

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

META PLATFORMS, INC.; INSTAGRAM, INC.; WHATSAPP LLC; META
PLATFORMS TECHNOLOGIES, LLC; AND GIPHY, INC.

Petitioners

v.

VL COLLECTIVE IP LLC

Patent Owner

U.S. Patent No. 7,436,980

Case IPR2023-00924

**PETITIONERS' MOTION TO SUBMIT SUPPLEMENTAL
INFORMATION PURSUANT TO 37 C.F.R. § 42.123(a)**

TABLE OF CONTENTS

I. INTRODUCTION 1

II. BACKGROUND 1

III. ARGUMENT 2

 A. Legal Standard.....2

 B. Petitioners’ Motion Is Timely and the Supplemental
 Information Is Relevant.....3

 C. Petitioners’ Supplemental Information Satisfies the Other
 Factors Considered by the Board 6

IV. CONCLUSION.....7

TABLE OF AUTHORITIES**Page(s)****Cases**

<i>Apple, Inc. v. VirnetX, Inc.</i> , IPR2015-00810, Paper 21 (P.T.A.B. Nov. 2, 2015).....	3, 6
<i>Baker Hughes Inc. v. Packers Plus Energy Servs., Inc.</i> , IPR2016-00597, Paper 80 (P.T.A.B. Sept. 26, 2018).....	3, 7
<i>Edmund Optics, Inc., v. Semrock, Inc.</i> , IPR2014-00599, Paper 44 (P.T.A.B. May 5, 2015)	3
<i>Hulu, LLC v. Sound View Innovations, LLC</i> , IPR2018-01039, Paper 29 (P.T.A.B. Dec. 20, 2019)	2
<i>Meta Platforms, Inc. et al. v. VL Collective IP LLC</i> , IPR 2023-00923, Paper 16 (P.T.A.B. Dec. 6, 2023)	4
<i>Palo Alto Networks, Inc v. Juniper Networks, Inc.</i> , IPR2013-00369, Paper 37 (P.T.A.B. Feb. 5, 2014).....	3, 6, 7
<i>Redline Detection, LLC v. Star Envirotech, Inc.</i> , 811 F.3d 435 (Fed. Cir. 2015)	2
<i>TechSearch LLC v. Intel Corp.</i> , 286 F.3d 1360 (Fed. Cir. 2002)	3
<i>Valeo N.A., Inc. v. Magna Elecs., Inc.</i> , IPR2014-01204, Paper 26 (P.T.A.B. Apr. 10, 2015)	3

Other Authorities

37 C.F.R. § 42.52(a).....	5
37 C.F.R. § 42.123(a).....	1, 2, 3, 4
37 C.F.R. § 42.123(b)	4

TABLE OF EXHIBITS

Exhibit No.	Description
1001	U.S. Patent No. 7,436,980 ('980 Patent)
1002	File History of U.S. Patent No. 7,436,980
1003	Provisional Application No. 60/574,799
1004	Declaration of Dr. Chandrajit Bajaj
1005	Curriculum Vitae of Dr. Chandrajit Bajaj
1006	Liang Zhao, Dressed Human Modeling, Detection, and Parts Localization, The Robotics Institute, Carnegie Mellon University (2001) ("Zhao")
1007	U.S. Patent No. 6,301,370 ("Steffens")
1008	U.S. Patent No. 7,200,266 ("Ozer")
1009	Leonid Sigal, Sidharth Bhatia, Stefan Roth, Michael J. Black & Michael Isard, <i>Tracking Loose-limbed People</i> , IEEE Computer Society Conference on Computer Vision and Pattern Recognition (2004) ("TLP")
1010	Program Documents for the 2004 IEEE Computer Society Conference on Computer Vision and Pattern Recognition (2004), http://tab.computer.org/pamitc/archive/cvpr2004/index.html
1011	Adam Baumberg & David Hogg, <i>Generating Spatiotemporal Models from Examples</i> , School of Computer Studies, University of Leeds, http://www.bmva.org/bmvc/1995/bmvc-95-040.pdf ("Baumberg")
1012	Erik B. Sudderth, Alexander T. Ihler, William T. Freeman & Alan S. Willsky, <i>Non-parametric Belief Propagation</i> , IEEE Conference on Computer Vision and Pattern Recognition, (June 2003), https://www.ics.uci.edu/~ihler/papers/tr2551.pdf)
1013	Declaration of Jessica Benner regarding "Zhao", Carnegie Mellon University (April 4, 2023)

Motion to Submit Supplemental Information

Exhibit No.	Description
1014	Declaration of Carl Megeski regarding “Zhao,” ProQuest (March 2, 2023)
1015	Leonid Sigal, Michael Isard, Benjamin H. Sigelman & Michael J. Black, <i>Attractive people: Assembling loose-limbed models using non-parametric belief propagation</i> , Advances in Neural Information Processing Systems 16, NIPS 1539–46 (MIT Press 2003)
1016	Hedvig Sidenbladh, Michael J. Black & David Fleet, <i>Stochastic tracking of 3D human figures using 2D image motion</i> , European Conference on Computer Vision, 702–18, LNCS 1843 (Springer-Verlag 2000)
1017	Noel A. C. Cressie, <i>Statistics for Spatial Data</i> , Chapters 1, 9, John Wiley and Sons (1993)
1018	Yaakov Bar-Shalom, X. Rong Li & Thiagalingam Kirubarajan, <i>Estimation with Applications to Tracking and Navigation: Theory, Algorithms and Software</i> , Chapters 1–2, 11, John Wiley and Sons, (2001)
1019	M. Isard, <i>PAMPAS: Real-valued graphical models for computer vision</i> , CVPR, vol. 1, at 613–20 (2003)
1020	D. L. Alspach & H. W. Sorenson. <i>Nonlinear Bayesian estimation using Gaussian sum approximations</i> , IEEE Trans. AC, 17(4): at 439–48, (August 1972)
1021	James M. Coughlan & Sabino J. Ferreira, <i>Finding deformable shapes using loopy belief propagation</i> , ECCV 453–68 (2002)
1022	F. De la Torre & M. J. Black., <i>Robust parameterized component analysis: Theory and applications to 2D facial modeling</i> , ECCV 653–69 (2002)
1023	S. L. Lauritzen, <i>Graphical Models</i> , Chapters 1, 3, Oxford University Press, Oxford (1996)
1024	A. Doucet, N. de Freitas, & N. Gordon, editors. <i>Sequential Monte Carlo Methods in Practice</i> , Chapters 5, 16, Springer-Verlag, New York (2001)

Motion to Submit Supplemental Information

Exhibit No.	Description
1025	Vladimir Pavlovic, James M. Rehg, Tat-Jen Cham & Kevin Murphy, <i>A dynamic Bayesian network approach to figure tracking using learned dynamic models</i> , Int'l. Conf. on Computer Vision at 94–101 (1999)
1026	Y. Wu, G. Hua & T. Yu, <i>Tracking articulated body by dynamic Markov network</i> , Int'l. Conf. on Computer Vision at 1094–101 (2003)
1027	Christopher Bregler & Jitendra Malik, <i>Tracking people with twists and exponential maps</i> , CVPR, at 8–15 (1998)
1028	J. Deutscher, A. Davison & I. Reid, <i>Automatic partitioning of high dimensional search spaces associated with articulated body motion capture</i> , IEEE Computer Society Conference on Computer Vision and Pattern Recognition, at 669–76 (2001)
1029	Cristian Sminchisescu & Bill Triggs, <i>Covariance scaled sampling for monocular 3D body tracking</i> , IEEE Computer Society Conference on Computer Vision and Pattern Recognition, vol. 1, at 447–54 (2001)
1030	John MacCormick & Michael Isard, <i>Partitioned sampling, articulated objects, and interface-quality hand tracking</i> , European Conference on Computer Vision (2), at 3–19 (2000)
1031	Yacov Hel-Or & Michael Werman, <i>Constraint Fusion for Recognition and Localization of Articulated Objects</i> , International Journal of Computer Vision 19(1), at 5–28 (1996)
1032	Y. Weiss & W. T. Freeman, <i>Correctness of belief propagation in Gaussian graphical models of arbitrary topology</i> , Neural Comp., 13:2173–2200 (2001)
1033	M. Fischler & R. Elschlager, <i>The representation and matching of pictorial structures</i> , IEEE. Trans. Computers, 22(1):67–92 (1973)

Motion to Submit Supplemental Information

Exhibit No.	Description
1034	M. Burl, M. Weber & P. Perona, <i>A probabilistic approach to object recognition using local photometry and global geometry</i> , European Conference on Computer Vision at 628–41 (1998)
1035	P. Felzenszwalb & D. Huttenlocher, <i>Efficient matching of pictorial structures</i> , IEEE Computer Society Conference on Computer Vision and Pattern Recognition, Vol. 2, at 66–73 (2000)
1036	D. Ramanan & D. Forsyth, <i>Finding and tracking people from the bottom up</i> , IEEE Computer Society Conference on Computer Vision and Pattern Recognition, Vol. II, at 467–716 (2003)
1037	Andrew Blake & Michael Isard, <i>Active Contours</i> , Chapters 7, 8, Springer-Verlag (1998)
1038	D. L. Alspach, <i>Gaussian Sum Approximations in Nonlinear Filtering and Control</i> , Information Sciences 7, 271–290 (1974)
1039	A. R. Tilley, <i>The Measure of Man and Woman: Human Factors in Design</i> H.D. Associates (1993)
1040	Paul Viola & Michael Jones, <i>Rapid Object Detection using a Boosted Cascade of Simple Features</i> , Conference on Computer Vision and Pattern Recognition (2001)
1041	Hedvig Sidenbladh & Michael J. Black, <i>Learning Statistics Learning the Statistics of People in Images and Video</i> , International Journal of Computer Vision 54 (1/2/3), at 183–209 (2003)
1042	Jonathan S. Yedidia, William T. Freeman & Yair Weiss, <i>Generalized Belief Propagation</i> , Advances in Neural Info. Proc. Sys. 13, at 689–95 (2000)
1043	<i>VideoLabs, Inc. et al v. Meta Platforms, Inc. et al</i> , Case No. 1-22-cv-00680, Dkt. 15 (D. Del. Aug. 29, 2022)
1044	Patent Assignment for U.S. Patent No. 7,436,980

Exhibit No.	Description
1045	Patent Assignment for U.S. Patent No. 7,436,980
1046	Application Data Sheet 37 C.F.R. 1.76 for U.S. Patent No. 9,189,886
1047	Patent Assignment for U.S. Patent No. 7,436,980
1048	<i>CVPR Technical Program: Call for Papers</i> , IEEE Computer Society Conference on Computer Vision and Pattern Recognition, Washington, DC, June 27 – July 2, 2004
1049	ResearchGate Web Page for TLP
1050	Declaration of Dr. Sylvia Hall-Ellis relating to TLP

Unless otherwise indicated, all emphasis added.

I. INTRODUCTION

Petitioners respectfully move to submit Exhibits 1049-1050 as supplemental information under 37 C.F.R. § 42.123(a). This supplemental information relates exclusively to the prior art status of Exhibit 1009 (reference entitled, “Tracking Loose-limbed People” or “TLP”) and is relevant to the fourth obviousness ground for which trial was instituted. *See* Paper 11. The Board routinely allows supplemental information under similar circumstances, and Petitioners respectfully request that it do so here.

II. BACKGROUND

In its Petition filed May 24, 2023 (Paper 3), Petitioners challenged the claims of U.S. Patent No. 7,436,980 (“’980 Patent”) on four grounds. Ground IV asserts obviousness based on TLP, a paper that was publicly available before May 27, 2004, the earliest claimed priority date of the ’980 Patent.

In its Preliminary Response, Patent Owner argued that Petitioners had not demonstrated the public accessibility of TLP. Paper 7. On December 6, 2023, the Board instituted trial on all challenged claims based on all asserted grounds. Paper 11 at 56-57. However, the Board determined that, based on the current record, “the Petition does not show a reasonable likelihood that TLP was published before May 27, 2004.” *Id.* at 49.

Motion to Submit Supplemental Information

While Petitioners believe the current record demonstrates TLP was publicly available before May 27, 2004, Petitioners now seek to submit supplemental information further demonstrating the prior art status of TLP. Petitioners contacted Patent Owner regarding its request on December 13, 2023, and the parties subsequently conferred via email. Patent Owner indicated that it opposes this Request. In an email dated January 4, 2024, the Board authorized Petitioners to file this motion pursuant to 37 CFR § 42.123(a); *Hulu, LLC v. Sound View Innovations, LLC*, IPR2018-01039, Paper 29 (P.T.A.B. Dec. 20, 2019) (Precedential); and *Redline Detection, LLC v. Star Envirotech, Inc.*, 811 F.3d 435 (Fed. Cir. 2015) within two weeks of said authorization.

III. ARGUMENT

A. Legal Standard

A party may seek to submit supplemental information if: (1) “[a] request for the authorization . . . is made within one month of the date the trial is instituted” and (2) “[t]he supplemental information [is] relevant to a claim for which the trial has been instituted.” 37 C.F.R. § 42.123(a); *see also Hulu*, Paper 29 at 8, 14 (P.T.A.B. Dec. 20, 2019) (Precedential). To determine whether the moving party met its burden, the Board considers whether the information would: (1) “change the grounds of unpatentability authorized in this proceeding” or “the evidence initially presented in the Petition to support those grounds of unpatentability;” (2)

Motion to Submit Supplemental Information

interfere with the “just, speedy, and inexpensive” resolution of the proceeding; or (3) otherwise prejudice the nonmoving party. *Palo Alto Networks, Inc v. Juniper Networks, Inc.*, IPR2013-00369, Paper 37 at 3-5 (P.T.A.B. Feb. 5, 2014). *Apple, Inc. v. VirnetX, Inc.*, IPR2015-00810, Paper 21 at 6-8 (P.T.A.B. Nov. 2, 2015).

Applying these factors, the Board routinely allows petitioners to submit supplemental information that addresses the public accessibility of a challenged reference. *See, e.g., Apple*, Paper 21 at 3-8 (allowing as supplemental information a declaration in support of the public availability of prior art references); *see also Palo Alto*, Paper 37 at 2-5; *Baker Hughes Inc. v. Packers Plus Energy Servs., Inc.*, IPR2016-00597, Paper 80 at 3 (P.T.A.B. Sept. 26, 2018); *Valeo N.A., Inc. v. Magna Elecs., Inc.*, IPR2014-01204, Paper 26 at 4 (P.T.A.B. Apr. 10, 2015). As the Board has recognized, “a trial is, first and foremost, a search for the truth.” *Edmund Optics, Inc., v. Semrock, Inc.*, IPR2014-00599, Paper 44 at 4 (P.T.A.B. May 5, 2015) (granting motion to submit supplemental information) (citing *TechSearch LLC v. Intel Corp.*, 286 F.3d 1360, 1378 (Fed. Cir. 2002)).

B. Petitioners’ Motion Is Timely and the Supplemental Information Is Relevant

Petitioners’ Motion to Submit Supplemental Information meets both requirements of 37 C.F.R. § 42.123(a). First, Petitioners’ motion is timely under 37 C.F.R. § 42.123(a)(1). After conferring with Patent Owner, Petitioners requested

Motion to Submit Supplemental Information

authorization from the Board to file this Motion on December 29, 2023, within one month of the December 6, 2023 institution date.

Second, Petitioners' supplemental information is "relevant to a claim [at issue in] the trial," as required by 37 C.F.R. § 42.123(a)(2). Each exhibit submitted with this Motion is relevant to the instituted obviousness grounds, *i.e.*, to the public accessibility of TLP before May 27, 2004. Specifically, Exhibit 1049 is a copy of a ResearchGate webpage for accessing TLP, which is dated "January 2004." The ResearchGate webpage may be found at the following URL: https://www.researchgate.net/publication/4082208_Tracking_loose-limbed_people. Exhibit 1050 is a declaration from Dr. Sylvia Hall-Ellis, a librarian expert (whom the Board noted "has been involved in the library sciences for over fifty years" (*see Meta Platforms, Inc. et al. v. VL Collective IP LLC*, IPR 2023-00923, Paper 16 at 18 (P.T.A.B. Dec. 6, 2023))), testifying that ResearchGate is a website for scientists and researchers to, among other things, share academic papers. EX1050, ¶¶ 28-30. As Dr. Sylvia Hall-Ellis explains for TLP, EX1049 shows that Michael Black—one of the co-authors of TLP—uploaded TLP to ResearchGate and listed a publication date as early as January 2004.¹ *See* EX1050, ¶¶ 41-48.

¹ Petitioners have made numerous attempts to contact the authors of TLP, including Michael Black, without success. Petitioners reserve all rights to seek

Motion to Submit Supplemental Information

Exhibits 1049 and 1050 further support TLP's prior art status. As explained in the Petition (Paper 3 at 6) and the Declaration of Dr. Bajaj (EX1004, ¶¶ 65-66), TLP was submitted for the 2004 IEEE Computer Society Conference on Computer Vision and Pattern Recognition and was made publicly available before May 27, 2004, the earliest claimed priority of the '980 Patent. TLP's public availability is corroborated by the fact that the '980 Patent's provisional application cites to and discusses the substance of TLP, indicating that TLP was in fact publicly available—including to the named inventors of the '980 Patent.² *Id.*; *see also* EX1003 (citing and discussing TLP, reference "[2]"). TLP's January 2004

authorization to submit additional supplemental information if obtained more than one month after the date trial was instituted pursuant to 37 C.F.R. § 42.123(b), and/or to compel discovery pursuant to 37 C.F.R. § 42.52(a) pursuant to its Motion for Authorization to Compel Testimony and Production of Documents Under 37 C.F.R. § 42.52(a) (Paper 17).

² The inventive entity of the '980 Patent is not the same as the authorship of TLP. Leonid Sigal is both a named inventor of the '980 Patent and a co-author of TLP, but the two other named inventors of the '980 Patent (Ying Zhu and Dorin Comaniciu) are not co-authors of TLP. Furthermore, the other four co-authors of TLP (Sidharth Bhatia, Stefan Roth, Michael Black, and Michael Isard) are not named inventors of the '980 Patent.

Motion to Submit Supplemental Information

publication date listed on ResearchGate is consistent with and further corroborates that TLP was publicly available before the '980 Patent's earliest claimed priority. *See also* EX1050, ¶¶ 45-48 (explaining that the January 2004 date for TLP is consistent with the 2004 CVPR schedule and there is "strong indicia of reliability" for this date because Michael Black's other ResearchGate entries in this timeframe do not merely list "January" as the month for every paper and article).

C. Petitioners' Supplemental Information Satisfies the Other Factors Considered by the Board

Petitioners' Motion further satisfies the factors considered by the Board in *Palo Alto* and other proceedings assessing supplemental information. First, the supplemental information does not change "the grounds of unpatentability authorized in this proceeding" or "the evidence initially presented in the Petition to support those grounds of unpatentability." *Palo Alto*, Paper 37 at 3; *Apple*, Paper 21 at 8. Rather, all of the information is relevant to a ground or claim already at issue, as it goes to the limited issue of the publicly accessibility of TLP—the reference asserted in the fourth instituted obviousness ground. Accordingly, there is no risk that the supplemental information would create new issues and the supplemental information is consistent with the evidence already submitted with the Petition. *See Apple*, Paper 21 at 6.

Second, the proposed supplemental information would not interfere with the "just, speedy, and inexpensive" resolution of the proceeding. *Palo Alto*, Paper 37 at

Motion to Submit Supplemental Information

4. Accepting Exhibits 1049 and 1050 at this time would permit early and efficient briefing on these issues. In particular, it would allow the parties to brief these issues fully in the principal briefs, rather than having them play out piecemeal in motions to exclude. The current deadline for Patent Owner's Response is not until February 28, 2024 (*see* Paper 12), and Patent Owner has yet to take any depositions; thus, allowing the information into the record would not disrupt the Board's schedule.

Finally, there is no prejudice to Patent Owner in allowing the supplemental information. Until Patent Owner challenged the public accessibility of TLP in its Preliminary Response, there was no apparent need for this supplemental information. *See Baker Hughes*, Paper 80 at 3 (“Having submitted evidence of public accessibility sufficient to demonstrate a reasonable likelihood of prevailing, Petitioner's response to Patent Owner's attack with additional evidence bolstering its public accessibility contention is foreseeable, reasonable, and not unduly prejudicial to Patent Owner.”). Moreover, the information all speaks to the narrow questions of public accessibility. Because Patent Owner has yet to take any deposition, it should have no difficulty reviewing and responding to the information in the period allotted for its Response. *See Palo Alto*, Paper 37 at 5.

IV. CONCLUSION

Petitioner respectfully requests permission to submit Exhibits 1049-1050.

Motion to Submit Supplemental Information

January 18, 2024

Respectfully submitted,

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CERTIFICATE OF SERVICE

The undersigned hereby certifies that a copy of the foregoing document was served on January 18, 2024, via electronic mail to counsel of record for the Patent Owner at the following:

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