents here are directed not to an abstract idea, but to specific improvements to existing technology: a modular architecture that specifies an arrangement of components that distributes control and gives rise to a new type of robot with greater

⁵ (No. 21-149, D.I. 22 at 11).

⁶ (*Id.* at 10).

⁷ *Chargepoint*, 920 F.3d at 770.

⁸ (No. 21-149, D.I. 22 at 12–13).

⁹ (*Id.* at 13–14).

autonomy and more intelligence of its surroundings.”^[10] Plaintiff aligns its claims with those deemed patent eligible in *Enfish*, asserting that its patents “specifically claim concrete improvements to preexisting assist systems and industrial robots.”^[11] Plaintiff points to claims of the asserted patents that use a modular architecture to, in its view, create a more controlled, efficient, and safe industrial robot.^[12]

Here, I agree with Plaintiff. The claims are directed to improvements in technology, not to an abstract idea.^[13] The claims of the ’336 patent describe an intelligent assist system with specified components, the claims of the ’508 patent describe a configuration system for an intelligent system with specified components, and the ’317 patent describes a multi-function hub, that serves as a communication center, for use in an intelligent system, with specified components that interact. The claims appear to be directed to an improved intelligent system with a particular modular architecture, not an abstract result or effect that merely invokes generic processes or machinery. The language of these claims is analogous to those deemed patent-eligible in *Thales Visionix Inc. v. United States*, 850 F.3d 1343, 1348–49 (Fed. Cir. 2017), as the claims invoke a specific, defined architecture to improve the functioning of intelligent assist systems.

The written description of the patents accords with this reading of the claims. “The ‘directed to’ inquiry may also involve looking to the specification to understand ‘the problem facing the inventor’ and, ultimately, what the patent describes as the invention.”^[14] Here, the shared specification states that “[c]ontrolling the motion of the moving payload” is a problem that caused physical injury to workers and lower productivity.^[15] It detailed the importance of being able to quickly and intuitively interact with an intelligent assist device system by programming it.^[16] Accordingly, the

¹⁰ (No. 21-149, D.I. 23 at 8).

¹¹ (*Id.*).

¹² (*Id.* at 8–10).

¹³ “The § 101 inquiry must focus on the language of the Asserted Claims themselves.” *Synopsys, Inc. v. Mentor Graphics Corp.*, 839 F.3d 1138, 1149 (Fed. Cir. 2016).

¹⁴ *ChargePoint, Inc. v. SemaConnect, Inc.*, 920 F.3d 759, 767 (Fed. Cir. 2019).

¹⁵ (’336 Patent, 1:38–54).

¹⁶ (’336 Patent, 2:14–57).

inventors claim to create a “modular architecture of components that can be programmed to create intelligent assist devices (IADs) from a number of components.”^[17] The specification asserts that, as compared to the prior art, this invention improves worker productivity, better supports workers’ health, and has important safety benefits.^[18] In view of all of this, Plaintiff’s characterization of its claims as “improvements over the intelligent assist devices that existed at the time” is substantially supported by the shared specification of these patents.^[19]

I also do not find Defendants’ arguments that the claims are directed to “communication” à la the patents in *ChargePoint* persuasive. In *ChargePoint*, the specification of the patents focused on the need for “network-controlled charging stations,” and the inventors responded to this need by implementing the abstract idea of communication over a network for interacting with electric vehicle charging stations.^[20] The inventors never stated that “that the charging station itself is improved from a technical perspective, or that it would operate differently than it otherwise could.”^[21] But here, the shared specification details that the claimed invention was directed to a system for making intelligent assist device systems more easily controllable, intuitive, efficient, and safe. That the claimed invention does so in part through the use of communication devices is of no consequence, for every invention makes use of abstract concepts in a general sense. And, unlike the claims in *ChargePoint*, which were directed to implementing the abstract idea of communication between devices, I am satisfied that the claim language here focuses on an improved intelligent assistant device system.

Moreover, I am not convinced by Defendants’ more general assertion that the claims are directed to “replac[ing] age-old actions of people with generic computer components.”^[22] Of course, merely automating that which is patent-ineligible does not render something patent-eligible. But, as described above, this is not how I view the claims. The claims are directed to an improved intelligent

¹⁷ ('336 Patent, 2:64–66).

¹⁸ ('336 Patent, 4:31–56; *see also id.* 2:58-3:24' 6:37-52).

¹⁹ (No. 21-149, D.I. 18 at 37–40).

²⁰ 920 F.3d 759–68 (Fed. Cir. 2019).

²¹ *Id.*

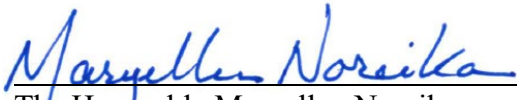
²² (No. 21-149, D.I. 22 at 10).

assistant device system, not an automated method of communicating, as Defendants suggest.^[23]

Last, Defendants take issue with Plaintiff’s pointing to the claimed inventions’ “modular architecture” as a way of bolstering their patent-eligibility argument. Defendants state that Plaintiff may not do so because “modularity [] is itself an abstract idea.”^[24] However, I am convinced that the claims are not directed to any abstract idea underlying modularity, but instead utilized modular architecture, alongside other claimed features, to deliver a technological improvement.

So for the reasons I just stated, I conclude that the claims of the ’336, ’317, and ’508 Patents are directed to patent-eligible subject matter at the first step of the *Alice* framework and I need not and will not address the second step.^[25] The claims are patent eligible under 35 U.S.C. § 101. Defendants’ motions based on § 101 are denied.

That being said, let me note that in a footnote, Defendants argued that the complaint omitted a “critical limitation” in asserting infringement and said that was an independent basis to dismiss. That issue was not argued today and courts traditionally do not consider arguments presented entirely in footnotes.^[26] And I have been given no compelling reason to do so here. So to the extent that issue was raised, the motions are also denied on that basis, too.


The Honorable Maryellen Noreika
United States District Judge

²³ (*Id.* at 10).

²⁴ (*Id.* at 13).

²⁵ *Thales Visionix Inc. v. United States*, 850 F.3d 1343, 1349 (Fed. Cir. 2017) (“Because we find the claims are not directed to an abstract idea, we need not proceed to step two.”)

²⁶ *See Horatio Washington Depot Tech. LLC v. TOLMAR, Inc.*, 2018 WL 5669168, at *13 (D. Del. Nov. 1, 2018) (declining to consider an argument raised entirely in a footnote); *UCB, Inc. v. Accord Healthcare, Inc.*, 201 F.Supp.3d 491, 542 n.33 (D. Del. 2016) (“Arguments that are presented in limited form in footnotes are entitled to little weight.”); *Campbell v. Sussex Cty. Fed. Credit Union*, 2015 WL 3918946, at *1 (D. Del. June 22, 2015) (stating that “[t]he Court will not address issues raised in footnotes”); *see also SmithKline Beecham Corp. v. Apotex Corp.*, 439 F.3d 1312, 1320 (Fed. Cir. 2006) (stating that arguments raised only in footnotes are not preserved).