

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

DK CROWN HOLDINGS INC. (FORMERLY DRAFTKINGS, INC.),
A DELAWARE CORPORATION,
Petitioner,

v.

DIOGENES LIMITED,
Patent Owner.

IPR2023-00267
U. S. Patent Number 10,997,822 B2
Attorney Docket No.: 087764.0109

PETITIONER'S OPPOSITION TO MOTION TO AMEND

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EXHIBIT LIST

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1001	U.S. Patent No. 10,997,822 (“the ’822 Patent”)
1002	Prosecution File History for the ’822 Patent
1003	File History for U.S. Patent No. 9,117,341
1004	U.S. Patent Application Publication No. 2008/0113765 A1 (“DeWaal”)
1005	U.S. Patent Application Publication No. 2008/0311981 A1 (“Schugar”)
1006	U.S. Patent Application Publication No. 2012/0309503 A1 (“Scott”)
1007	Declaration of Dwight Crevelt
1008	<i>Curriculum Vitae</i> of Dwight Crevelt
1009	Vishal Jain & Jyoti Moy Chatterjee, <i>Machine Learning with Health Care Perspective</i> (Springer 2020)
1010	Christiani Hugonii, The Value of all Chances in Games of Fortune; Cards, Dice, Wagers, Lotteries, &C. Mathematically Demonstrated (printed 1741)
1011	C.C. Heyde & E. Seneta, <i>Statisticians of the Centuries</i> (Springer 2001)
1012	Jui-Pin Cheng, <i>The Origin of Probability and The Problem of Points</i> (2000), https://sites.math.rutgers.edu/~cherlin/History/Papers2000/cheng.html
1013	Nicholas Hammond, <i>The Cambridge Companion to Pascal</i> (Cambridge University Press 2003)
1014	Prakash Gorroochurn, <i>Thirteen Correct Solutions to the “Problem of Points” and Their Histories</i> , THE MATHEMATICAL INTELLIGENCER (Springer 2014)
1015	Keith Devlin, <i>The Unfinished Game: Pascal, Fermat, and the Seventeenth-Century Letter that Made the World Modern</i> (Basic Books 2008)

EX[No.]	Description of Documents
1016	Anders Hald, <i>A History of Probability and Statistics and Their Applications before 1750</i> (John Wiley & Sons 2003)
1017	Adam Prügel-Bennett, <i>The Probability Companion for Engineering and Computer Science</i> (Cambridge University Press 2019)
1018	Elizabeth A. Killick & Mark D. Griffiths, <i>In-Play Sports Betting: a Scoping Study</i> , 17 INT J MENT HEALTH ADDICTION 1456 (Apr. 16, 2018)
1019	<i>What is In-Play Betting: Live Betting Explained by William Hill</i> , WILLIAMHILL.COM (Apr. 20, 2021), https://news.williamhill.com/betting-guides/in-play-betting/
1020	Mark O’Haire, <i>The History of Betting</i> , TheSetPieces (2021), https://thesetpieces.com/latest-posts/the-history-of-betting/
1021	U.S. Patent No. 9,117,341 (“the ’341 Patent”)
1022	Chris Summers, <i>How Does a Betting Exchange Work?</i> , BBC News (Dec. 7, 2007)
1023	Landi, Gianluca, <i>Betting Exchange: The Sports Trading Revolution</i> (StreetLib 2017)
1024	Declaration of Bernard J. Marantelli, Australian Patent Application No. 2013333573 (Jun. 18, 2016)
1025	Vaughan Williams & Donald S. Siegal, <i>The Oxford Handbook of the Economics of Gambling</i> (Oxford University Press 2013)
1026	Mark Davies <i>et al.</i> , <i>Betfair.com: Five Technology Forces Revolutionize Worldwide Wagering</i> , 23 EUROPEAN MANAGEMENT JOURNAL 533 (Oct. 2005)
1027	U.S. Patent No. 7,909,694 (“Schugar ’694”)
1028	Betfair Trading Software, <i>About Bet Angel Software</i> (via The Wayback Machine dated Dec. 26, 2007)
1029	Green All Over Blog (Dec. 7, 2008)

EX[No.]	Description of Documents
1030	Dan Thomas, <i>Betfair's 'Cash Out' Trading Tool Used for the Millionth Time</i> , BETTFAIR (Sept. 13, 2011)
1031	Betfair Financial Statement (Jun. 29, 2011)
1032	Dan Thomas, <i>Cash Out Comes to Betfair Mobile</i> , Betfair (Dec. 19, 2011)
1033	Michael Taylor, <i>Cash In My Bet with William Hill</i> , WILLIAMHILL.COM (Dec. 18, 2012)
1034	Tal Grant <i>et al.</i> , <i>UK Gaming</i> , Credit Suisse (Aug. 14, 2017)
1035	James Conrey McMath, <i>Speculation and Gambling in Options, Futures and Stocks in Illinois</i> (Hawkins & Loomis 1921)
1036	LeRoy Gross, <i>The Conservative Investor's Guide to Trading Options</i> (Wiley 1999)
1037	Stuart Banner, <i>Speculation: A History of the Fine Line Between Gambling and Investing</i> (Oxford University Press 2017)
1038	E.V. Smalley, <i>Northern Pacific Railroad Book of Reference</i> (E. Wells Sackett & Rankin 1883)
1039	Wesley A. Sturges <i>et al.</i> , <i>Stock Option and Stock Purchase Plans</i> (U.S. Gov't Printing Office 1952)
1040	Michael C. Thomsett, <i>Getting Started in Options</i> (Wiley 2007)
1041	Lawrence G. McMillan, <i>McMillan on Options</i> (Wiley 2011)
1042	The Sports Trader, <i>The Diary of a Betdaq Trader</i> (Dec. 5, 2007)
1043	Betfair Community, <i>Football Forum</i> (Dec. 11, 2009), https://community.betfair.com/football/go/thread/view/94070/23545078/i-didnt-think-you-got-your-green-until-after-events-were-finished?post_id=421340998#421340998#flvWelcomeHeader

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1044	Betfair Community, <i>Golf Forum</i> at 1 (Apr. 9, 2010), https://community.betfair.com/golf/go/thread/view/94086/23563950/masters-day-2---in-running?liveView=0&pg=53
1045	Betfair Community, <i>General Betting Forum</i> (Dec. 10, 2010)
1046	Betfair Community, <i>General Betting Forum</i> at 3 (Jun. 8, 2011)
1047	U.S. Patent Application Publication No. 2001/0136566 A1 (“Acres”)
1048	Exhibit 338.A to Plaintiffs’ Initial Infringement Contentions, <i>Diogenes Limited v. DraftKings, Inc.</i> , C.A. No. 21-1695-MN-CJB
1049	Exhibit 341.A to Plaintiffs’ Initial Infringement Contentions, <i>Diogenes Limited v. DraftKings, Inc.</i> , C.A. No. 21-1695-MN-CJB
1050	Exhibit 439.A to Plaintiffs’ Initial Infringement Contentions, <i>Diogenes Limited v. DraftKings, Inc.</i> , C.A. No. 21-1695-MN-CJB
1051	Exhibit 516.A to Plaintiffs’ Initial Infringement Contentions, <i>Diogenes Limited v. DraftKings, Inc.</i> , C.A. No. 21-1695-MN-CJB
1052	Exhibit 716.A to Plaintiffs’ Initial Infringement Contentions, <i>Diogenes Limited v. DraftKings, Inc.</i> , C.A. No. 21-1695-MN-CJB
1053	Exhibit 779.A to Plaintiffs’ Initial Infringement Contentions, <i>Diogenes Limited v. DraftKings, Inc.</i> , C.A. No. 21-1695-MN-CJB
1054	Exhibit 822.A to Plaintiffs’ Initial Infringement Contentions, <i>Diogenes Limited v. DraftKings, Inc.</i> , C.A. No. 21-1695-MN-CJB
1055	Exhibit 969.A to Plaintiffs’ Initial Infringement Contentions, <i>Diogenes Limited v. DraftKings, Inc.</i> , C.A. No. 21-1695-MN-CJB
1057	Deposition Transcript of Dr. Olaf Vancura, Vol. I (Nov. 13, 2023)
1058	Deposition Transcript of Dr. Olaf Vancura, Vol. II (Nov. 17, 2023)
1059	U.S. Patent No. 8,721,439 (“’439 Patent”)

1060	Report and Recommendation, <i>Diogenes Limited v. DraftKings, Inc.</i> , C.A. No. 21-1695-MN-CJB
1061	Order, <i>Diogenes Limited v. DraftKings, Inc.</i> , C.A. No. 21-1695-MN-CJB
1062	Reserved
1063	First Amended Complaint, <i>Diogenes Limited v. DraftKings, Inc.</i> , C.A. No. 21-1695-MN-CJB
1064	U.S. Patent No. 11,200,779 (“’779 Patent”)
1065	Decision Denying Institution of IPR2023-00268, paper 9 (Aug. 11, 2023)
1066	Reserved
1067	U.S. Patent No. 7,233,922 (“Asher”)
1068	Second Declaration of Dwight Crevelt

I. Introduction

Patent Owner (“PO”) filed a “contingent”¹ motion to amend seeking to substitute Claims 30, 31, 32 and 33 (the “Substitute Claims”) for original Claims 1, 7, 15 and 21 (the “Challenged Claims”) of the ’822 Patent. *See* Paper 15 (“MTA”). The Substitute Claims are unpatentable under 35 U.S.C. §§ 101, 103, and 112, and PO fails to meet its burden to show support for the Substitute Claims and that they are not broader than the original claims. The Board should deny the MTA.

II. The Substitute Claims Are Invalid Under 35 U.S.C. § 101

The Board should reject the Substitute Claims because they are directed to the patent-ineligible concept of hedging wager risk by offering a buy-out (or cash out) offer without reciting any inventive concept.

PO contends it is not aware of any information “material to patentability” of the Substitute Claims. MTA at 23. But PO ignores that a district court invalidated substantially similar claims of related U.S. Patent No. 8,721,439 (EX1059, “the ’439 Patent”) under 35 U.S.C. § 101. *Diogenes Ltd. et al., v. DraftKings, Inc.*, No. 21-1695 (D. Del) (R&R) (EX1060) at 9 (finding ’439 Patent claims ineligible); EX1061

¹ PO and its expert failed to address the Petition’s grounds and therefore effectively abandoned the Challenged Claims. EX1057, 36:1-5. *See China Chengda Eng’g Co., Ltd. v. Doriamo Ltd.*, IPR2023-00365 (PTAB Nov. 20, 2023) (Paper 19) (adverse judgment appropriate where PO fails to file a POR).

(adopting R&R). Specifically, the district court found that claims drawn to offering a “buy-out offer” were directed to “the abstract idea of hedging financial risk.” *Id.* at 4. The court also found that the claims “do[] not in any way improve how computers function or override the routine or conventional ways that computers can be used, so as to provide an inventive concept...” *Id.* at 8. The Substitute Claims recite similar limitations² and are ineligible for the same reasons.

The “unique” limitations (*i.e.*, those not already recited in the ineligible claims of the ’439 Patent) do not confer eligibility. The “real time and continuous” limitations (addressed *infra* §§II.C-D) claim the ancient and abstract concept of collecting and analyzing data using purely functional, result-oriented language. Claim 31 recites the abstract concept of adjusting data and. Claims 32 and 33 recite a computer readable medium analogous to similarly ineligible Claims 30 and 31.

A. Legal Standard

The M.P.E.P. sets forth a two-part test to evaluate eligibility (“Guidance”). M.P.E.P. § 2106(III); *Kiosoft Techs., LLC v. Payrange Inc.*, PGR2022-00035, Paper 7 at 23-24 (PTAB Dec. 6, 2022) (PTAB use of Guidance to evaluate § 101). The Guidance, however, “is not, itself, the law of patent eligibility,” and does not supersede Federal Circuit or Supreme Court precedent, like the *Alice/Mayo* test. *In re Rudy*, 956 F.3d 1379, 1382-83 (Fed. Cir. 2020).

² At least limitations 30[a] Claim 26 of the ’439 Patent.

B. Guidance Step 1: Statutory Category

Petitioner assumes without conceding that claims 30-33 recite statutory categories of purportedly eligible subject matter. See M.P.E.P. § 2106.03(I)-(II).

C. Guidance Step 2A / Alice Step 1

Guidance Step 2A is a two-prong inquiry that asks whether a claim is “directed to” a judicial exception. M.P.E.P. § 2106.04(II-II.A).

1. Guidance Step 2A, Prong 1

Prong 1 asks “whether the claim recites a judicial exception, *i.e.*, whether a law of nature, natural phenomenon, or abstract idea is ***set forth*** or ***described*** in the claim.” M.P.E.P. § 2106.04(II.A.1) (emphasis original). The Substitute Claims “recite” and “describe” the abstract idea of hedging financial risk in connection with a wager using a ***buy-out (or cash out) offer***, and as discussed above, there is already a judicial decision directly on point finding related claims abstract. See *supra* §II.

Claim 30 recites “[a] system...continuously evaluating...recalculated wager information to determine an amount of a system ***cash out offer***” (30[d-3]). This abstract idea of a cash out offer is repeatedly recited throughout the claim, including 30[e], 30[f], 30[g], 30[h], and 30[i]. A “cash out” or “buy-out” simply “provide[s] the player the opportunity to cash in and avoid the risk of being eliminated on a later leg[.]” EX1001, 35:23-28. As confirmed by the district court, this is nothing more than “hedging,” which the Supreme Court held was abstract in both *Alice* and *Bilski*. EX1060, 2-4 (“There’s no question that ‘hedging financial risk’ is an abstract idea

....”). Indeed, “cash outs” are rooted in ineligible methods of organizing human activity and, more particularly, “fundamental economic principles or practices (including **hedging**, insurance, **mitigating risk**)[.]” M.P.E.P. § 2106.04(a) (emphasis added). Furthermore, “cash outs” are analogous to “longstanding commercial practice[s]” of hedging used in casinos for decades (*e.g.*, “surrender” or purchasing insurance in Blackjack). *See Intellectual Ventures I LLC v. Symantec Corp.*, 838 F.3d 1307, 1313 (Fed. Cir. 2016).

Other limitations of the Substitute Claims recite ancillary conventional wagering techniques which merely facilitate the underlying abstract idea and do not shift the focus of the claims. For example, (i) continuously receiving data in real time (30[d-1]); (ii) recalculating information (30[d-2]); and (iii) continuously evaluating information (30[d-3]), recite data collection and analysis steps which merely facilitate the abstract “cash out offer” and do not shift the focus of the claims to something other than the abstract idea. *See Elec. Power Grp., LLC v. Alstom S.A.*, 830 F.3d 1350, 1353-54 (Fed. Cir. 2016) (finding claims directed to abstract idea of “collecting information, analyzing it, and displaying certain results” to be ineligible).

PO admits that “the **specific inventive feature** claimed in each of the Asserted Patents is the ability to present multiple players with a ‘buy out’ option before the completion of the final wagered-upon event.” EX1063, ¶12 (complaint asserting ’822 Patent); *see also id.*, ¶33 (describing “buy-out offer” as the “unique

differentiator” of the asserted patents that include ’822 Patent). This confirms the Substitute Claims are “directed to” the abstract idea of hedging financial risk.

2. Guidance Step 2A, Prong 2

Prong 2 considers “whether the claim as a whole integrates the recited judicial exception into a practical application of the exception.” M.P.E.P. § 2106.04(d). Claims that merely involve “using a computer as a tool to perform an abstract idea,” “[a]dding insignificant extra-solution activity to the judicial exception,” or “[g]enerally linking the use of a judicial exception to a particular technological environment or field of use” are insufficient to integrate a judicial exception into a practical application. *Id.*, § 2106.04(d)(I). The additional elements (30[b]-[d]), when considered “as a whole” with the limitations reciting the judicial exception (30[a] and [d-1]-[i] discussed above in §II.C.1), do not transform the abstract idea into a patent-eligible, “practical application.”

a. Limitations 30[b]-[d], [e]-[i] and 31

The ’822 Patent does not purport to improve the functioning of the “communications interface” (limitation 30[b]); the “processor” (limitation 30[c]); the “memory” (limitation 30[d]); or the “input devices” (limitations 30[e] and 30[f]) recited in Claim 30. Rather, the additional elements here amount to little more than an instruction to apply the abstract “buy-out” concept using conventional computers. *See Elec. Power Group*, 830 F.3d at 1354 (claims ineligible where “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.***”).

The specification confirms the recited “communications interface,” “processor,” “memory” and “input devices” are convention computing components functioning conventionally. EX1001, 6:39-47 (describing communications interface generically as “a network, including a system controller...”), 6:47-51 (“...the term ‘system controller’ should be ***broadly construed to comprise any hardware device*** or devices”), 14:37-40 (“The input devices can include ***any suitable device***”).

Similarly, identifying acceptance of an offer from the player’s input device (limitation 30[g]), processing the offer (limitation 30[h]), transmitting, over the communications interface, the offered value (limitation 30[i]), and adjusting the offered value (limitation 31) merely “describe steps of passing information back and forth by a computer” in order to implement the abstract idea of hedging financial risk of a wager. *Boom! Payments, Inc. v. Stripe, Inc.*, 839 Fed. App’x. 528, 532 (Fed. Cir. 2021) (claims directed to “abstract idea of payment escrow” found ineligible).

Limitations 30[b]-[d], [e]-[i] and 31 do not implement the abstract idea with a particular machine or manufacture that is integral to the claim. *Contra* M.P.E.P. § 2106.04(d)(I). Rather, limitations 30[b]-[d], [e]-[i] and 31 merely provide for exactly the kind of “generic computer implementation” the Supreme Court has made

clear does not render a claim eligible. *Alice Corp. Pty. Ltd. v. CLS Bank Int’l Inc.*, 573 U.S. 208, 221 (2014); *see also* M.P.E.P. § 2106.04(d)(I).

b. Limitations 30[d-1]-[d-3]

As explained in §II.C.1 above, these limitations are part of the underlying abstract idea because they merely recite ancillary data collection and analysis that facilitates an abstract buy-out. Even if they were considered distinct from the underlying abstract idea, however, they would still fail to integrate the claimed abstract idea into a “practical application,” because the real time and continuous limitations are themselves abstract.

The Substitute Claims do not describe the “data” that is “received” or the “wager information” that is “recalculated” and “evaluated.” Nor do they describe *how* data is continuously received in real time, *how* wager information is recalculated, *how* the recalculated wager information is continuously evaluated, or *how* the buy-out offer and partial buy-out offer amounts are calculated. Instead, they claim a desired *result* (e.g., receiving and processing data “continuously”) without any meaningful limiting application detail. This is a hallmark of ineligible claims. *Elec. Power*, 830 F.3d at 1356 (result-focused, functional claim language is “a frequent feature” of ineligible claims). To the extent these steps are not part of the abstract idea, they certainly do not integrate it into a practical application.

Similarly insufficient are the claims’ recitations of real time and continuous,

which is “insignificant extra-solution activity.” M.P.E.P. § 2106.05(g). *See, e.g., Elec. Power*, 830 F.3d at 1351-52 (collecting measurements and detecting and analyzing events “in real time” abstract); *NexusCard, Inc. v. Kroger Co.*, 173 F. Supp. 3d 462, 464-65 (E.D. Tex. 2016), *aff’d*, 688 F. App’x 916 (Fed. Cir. 2017) (processing discounts “in real time” abstract); *Quantum Stream Inc. v. Charter Commc’ns, Inc.*, 309 F. Supp. 3d 171, 187 (S.D.N.Y. 2018) (customized ads inserted in “real time” “inadequate to make the abstract idea” eligible).

PO seeks to apply, in this case, the PTAB’s construction of the term “continuously” from the related ’779 Patent IPR proceeding. MTA, 21-22. In that case, the PTAB panel majority “interpret[ed] ‘continuously’ performing a task to exclude performing that task at discrete time points,” such that “‘continuous[]’ data retrieval is limited to the speed at which the computer can operate.” EX1065 at 10, 15. But the fact that “continuously” receiving and processing data is **only** limited by computer operating speeds under PO’s construction even further divorces the claims from any **specific** application and renders them even more hopelessly abstract.

PO’s expert suggests that these limitations are not abstract because they are “technical in nature” in that “[s]ystem wide, potentially a large volume of information from various sources may be collected and analyzed, ‘instantly,’ for a real-time valuation.” EX2003, ¶45; EX1057, 194:22-195:16 (regarding inability of human to perform real time and continuous limitations). The Federal Circuit

recently rejected the same argument. *Trinity Info Media v. Covalent, Inc.*, 72 F.4th 1355, 1363-65 (Fed. Cir. 2023). In that case, the patent owner argued that claims that provide real-time results to users were not abstract because “humans could not mentally engage in the ‘same *claimed* process’ because they could not perform ‘nanosecond comparisons’ and aggregate ‘result values with huge numbers of polls and members.’” *Id.* The Federal Circuit rejected these arguments because they were “not tethered to *the asserted claims*” and confirmed that computer-implemented “operations that a human could not perform as quickly as a computer” do not save claims from abstraction. *Id.* at 1364. *See also* Elec. Power, 830 F.3d at 1356 (claims ineligible when they “do not include any requirement for performing the claimed functions of gathering, analyzing, and displaying ***in real time*** by use of anything but entirely conventional, generic technology.”).

As in *Trinity*, Dr. Vancura’s assertions are untethered from the Substitute Claims, which do not recite “instantly” analyzing a “large volume” of information from “various sources” or calculating “a real-time valuation.” And “merely adding computer functionality to increase the speed or efficiency of the process does not confer patent eligibility on an otherwise abstract idea.” *Intell. Ventures I LLC v. Capital One Bank (USA)*, 792 F.3d 1363, 1370 (Fed. Cir. 2015); *see also* EX1060 at 6 (rejecting argument that a “method is non-abstract because it collects and more quickly processes a ‘volume of information’ that cannot be processed [(]or processed

as quickly[] by a human”).

D. Guidance Step 2B / Alice Step 2

Step 2B of the Guidance considers whether the claim elements add enough to “transform the nature of the claim into a patent-eligible application,” such as by identifying an “inventive concept.” *Alice*, 573 U.S. at 217-218. The Substitute Claims do not recite any such transformative limitations or inventive concepts because they are “recited at a high level of generality and merely invoke[] well-understood, routine, conventional components to apply the abstract idea identified above.” *Yu v. Apple, Inc.*, 1 F.4th 1040, 1045 (Fed. Cir. 2021). The claim elements “are themselves abstract” and “there are no factual allegations from which one could plausibly infer that they are inventive.” *SAP Am., Inc. v. InvestPic, LLC*, 898 F.3d 1161, 1168-69 (Fed. Cir. 2018).

The Substitute Claims do not claim or disclose any new electronic or software technique specific to the abstract concept of “cash-out” or “buy-out” (partial or otherwise) or real-time, continuous data receiving and processing. And there is nothing inventive about receiving and transmitting data as recited in the Substitute claims. See *buySAFE Inc. v. Google, Inc.*, 765 F.3d 1350, 1355 (Fed. Cir. 2014) (“That a computer receives and sends the information over a network—with no further specification—is not even arguably inventive.”).

Moreover, limitations 30[a] and [d-1]-[i] amount to a claim on the underlying

abstract idea—*i.e.*, hedging via a “cash out”—and therefore **cannot** supply an inventive concept. *See supra* §II.C.1; *BSG Tech LLC v. Buyseasons, Inc.*, 899 F.3d 1281, 1290 (Fed. Cir. 2018) (ineligible limitations cannot supply inventive concept). But even if they were distinguishable from the claimed abstract idea, they would not recite any new improvement or technique specific to the abstract concept of “cash out” or real-time, continuous data processing. Instead, they recite conventional, well-understood wager-based gaming features that have been practiced for decades. *See supra* §II.C.2.b.

Limitations 30[e] and [f] recite generic wagering input devices in communication with a generic system controller. *See Affinity Labs of Tex., LLC v. DIRECTV, LLC*, 838 F.3d 1253, 1262 (Fed. Cir. 2016) (no inventive concept in claim that recites using “generic features” and “routine functions” to implement the underlying abstract idea). There is nothing inventive or unconventional about a system controller that “should be **broadly construed to comprise any hardware device** or devices that includes at least one central processing unit (CPU) or other processing device and associated memory.” EX1001, 6:47-51. Similarly, “[t]he input devices can include **any suitable device** which enables the player to produce an input signal which is received by the processor.” *Id.*, 14:37-40; *see also Trinity Info Media*, 72 F.4th at 1367 (“a claim is not rendered patent eligible merely because the abstract idea is applied on a handheld device or using a mobile application”).

These elements “are not even arguably inventive” and cannot supply an inventive concept. *Elec. Power*, 830 F.3d at 1355.

PO’s expert’s allegations that these aspects of the claim are somehow inventive (EX2003, ¶¶39-53) “merely reflect the improved speed inherent with applying the abstract idea using a computer,” which is insufficient to supply an inventive concept. *Trinity Info Media*, 72 F.4th at 1366 (collecting cases); *see supra* §II.C.2.b. There is also nothing inventive about the “conventional ordering of steps” recited in the Substitute Claims, which one would expect when implementing the abstract idea of hedging risk in connection with a wager. *Two-Way Media Ltd. v. Comcast Cable Commc’ns, LLC*, 874 F.3d 1329, 1339 (Fed. Cir. 2017). The Substitute claims simply recite the same steps, in the same order, that casinos and sportsbooks have implemented for decades. The only difference is that the claims recite performing these steps using a computer and performing some of them “continuously” and “in real time.”

Claim 31 also does not supply an inventive concept. There is nothing inventive about “adjusting the amount of the system cash out offer.” The ’822 Patent does not purport to have invented a new technique for adjusting the offer amount and it certainly does not claim a specific technique for doing so. *Yu*, 1 F.4th at 1045 (claim “recited at a high level of generality” fails step two).

Further, Claims 32 and 33 do not supply an inventive concept because Claims

32 and 33 merely recite a computer readable medium analogous to Claims 30 and 31, respectively, mirroring the limitations of the corresponding claim. Other than reciting different generic computer elements, Substitute Claim 30 recites “cash-out” offers while Substitute Claim 32 recites “buy-out offers” (*e.g.*, a “buy-out” and “partial buy-out” offer). These differences are immaterial for purposes of the eligibility analysis, because the ’822 Patent explains that “the terms buy-out and cash-in as used herein have the same intended meaning.” EX1001, 31:6-8.³ PO’s MTA should therefore be denied because the Substitute Claims are directed to patent-ineligible subject matter without an inventive concept.

III. PO Fails to Meet Its Burden Under 37 CFR § 42.121(d)

A. PO Improperly Adds New Matter in Substitute Claims

“A motion to amend may not present substitute claims that ... introduce new subject matter ... without support in the original disclosure.” *Lectrosonics, Inc. v. Zaxcom, Inc.*, IPR2018-01129, 130, Paper 15 at 6-7 (PTAB Feb. 25, 2019)

³ Patent Owner has not offered any construction of the term “cash-out” or suggested that it should be interpreted differently from “buy-out.” Indeed, Patent Owner’s expert, Dr. Vancura, uses the terms interchangeably (*see, e.g.*, EX2003, ¶49) and the district court recognized that “[t]he patent specification says that a buy-out or ‘cash-out’ . . . are the same thing.” EX1060 at 3.

(precedential). PO seeks entry of new limitations 30[d-1]-[d-3]. But there is no support for “real time” and “continuous” aspects of these limitations in the ’822 Patent, the ’616 Application, or the ultimate parent ’813 Application.⁴

Not only does PO fail to meet its burden, it also affirmatively relies on *new* subject matter—first disclosed in a child application (the ’779 Patent) *six months after* the ’822 Patent’s application was filed—to define the term “continuous.” PO and its expert adopt, in this case, the PTAB panel majority’s construction of the term “continuously” in the related ’779 Patent IPR proceeding. MTA, 21-22; EX2003 ¶¶58-61. Central to the majority’s construction, it found that “[t]he ’779 patent distinguishes between continuously performing a task and doing so at discrete time points.” EX1065, 14 (citing ’779 Patent 17:52-57). But the distinction the ’779 panel majority (as well as PO and its expert here) rely on is not disclosed in the ’822 Patent or its priority documents—it is only recited in the later-filed ’779 Patent.

To be clear, none of those documents disclose any support for the concepts of “continuously receiving” and “continuously evaluating” data. In fact, the term “continuous” itself is only recited three times—twice in the context of providing a

⁴ Petitioner cites to the ’822 Patent’s original application filing, U.S. Appl’n No. 17/109,616 (“the ’616 App.”, EX2002), and the analysis applies also to the ultimate parent, U.S. Appl’n No. 13/605,813 (“the ’813 App.”, EX2001).

user with the **ability to cash in** a ticket over a “continuous” period (EX2002 ¶¶102-103) and once in the context of recalculating odds as “events” occur (EX2002 ¶64). These limited disclosures fail to support the “continuous” limitations.

First, the continuous ability to **cash in**, on the one hand, and the continuous **reception and evaluation of data** as claimed, on the other hand, are entirely different concepts. Disclosure of the latter does not demonstrate possession of an invention directed to the former. PO’s only attempt to reconcile these distinct concepts is a citation to **18 paragraphs** of expert testimony spanning **35 pages** of Dr. Vancura’s declaration. MTA, 4-5 (citing “EX2003, ¶¶68-85”). But arguments incorporated by reference are properly ignored. *3M Co. v. Evergreen Adhesives, Inc.*, 860 F. App’x 724, 727-728 (Fed. Cir. 2021) (upholding PTAB determination that argument raised only through citation to expert declaration was improper).⁵

Even if considered, Dr. Vancura’s arguments fall flat. According to Dr. Vancura, continuous reception and evaluation of data as claimed would have been an obvious “design choice” in view of the ’822 Patent’s disclosure of the continuous

⁵ PO’s “string-cites” without explanation (MTA, 9-13) are also improper. *B.E. Tech., L.L.C. v. Google, Inc.*, 2016 WL 6803057, at *7 (Fed. Cir. Nov. 17, 2016) (finding patent owner had not met its burden by “only provid[ing] a string citation...without explaining how those various pages supported each of the proposed substitute limitations”).

ability to cash-in tickets. EX2003, ¶83. But “a description which renders obvious a claimed invention is **not** sufficient to satisfy the written description requirement of that invention.” *Regents of the Univ. of Cal. v. Eli Lilly & Co.*, 119 F.3d 1559, 1567 (Fed. Cir. 1997). Critically, Dr. Vancura limits his opinion to stating that the “steps of ‘receiving’ and ‘evaluating’ **lend themselves to be done continuously** with real-time data”—falling well short of even alleging that these limitations are **actually supported** by the original disclosures. EX2003, ¶83. Dr. Vancura’s improperly incorporated opinions fail to demonstrate, or even allege, compliant support.

Second, while PO identifies alleged support for the general ability of a server to “**receive**” data, such as “various odds,” the specification is entirely silent on whether such “receiving” or “evaluating” is done “**continuously**.” Instead, the ’616 Application discloses receipt and evaluation of data at **discrete** times, *e.g.*, “after each round or leg of the pool” (MTA, 7-8 (quoting EX2002, ¶78)), which is precisely the activity that the PTAB has already concluded is insufficient to disclose “continuously.” EX1065, 10, 17. The ’616 Application’s disclosure of receiving data and recalculating odds “after each round or leg of the pool,” does not demonstrate possession of an invention directed to “continuously” receiving or evaluating. Thus, the MTA should be denied as lacking specification support.

B. PO Improperly Enlarges the Scope of the Substitute Claims

“A patent owner bears the burden of persuasion to show, by a preponderance

of the evidence, that the motion [to amend]” does not “enlarge the scope of the claims of the patent.” 37 CFR §42.121(a)(2)(ii), (d)(1); 35 U.S.C. § 316(d)(3). “[A] claim is broader in scope than the original claims if it contains within its scope any conceivable apparatus or process which would not have infringed the original patent.” *Sisvel Int’l S.A. v. Sierra Wireless, Inc.*, 81 F.4th 1231, 1237 (Fed. Cir. 2023). The inquiry is not a totality of the claim scope, rather whether “a substitute claim ‘is **broader in any respect.**’” *Id.* at 1241 (citing *Hockerson-Halberstadt, Inc. v. Converse Inc.*, 183 F.3d 1369, 1374 (Fed. Cir. 1999)).

In limitation 30[e], PO replaces “**receiving**, over the communications interface, a designated amount for a value of the wager on the wagering event **from** a first input device” with “**transmitting**, over the communications interface, the amount of the system cash out offer **to** a first input device.” MTA, 10. This amendment enlarges the scope of the original claim because it entirely removes a limitation (“receiving”) from the claim. Even if it simultaneously narrows the claim by adding a new limitation (“transmitting”), this is still impermissible broadening because “if a substitute claim ‘is **broader in any respect** [it] is considered to be broader than the original claim[] even though it may be narrower in other respects.’” *Sisvel*, 81 F.4th at 1241.

Similarly, limitation 30[f] impermissibly enlarges the claim by replacing “receiving” with “soliciting.” The scope of Claim 31 impermissibly enlarged by

removing the requirement to adjust “the initial designated” value of the wager. Substitute Claims 32 and 33 are also improper because they include parallel broadening amendments. PO fails to explain how any of these amendments only narrow and therefore cannot carry its burden under 35 U.S.C § 316(d)(3) and 37 C.F.R. § 42.121(a)(2)(ii).

IV. The Substitute Claims Are Indefinite

The Substitute Claims are indefinite because a POSITA would not be reasonably certain of the scope of the real time and continuous limitations (30[d-1]-[d-3]). **First**, there is no clear line between “continuously” performing limitations 30[d-1] and [d-2] on the one hand, and discretely performing those operations on the other hand. PO thrusts this issue to the forefront by adopting, for this case, the majority panel’s construction of the term “continuously” in the related ’779 Patent IPR, which states “‘continuously’ performing a task ... exclude[s] performing that task at discrete time points.” MTA, 21 (quoting EX1065, 10). While the majority went on to find that this interpretation narrowed the claims sufficiently to distinguish the asserted prior art, the dissent correctly laid out the secondary effects of the majority’s interpretation: “the majority’s construction that the claims preclude performing a task at discrete time points seemingly presents an **impossibility**” because “[e]very action [including computer-implemented action,] occurs at a discrete point in time.” *Id.* (dissent) at 4. The metes and bounds of the claims are

unclear because PO's theoretical construct of "continuous" excludes the discrete processing inherent in all practical clock-based computer implementations.

Second, even if "continuously" is interpreted under a different construction that includes some discrete operation, the Substitute Claims are still indefinite. Although absolute precision is not required, the patent must inform a POSITA with reasonable certainty how to interpret the scope of the claims. *Nautilus, Inc. v. Biosig Instruments, Inc.*, 572 U.S. 898, 901 (2014). PO's expert demonstrates this is not possible. Dr. Vancura first testified that "'continuously' means 'ongoing at **all times**.'" EX1065, 13 (citing Dr. Vancura's testimony in '779 IPR). But during cross-examination, Dr. Vancura admitted that receiving data for just **one second** in a three-hour football game could constitute "continuously" receiving data as claimed. EX1057, 117:16 – 118:8.⁶ According to Dr. Vancura, the claims **require** only receiving and evaluating for only one second of a three hour game, but also **require** receiving and evaluating "at all times" (*i.e.*, all three hours) of that same game. Both cannot be true. Dr. Vancura's inconsistent opinions demonstrate that a POSITA cannot ascertain the scope of these limitations with "reasonable certainty."

V. Substitute Claims 30-33 Are Anticipated by Asher (EX1067)

⁶ Dr. Vancura also testified that executing an evaluation function just **two times** in a row (*i.e.*, in a "loop") would constitute "continuously" evaluating wager information as claimed. EX1058, 241:14-19.

PO contends the Substitute Claims are allowable over the Petition grounds by sole virtue of the new “‘real time and continuous’ processing steps.” MTA, 23-25. U.S. Patent No. 7,233,922 (“Asher”)⁷ discloses these limitations, and the other limitations of the Substitute Claims, and therefore anticipates the Substitute Claims.

A. Claim 30

30[a] – Asher discloses a “system” which “provides for the creation, trading, and settling of *wagering-based financial instruments 76*” and “includes clients 10 coupled to a central controller 50 using one or more interfaces 20 and a communication network 30.” EX1067, 4:47-53. “Any balance due to the client 10 may be *paid* by the house, or conversely, any balance due to the house by the client 10 may be *paid* to the house.” *Id.*, 9:37-39. “Wager-based financial instruments” depend on outcomes of one or more probabilistic events” including “one-off” and “combination” events like “sports parlay[s].” *Id.*, 4:54-5:3; EX1068, ¶17.

30[b]-[d] – Asher discloses that the “[c]entral controller 50 comprises *a processor 70*” where “[t]he processor is operable to receive order data from a client regarding a wager ... transmit data regarding the value of the position” via the “*communication network 30*.” EX1067, 4:3-9, 7:23-44, FIG. 1. The interface between central controller 50 and network 30 is a communication interface. EX1067, 4:47-49, 7:23-40, FIG. 1; EX1068, ¶18. Asher also discloses that the

⁷ Asher issued on June 19, 2007 and is prior art under at least 35 U.S.C. §102(b).

“[p]rocessor 70 executes software application 74 to perform various features and functions for creating, trading, and settling financial instruments 76.” EX1067, 7:41-50, FIG. 1.

30[d-1] – Asher discloses “***continuously*** receiving data ***in real time*** related to the wagering event” because it discloses “facilitating a wager on a position with respect to the outcomes of a plurality of events” using a “point” value to track event outcomes, wherein “the point may run ***continuously 24-hours a day for unlimited duration.***” EX1067, 3:52-60, 15:6-10. “[S]ince the point will be changing ***in real time*** ... the display of the point may be ***updated in real time.***” *Id.*, 14:25-28. Updating the display of the point in real time would require ***continuously receiving*** data in real time related to the underlying wagering event, including casino games, horse races, or sporting events disclosed by Asher. EX1068, ¶21. Specifically, Asher discloses “various types of ***monitoring interfaces 62*** that allow central controller 50 to capture information associated with the occurrence of events forming the basis for financial instruments.” *Id.*, 7:56-60. One example “monitoring interface” that Asher discloses is video surveillance. Specifically, Asher discloses that gaming machines may be “***recorded via live video*** and ***the data extrapolated from the video feed*** through a variety of manual or automated techniques.” *Id.*, 8:5-8. Asher also discloses that gaming machines “may be mated to monitoring equipment, which transmits the outcomes of each pull event to the

central controller 50 electronically.” *Id.*, 8:8-11; EX1068, ¶22.

30[d-2] – Asher discloses “recalculating, in real time and based on the continuously received data, wager information for the wager” because “the house ***monitors the events*** underlying financial instrument 76 in order to ***update***,” or recalculate, “***the house point based on the outcomes of those events***.” *Id.*, 9:3-9. That is, Asher discloses that the house monitors the wagering events *e.g.*, by recording live video, and extrapolating data from the video feed, and recalculates the point (*i.e.*, “wager information”). EX1068, ¶23.

30[d-3] – Asher discloses facilitating the transfer and sale of wager-based “financial instruments” based on a “market” price established with reference to the continuously recalculated “point” value by which “an offer price and a bid price for a particular instrument are matched, and a sale is transacted.” *Id.*, 9:14-19. Asher also discloses that “the house” (*i.e.*, operator of central controller 50) may “tak[e] a full or partial position as the ‘counter-party’ or bank to a player or players” wishing to transfer a “financial instrument.” *Id.* 10:4-7. Asher therefore discloses determining “a system cash out offer” because Asher’s central controller generates both a “house point” that values a financial instrument held by a client and an “offer” price for purchasing the financial instrument from a client. EX1067, 9:14-19, Claim 1 (“determining a price based [] upon the point count.”); EX1068, ¶25. The house’s “offer” price is a “cash out offer” because, *e.g.*, for a financial instrument based on

outcomes of multiple events like Asher's "sports parlays," acceptance of the house offer closes the client's position in the financial instrument or wager such that the client's risk of losing a subsequent leg of the parlay is eliminated. EX1068, ¶25.

"Prices" for financial instruments are determined based on continuous evaluation of recalculated wager information (*i.e.*, the "point") because Asher discloses that the "value of the financial instrument may be tied directly to the point itself and move in unison, up or down, **with the point**," which runs "continuously 24-hours a day" and is updated in "real time." EX1067, 14:33-35, 15:6-8, 17:7-12; EX1068, ¶¶26-27.

30[e] – Asher discloses communicating, over the "communication network 30," data such as "**updated values for financial instruments 76**" to the client. EX1067, 7:15-37, FIG. 1. Asher also discloses "broadcast[ing] [the updated value] to clients 10 of system 5 so that they may be apprised of the changing value of their financial instruments 76, [] **to facilitate trading of the instruments 76 between clients 10 based on their changing valuations.**" *Id.*, 9:9-13. Asher thus discloses transmitting a system cash out offer to a first input device where the house is the counterparty to a transaction and disseminates information regarding the house-set value (or house offer price) for an instrument to facilitate transactions. EX1068, ¶28.

30[f] – Asher discloses "soliciting, over the communications interface, a solicited cash out offer from a second input device" because it discloses "receiving

a bid to buy the first financial instrument.” EX1067, 20:40, 3:60-63, 9:17-19. Asher discloses “soliciting” such offers because it discloses broadcasting wager information affecting the value of financial instruments, such as the “point,” in order to “facilitate trading” (i.e., to encourage transacting). EX1068, ¶¶29-30.

30[g]-[h] – Asher discloses “identifying an acceptance of the solicited cash out offer from the first input device prior to the end of the wagering event” because it discloses “the at least one *bid* is *associated with a first client*; the at least one *offer* is *associated with a second client*; and the processor *further matches the at least one bid with the at least one offer resulting in a transfer of the at least one financial instrument from the first client to the second client.*” EX1067, 20:65-21:4; EX1068, ¶31. The “offer” corresponds to an “ask” price (*i.e.*, a price the holder of the instrument is willing to *accept*) and thus constitutes acceptance of a “bid” (*i.e.*, the solicited cash out offer) made at an acceptable price. EX1068, ¶31. The matching of bids to offers occurs prior to “settlement,” which marks the “expiration of the duration of the underlying events” (*i.e.*, the end of the wagering event). EX1067, 9:14-37. “[T]he instrument 76 may change hands any number of times during its lifetime and *prior to its eventual settlement.*” *Id.*, 9:19-28. The matching of bids to offers and transfer of the instrument entails *processing* the offer. EX1068, ¶33.

30[i] – Asher discloses transmitting a value of the solicited cash out offer because it discloses that “[a]t step 96, a sale of the financial instrument 76 from a

first client 10 to a second client 10 is facilitated, presumably based on some **price.**” EX1067, 9:14-16, FIGS. 1, 3; EX1068, ¶34. A POSITA would understand that selling an instrument for a price would entail transferring the value reflected by the price (*i.e.*, money as payment) over the server’s interface. EX1068, ¶35.

B. Claim 31

Asher discloses “adjusting” the system cash out value by “**updat[ing]** **regularly the house point** based on the outcomes of [] events” because the “value of the financial instrument,” *i.e.*, the cash out offer, “may be tied directly to the point itself and move in unison [] with the point. EX1067, 6:33-37, 7:32-37, 9:3-9; 14:33-35; EX1068, ¶36.

C. Claims 32-33

Substitute Claims 32 and 33 are substantively identical to Claims 30 and 31, respectively, except that Claims 32 and 33 replace “cash out offer” with “buy-out offer,” and recite “one or more of a solicited buy-out offer or a solicited partial buy-out offer.” The terms “buy-out” and “cash out” have the same meaning (*supra* n.3) and PO’s construction may be satisfied by “a buy-out offer” without a **partial** offer. Asher therefore discloses Claims 32-33 for the same reasons as above. EX1068, ¶37.

VI. Conclusion

The MTA should be denied.

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CERTIFICATE OF SERVICE

The undersigned hereby certifies on this 10th day of January 2024, that true and correct copies of the foregoing **PETITIONER'S OPPOSITION TO PATENT OWNER'S MOTION TO AMEND and Exhibits 1057-1068** were served in their entirety on the following parties via electronic mail:

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Date: January 10, 2024

**CERTIFICATE OF COMPLIANCE WITH TYPE-VOLUME
LIMITATION, TYPEFACE REQUIREMENTS, AND TYPE STYLE
REQUIREMENTS**

1. This Petitioner's Opposition to Patent Owner's Motion to Amend complies with the type-volume limitation of 37 C.F.R. § 42.24 because it is less than 25 pages, excluding the parts of the paper exempted by 37 C.F.R. § 42.24(a).

2. This Petitioner's Reply to Patent Owner's Response complies with the general format requirements of 37 C.F.R. § 42.6(a) and has been prepared using Microsoft® Word 2016 in 14-point Times New Roman.

Respectfully submitted,

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