

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

X CORP.

Petitioner,

v.

STERLING COMPUTERS CORPORATION

Patent Owner.

Case IPR2025-00299

U.S. Patent No. 7,716,217

PATENT OWNER'S SUR-REPLY

TABLE OF CONTENTS

I.	Dr. Khan’s Testimony Is Reliable and Accurately Applies the Law.	2
II.	Petitioner’s Claim Construction Arguments Should Be Rejected	4
A.	Petitioner Has Not Overcome the Presumption that 112 ¶ 6 Does Not Apply.	4
B.	“ <i>Recipient</i> ” Should Be Construed as a “ <i>User</i> ” That Receives “ <i>Content Sent from a Sender.</i> ”	7
C.	The “ <i>cognate</i> ” Limitation.....	10
III.	The Petition’s Kircher-Krug Combination Would Be Inoperable.	10
IV.	Patent Owner Addressed, and Rebutted, Petitioner’s Arguments Regarding the Kircher-Krug Combination.	13
V.	Petitioner’s Proposed Kircher-Krug Combination Does Not Teach, Suggest, or Render Obvious the “ <i>identify...</i> ” Limitation Required by Every Claim.....	13
VI.	Krug Is Not Analogous Art.	17
VII.	Dumais Is Not Prior Art.	18
A.	No Improper Incorporation by Reference	18
B.	Conception Evidence Is Corroborated.	20
C.	There Is No Basis to Exclude Exhibit 2014.	21
D.	The Evidence Shows Conception by the Named Inventors.	21
E.	The Documents Show Conception of the “ <i>identify...</i> ” Limitation.	22
F.	The Evidence Shows Conception.....	23
G.	The Evidence Shows Diligence.....	23
VIII.	Dumais Does Not Disclose the “ <i>identify...</i> ” Limitation.....	25
IX.	There Is No Basis for Ignoring Patent Owner’s Evidence of Secondary Considerations.	26

TABLE OF AUTHORITIES

<u>Case</u>	<u>Page(s)</u>
<i>Analog Devices, Inc. v. Xilinx, Inc.</i> , No. IPR2020-01597, 2021 WL 1321768 (P.T.A.B. Apr. 8, 2021).....	5-6
<i>Applied Med. Res. Corp. v. U.S. Surgical Corp.</i> , 448 F.3d 1324 (Fed. Cir. 2006).....	7
<i>Dyfan, LLC v. Target Corp.</i> , 28 F.4th 1360 (Fed. Cir. 2022).....	6, 7
<i>Finisar Corp. v. DirecTV Group, Inc.</i> , 523 F.3d 1323 (Fed. Cir. 2008).....	7
<i>Finjan, Inc., v. Proofpoint, Inc.</i> , No. 13-CV-05808-HSG, 2015 WL 7770208 (N.D. Cal. Dec. 3, 2015).....	5
<i>Gray Mfg. Co., Inc. v. Sefac S.A.</i> , No. CV 19-899, 2021 WL 978891 (E.D. Pa. Mar. 16, 2021).....	5
<i>Grecia v. Samsung Elecs. Am., Inc.</i> , 780 F. App'x 912 (Fed. Cir. 2019).....	6
<i>In re Gordon</i> , 733 F.2d 900 (Fed. Cir. 1984).....	16
<i>In re Katz Interactive Call Processing Pat. Litig.</i> , 639 F.3d 1303 (Fed. Cir. 2011).....	7
<i>Intelligent Bio-Systems, Inc. v. Illumina Cambridge Ltd.</i> , 821 F.3d 1359 (Fed. Cir. 2016).....	12
<i>KSR Int'l Co. v. Teleflex Inc.</i> , 550 U.S. 398 (2007).....	2
<i>Natera, Inc. v. NeoGenomics Lab'ys, Inc.</i> , 106 F.4th 1369 (Fed. Cir. 2024).....	3
<i>Perfect Surgical Techniques, Inc. v. Olympus America, Inc.</i> , 841 F.3d 1004 (Fed. Cir. 2016).....	25
<i>Phillips v. AWH Corp.</i> , 415 F.3d 1303 (Fed. Cir. 2005).....	7-8

Case (cont.)

Page(s)

Williamson v. Citrix Online, LLC, 792 F.3d 1339 (Fed. Cir. 2015).....4-5

Statutes, etc.

Page(s)

35 U.S.C. § 112 ¶6.....4-5

37 C.F.R. §42.23(b).....12

EXHIBIT LIST

Patent Owner's Exhibit No.	Exhibit Description
2001	Declaration of Latifur Khan (March 12, 2025)
2002	Curriculum vitae of Latifur Khan
2003	Declaration of Justin Marston (March 12, 2025)
2004	"BlueSpace Mail Search" Document, Sept. 2, 2004
2005	"The Development of the Mathematical Algorithms," May 12, 2005
2006	"BlueSpace Mail Relevance," June 7, 2005
2007	"BlueSpace Mail Relevance," Aug. 16, 2005
2008	"BlueSpace Mail Relevance," Aug. 17, 2005
2009	"Importance," Sept. 18, 2005
2010	"BlueSpace Mail Relevance," Oct. 6, 2005
2011	"BlueSpace Mail Relevance," Oct. 7, 2005
2012	"BlueSpace Mail Relevance," Oct. 7, 2005
2013	"There are many cognate relevance values that must be calculated," Nov. 9, 2004
2014	Claim Chart for BlueSpace Mail Documents
2015	Supplemental Declaration of Justin Marston (July 8, 2025)
2016	<i>listing of NATURE article:</i> Marston, Justin, "Chaos in the Classroom," Jan. 25, 1996, NATURE, <i>available at</i> https://www.nature.com/articles/379306b0

Patent Owner's Exhibit No.	Exhibit Description
2017	<i>excerpt from:</i> 32nd European Union Contest for Young Scientists (2020-2021) ("Winners 1989-2019")
2018	LinkedIn profile: Justin Marston
2019	Metadata extracted from native of EX2004
2020	Metadata extracted from native of EX2005
2021	Metadata extracted from native of EX2006
2022	Metadata extracted from native of EX2007
2023	Metadata extracted from native of EX2008
2024	Metadata extracted from native of EX2009
2025	Metadata extracted from native of EX2010
2026	Metadata extracted from native of EX2011
2027	Metadata extracted from native of EX2012
2028	Metadata extracted from native of EX2013
2029	Declaration of Latifur Khan (September 10, 2025)
2030	Declaration of Justin Marston (September 9, 2025)
2031	Declaration of Paul Marston (September 9, 2025)
2032	"BlueSpace Mail Relevance," September 21, 2005
2033	"BlueSpace Mail Relevance," October 2, 2005
2034	"BlueSpace Mail Relevance," November 8, 2005
2035	"BlueSpace Mail Relevance," November 12, 2005
2036	"BlueSpace Mail Relevance," November 13, 2005

Patent Owner's Exhibit No.	Exhibit Description
2037	"Frequency analysis stats," August 21, 2005
2038	"Relevance typology 2.bmp," November 13, 2005
2039	"Relevance process flow 2.bmp," November 13, 2005
2040	<i>intentionally omitted (duplicate)</i>
2041	Log of BlueSpace documents showing BlueSpace work from June 28, 2005, until January 13, 2006
2042	Log of J. Marston privileged communications with BlueSpace counsel regarding BlueSpace work from June 28, 2005, until January 13, 2006
2043	Version of EX2010/EX1044 showing tracked changes and comments by Justin Marston
2044	Version of EX2010/EX1044 showing tracked changes and comments by Paul Marston
2045	Version of EX2010/EX1044 showing tracked changes and comments by Jon Fernyhough
2046	Redacted (for privilege) correspondence from J. Marston to B. Hoffman, January 12, 2006
2047	"Transmail Relevance Formulae," September 9, 2004
2048	"Notes on Search Document," September 13, 2004
2049	"Pauls Formula Section Sept 17.doc," September 20, 2004
2050	"General Comments," May 17, 2005
2051	"Some Thoughts on the TransMail Relevance/Importance Algorithm," May 17, 2005

Patent Owner's Exhibit No.	Exhibit Description
2052	"2004-09-10 notes on search document.doc," September 10, 2004
2053	"Changes to document_.doc," September 15, 2004
2054	"BlueSpaceMailSearchfor JamesB.doc," September 15, 2004
2055	"Importance 1.1.1.doc," September 18, 2004
2056	"formula.doc," August 17, 2005
2057	"SoftwareImplementation.doc," August 18, 2005
2058	"SoftwareImplementationComment.doc," August 19, 2005
2059	"BlueSpaceRelevancePM250805.doc," August 25, 2005
2060	"BlueSpaceMailRelevancePM250905.doc," September 25, 2005
2061	"BlueSpaceMailRelevancePM270905c.doc," September 28, 2005
2062	"BlueSpaceMailRelevancePM280905.doc," September 28, 2005
2063	"Comments to Jon and Justin 07.doc," October 8, 2005
2064	"Alterations to document.doc," October 8, 2005
2065	"BSMR021005_jfpm2.doc," October 13, 2005
2066	"BSMR021005_jfpm3.doc," October 13, 2005
2067	"BSMR021005_jfpm4.doc," October 13, 2005
2068	"BSMR021005_jfpm5.doc," October 13, 2005

Patent Owner's Exhibit No.	Exhibit Description
2069	"BSMR021005_jfpm6.doc," October 14, 2005
2070	"Jon & Juistin 14.10.05.doc," October 14, 2005
2071	"Comments to Justin and Jon Oct 15th.doc," October 15, 2005
2072	"BlueSpaceMailRelevanceJM06,11,05.doc," November 10, 2005
2073	"BlueSpace Mail Relevance," August 21, 2005
2074	"BlueSpace Mail Relevance," November 12, 2005
2075	Paul Marston LinkedIn Profile
2076	Paul Marston employment history (1968-2024) (from teachers' pensions employment history)
2077	Article: "Farewell after almost 50 years: Paul Marston, Senior Lecturer in Mathematics."
2078	Letter appointing P. Marston as lecturer at Nazarene Theological College, July 25, 2005
2079	"Twitter's Recommendation Algorithm," X Blog, March 31, 2023
2080	"Twitter Revenue and Usage Statistics (2025)," Business of Apps, Sept. 2, 2025
2081	"Twitter Is Changing Your Timeline: What You Need to Know," ABC News, Feb. 10, 2016
2082	"News Feeds, Old Content: A Brief History of Algorithmically Curated Feeds on Facebook and Twitter," Medium, April 29, 2019

Patent Owner's Exhibit No.	Exhibit Description
2083	"You Can Finally Switch Your Instagram Feed to a Chronological Timeline. Here's How," Business Insider, Mar. 24, 2022
2084	Complaint, <i>Sterling v. X Corp.</i> , Case No. 1:24-cv-00552 (W.D. Texas)
2085	Complaint, <i>Sterling v. Meta</i> , Case No. 1:24-cv-00551 (W.D. Texas)

The '217 Patent determines the relevance of sent content using a novel, multi-user approach. To determine the relevance of a piece of sent content, the system tracks the actions of both the user for which the relevance score is being determined (the "first" user) and also other "*recipient[s]*" (a "second" user). The '217 Patent recognizes that the actions of some "*recipient[s]*" – i.e., those that are "*cognate to,*" or similar to, the first user – will be more valuable to the first user, and, therefore, requires "*identify[ing]*" a second user that is both "*a recipient*" of the content being scored and also "*cognate to the [first] user.*"

This unique approach to determining the relevance of sent content is not found in the prior art. Two of the references, Dumais and Krug, are not focused on inter-person communications, but instead describe systems for retrieving results in response to a search query (e.g., on the Internet). Neither reference "*identiffies*" another user(s) that received the same piece of sent content as a first user ("*a recipient*"), let alone another "*recipient*" that is also "*cognate to the [first] user.*" Moreover, they do not teach the desirability of (or the math required to implement) those features and, therefore, it would not have been obvious to add them. The third reference, Kircher, does not rank messages using either (1) the first user's actions or (2) the actions of any other recipient of the same message. If Krug's algorithm were added to Kircher as a "plug-in," as Petitioner contends, the combination (1) would not render obvious the "*identify...*" limitation and (2) would be inoperable.

For all of these reasons, the prior art references do not render obvious any claim. Nothing in Petitioner's Reply, addressed below, changes that fact.

I. Dr. Khan's Testimony Is Reliable and Accurately Applies the Law.

Petitioner asserts that Dr. Khan applied the wrong POSA standard because he testified that a POSA "may not necessarily be creative." Reply,1 (citing EX1058,18:11-13). Dr. Khan was speaking about his real-life experience with a variety of people who actually had the defined level of education and experience. Tr. 18:2-9 (based upon his "over 25 years in academia," not everyone with the same level of skill "will be able to do the same thing"). He applied the correct POSA standard ("**ordinary**" skill) in his analysis. EX2029,¶19.

Petitioner also complains about Dr. Khan's answer to the case-law-focused question of whether "a [POSA] can fit the multiple teachings of references together like pieces of a puzzle." Reply,1; EX1058,18:14-19:14. The actual quote from *KSR* is that "**often**,"¹ or "**in many cases** a [POSA] will be able to fit the teachings of multiple patents together like pieces of a puzzle." *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 402 & 420 (2007). Because the question suggested that a POSA can **always** do this, Dr. Khan was correct to disagree. He applied the correct POSA standard ("**ordinary**" skill) in his analysis. EX2029,¶19.

¹ Unless otherwise noted, bolded/underlined emphasis has been added.

Unfairly characterizing his testimony, Petitioner argues that Dr. Khan improperly imposed a “quality” limitation in the claims. Reply,2. Not true. Even after a barrage of unfair questions attempting to get him to impose a “quality” requirement in the claims, he consistently testified that the claim language did **not** require “quality.” EX1050,173:10-175:2-24;*id.*,45:6-9. Instead, he explained that the claimed algorithms would **produce** a high-quality **result**. *Id.* Consistent with this testimony, nowhere in his analysis of the claims does he impose a “quality” requirement. *See generally* EX2029. Moreover, he explained that, in the ‘217 Patent, a “quality” result would be that the content most relevant to the user will receive a high “ranking” or “*relevance score*” (EX1058,44:18-23&59:17-24), and “*relevance score*” **is** in the claims. Furthermore, “[u]nclaimed factors relevant to the feasibility of creating a useful claimed invention can impact the motivation to combine analysis if a skilled artisan would reasonably consider them.” *Natera, Inc. v. NeoGenomics Lab'ys, Inc.*, 106 F.4th 1369, 1378 (Fed. Cir. 2024). Here, a POSA would consider whether the combination would result in content that is actually relevant to the first user receiving a high “relevance score” (i.e., a “quality” result). Thus, it is proper to consider whether a combination would achieve an accurate “*relevance score*” (i.e., a “quality” result).

Petitioner argues that Dr. Khan refused to acknowledge that “data items’ in Dumais can include emails. Reply,1-2. Not true. EX2029,¶98 (“data items ... include ... ‘email’”).

Citing nearly forty paragraphs with zero analysis, Petitioner argues that “Dr. Khan provides no support for his assertions.” Reply,2. But the cited paragraphs contain citations and quotations. EX2029,¶¶28-31,33,35,38-49 (claim construction section, quoting EX1001,Claims)); *id.* ¶¶207-228 (Kircher/Krug section, citing EX1008&EX1007). They also refer back to earlier analysis citing further evidence. *Id.*; EX2029,¶¶118-121 (citing EX1008, [0107, 0115, 0116, 0119, 0121, 0122]); *id.*¶¶105-108 (citing EX1007, [Abstract], [0014-0018], [0053], [0046], [0092]).

II. Petitioner's Claim Construction Arguments Should Be Rejected

A. Petitioner Has Not Overcome the Presumption that 112 ¶ 6 Does Not Apply.

The “*module*” limitations are entitled to the presumption that they do not invoke § 112 ¶6. Petitioner, however, does not acknowledge this presumption, let alone attempt to overcome it by demonstrating that the “*modules*” fail to recite sufficient structure. *Williamson*, 792 F.3d at 1349; *see generally* Reply,3-5. Instead, Petitioner jumps to the second step of *Williamson*'s analysis for means-plus-function limitations. That step, however, applies only **after** it is determined that § 112, ¶ 6 applies. *Id.* at 1351. Petitioner's approach “puts the cart before the horse.” *Gray Mfg.*

Co., Inc. v. Sefac S.A., No. CV 19-899, 2021 WL 978891, at *3 n. 4 (E.D. Pa. Mar. 16, 2021).

Petitioner argues the Board “ignores the specification’s broad definition of ‘modules’ as any generic structure.” Reply,4. It is Petitioner, however, that is ignoring the Patent’s language about “*modules*.” The claim language shows that “the computer program module limitations connote structure in the form of software instructions or code.” Decision, at 11 (quoting EX1001, Claims (“**computer program modules**” and “**computer program instructions**”)); accord EX1001,6:65-7:2. The claims also describe how each “*module*” interacts with other parts to inform structural components. EX1001, Claims (“*modules*” are stored in “*a computer-readable storage medium*” and “*executed by a processor*”; relevance measurement “*modules*” are “*coupled to the monitoring module*”). See *Finjan, Inc., v. Proofpoint, Inc.*, No. 13-CV-05808-HSG, 2015 WL 7770208, at *11 (N.D. Cal. Dec. 3, 2015) (“[T]he intrinsic evidence establishes the structural character of ‘content processor’ through its interaction with the system’s other components.”); *Analog Devices, Inc. v. Xilinx, Inc.*, No. IPR2020-01597, 2021 WL 1321768, at *6–7 (P.T.A.B. Apr. 8, 2021) (claim term “module” not “means-plus-function” when referring to a specific structure using physical descriptions). Here, each “*module*” provides a POSA with a sufficiently definite structure to understand the claim terms.

Petitioner argues Dr. Khan's testimony about programming is inconsistent with his declaration about "off-the-shelf systems." Reply,3-4. There is no contradiction: Dr. Khan wrote that "existing or off the shelf systems" could provide monitoring (*accord* EX1001,16:31-39), but also that the "*module*" functions would need to be "implement[ed]." EX2001,¶¶30,48,31. The Board acknowledged this testimony. Decision,12 (citing testimony that "the functions recited explain how to **engineer, build, or implement** the modules using known and available techniques." (citing EX2001,¶¶25-35)).

Petitioner argues that *Dyfan* is distinguishable because, in that case, both parties' experts agreed that the limitations connote a class of structures. Reply,4. That is a distinction without difference. As was the case in *Dyfan*, the patent itself shows that the limitations connote structures, describing "*modules*" in the **very language** held dispositive in *Dyfan*—"software instructions." *Dyfan*, 28 F.4th at 1367-68; *see also* EX1001,7:7-12; EX2029,¶¶27-28.

Petitioner cites *Grecia* as alleged support for its position. 780 F. App'x 912, 916 (Fed. Cir. 2019). In that case, however, "nothing in [the] claim[] explain[ed] how the ... module operates." *Id.* 913-915. In contrast, here, the claims explain that "*modules*" are computer program instructions and explain how each "*module*" operates. EX2029,¶¶25-35 (citing EX1001,Claims).

Petitioner also continues to rely upon *Finisar* and *Katz*, but, in those cases, the claims were written in means-plus-function form. This difference is critical: the legal analysis is different for claims that are written in means-plus-function form (as in *Finisar* and *Katz*) and those that are not (the claims at issue here). *Compare Applied Med. Res. Corp. v. U.S. Surgical Corp.*, 448 F.3d 1324, 1332 (Fed. Cir. 2006) with *Dyfan*, 28 F.4th at 1365. To reach the analysis Petitioner is engaged in, the presumption must first be overcome. *Supra*, 4-5. Petitioner has not done so.

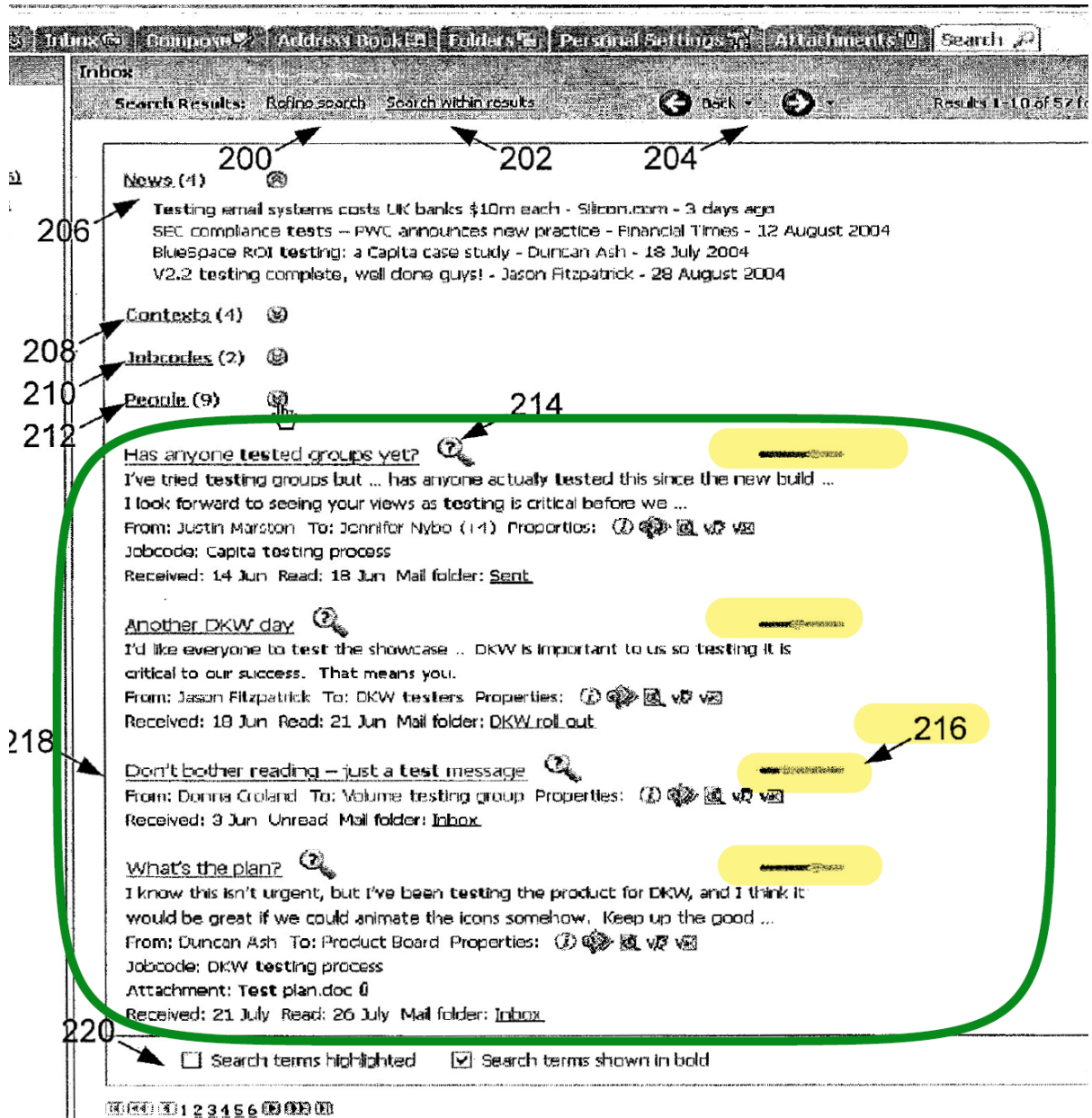
B. “Recipient” Should Be Construed as a “User” That Receives “Content Sent from a Sender.”

The correct construction of “recipient” is a “user” that receives “content sent from a sender.” This construction is supported by the surrounding words of the claim, because the earlier claim language states that the content being received is “content sent from a sender.” Petitioner asserts that Patent Owner’s construction of “a recipient” “imports” a “sender” limitation from “other claims.” Reply, 6-7. Not true. “Importing” limitations into the claims refers to importing “elements not mentioned in the claim.” *Phillips*, 415 F.3d at 1312. Here, the “sender” limitation (“a piece of electronic content sent from a sender”) appears in the same claim in which the disputed “recipient” limitation appears. This “sender” language, therefore, must be considered: “the context of the surrounding words of the claim also must be considered in determining the ordinary and customary meaning of those terms.” *Id.* at 1314; *id.* at 1312 (terms must be read “in the context of the particular claim in

which the disputed term appears)"). Patent Owner's construction properly considers the surrounding claim language.

Petitioner insists that, because the '217 Patent states that content can be stored in "document management systems," "*a recipient*" can be someone who merely accesses content, including non-sent content. But the passage that Petitioner cites belies this, as it discusses management of "mail content." Reply,6-8. Moreover, document management systems can store "*sent*" content that has "*a sender*" and "*a recipient*." E.g., EX1001, Fig.20. Regardless of where content is stored, the claims make it clear that the content "*a recipient*" receives is content "*sent from a sender*."

Petitioner asserts that the "search" embodiment of the '217 Patent "ranks content that is 'not electronic mail objects.'" Reply,7 (citing Fig.20). Not true. The search embodiment of Figure 20 displays search results that include both emails and non-email items. *Id.*24:4-53. However, only emails were scored for relevance according to the invention (*id.* 24:28 & 24:32-33):



EX1001, Fig. 20. As seen above, only emails (items in the green box²) have relevance sliders (216) “based on the output of the relevance algorithm.” *Id.*; *id.* 24:57-59. This is stated expressly. *Id.* 24:26-39. Non-email items (above the green box) were **not** scored for relevancy. *Id.* Fig. 20 (no relevance sliders for non-email items).

² *Id.* 24:26-39 (“electronic mail content” hits appear below 206, 208, 210, 212).

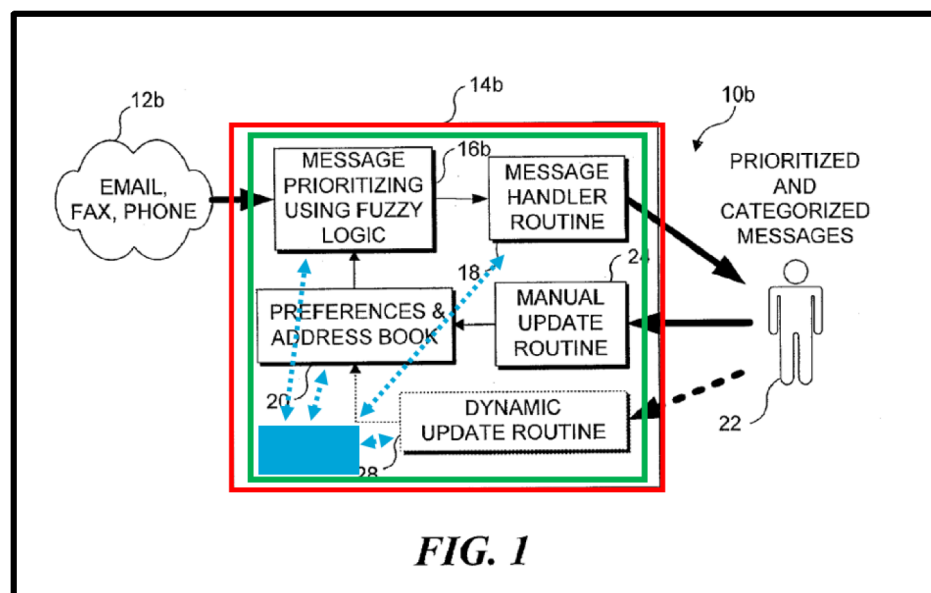
C. The “cognate” Limitation.

Petitioner asserts Patent Owner construed “cognate” to exclude groups of users. That is not true. *See, e.g.*, EX2029, ¶¶72-75,80-85; Resp.8,10-14.

Petitioner asserts Patent Owner contends the claims “require[] ‘identify[ing]’” a “cognate” user based on “past actions” (as opposed to direct input). Reply,8-9 (citing POR,19). That is not true. *See, e.g.*, EX2029, ¶80; Resp.20-21.

III. The Petition’s Kircher-Krug Combination Would Be Inoperable.

Even if Krug were analogous art, which it is not (*infra*,17-18), a skilled artisan would not combine Kircher and Krug as Petitioner argues because doing so would render the combination inoperable. EX2029,¶¶214-223.The combination advanced in the Petition proposes an allegedly “simple substitution” by physically adding Krug’s “plug-in” (blue box) to Kircher (Fig.1):



Pet.,52; EX1004,¶¶427-433.

In Response, Patent Owner's expert explained that Krug's Internet-based algorithm would fail in Kircher's email system, rendering the combination inoperable. EX2029,¶¶214-223. This is because Krug's formula is determined based on Internet search engine results – i.e., where the object appeared in the results from various Internet search engines.³ EX1008,[0115]. But sent content (e.g., emails) are not “objects on the Internet,” and, therefore, will not appear in the results of **any** Internet search engine. *Id.* As a result, if Krug's algorithm were plugged into Kircher, it would fail. *Id.* Placing the Kircher-Krug combination on a browser-based email system (as Petitioner now contends for the first time on reply – *see infra*, 11-12) does not help, because the sent content (e.g., emails) still would not show up in results from Internet search engines (because the sent content is not an “object on the Internet”). Thus, Krug's algorithm would still fail to calculate a score.

Now, for the first time in its Reply, Petitioner advances a **new** combination. **First**, instead of “simpl[y]” adding Krug's “plug-in” to Kircher, Petitioner now seems to admit that Krug's “functions” would need to be modified.⁴ Reply, 13 (arguing that a POSA would have used “creativity and skill **to combine** the weighted

³ Krug states that its “plug-in” is for “a commercially available Internet browser.” EX1008,[0099]. Nevertheless, Petitioner argues that (1) “Krug's ‘plug-in’ is not limited to integrations with ‘internet browsers’” and (2) Krug wanted “to ensure his invention could be integrated into” email systems. Reply, 11. Krug's statement that its “plug-in” is for “Internet browser[s]” contradicts this, and the cited paragraphs (EX1004,¶¶427-433) provide no evidence to the contrary.

⁴ Petitioner does not appear to dispute, for example, the testimony (EX2029,¶¶217-219) that portions of Krug's formula would need to be discarded. *See generally* Reply.

rules (Kircher) and individual criteria (Krug)"); *id.*,14 (“‘score functions’ could have been combined”). But that is not what the Petition argued. *See* Pet.,50-56 (keeping Krug’s “program,” “numerical rankings,” “known functions,” and “relevance measurement”). **Second**, Petitioner now argues that Krug’s “plug-in” would **not** be “substituted physically into the structure of [Kircher].” Reply,12-13. But that is not what the Petition asserted. Pet.,52 (proposing physically placing Krug’s “plug-in” (**blue**) into Kircher (Fig. 1)). **Third**, Petitioner now argues that Krug’s “plug-in” could be inserted “into either a browser accessing webmail or the embedded browser of an email client.” Reply,11-12. But the Petition did not propose that. Pet.,50-56. Petitioner may not introduce a new obviousness combination for the first time on Reply. 37 C.F.R. §42.23(b) (“A reply may only respond to arguments raised in the corresponding opposition, patent owner preliminary response, or patent owner response.”); *Intelligent Bio-Systems, Inc. v. Illumina Cambridge Ltd.*, 821 F.3d 1359, 1369 (Fed. Cir. 2016) (“It is of the utmost importance that petitioners in the IPR proceedings adhere to the requirement that the initial petition identify ‘with particularity’ the ‘evidence that supports the ground for the challenge to each claim.’” (quoting 35 U.S.C. § 312(a)(3))).

Finally, even with its new arguments, Petitioner still fails to meet its burden to show “how” a POSA would have combined the references. Petitioner asserts that Kircher’s and Krug’s “‘score functions’ could have been combined” (Reply,14), but

Petitioner never articulates which portions of each reference's "functions" would be kept (or discarded). Moreover, the "evidence" Petitioner relies upon to argue that the two references could be combined (*see* Reply,14) is either (1) new evidence raised for the first time on reply (Reply,§IV.B)) or (2) evidence that does not address either Kircher or Krug. EX1030 (not addressing Kircher, Krug, their specific score functions, or how a skilled artisan would combine them); EX1004,¶¶93-97 (same).

IV. Patent Owner Addressed, and Rebutted, Petitioner's Arguments Regarding the Kircher-Krug Combination.

Petitioner asserts that Patent Owner only "attacks Krug and Kircher in isolation." Reply,1&14. Not true. *E.g.*, EX2029,¶¶214-223 (inoperability analysis, addressing Kircher-Krug combination).

Patent Owner also addressed Petitioner's argument about "how" to combine the references. EX2029,¶¶214-223 (if combined as ("how") Petitioner asserts, the combination would be inoperable).

Patent Owner also refuted Petitioner's arguments about "why" a POSA allegedly would combine Kircher with Krug. *Id.*¶¶209-211 & Resp., 38-39 (Petitioner's explanations – e.g., that Krug is analogous – were incorrect).

V. Petitioner's Proposed Kircher-Krug Combination Does Not Teach, Suggest, or Render Obvious the "identify..." Limitation Required by Every Claim.

Every independent claim requires "*identify[ing] at least one other of the plurality of users that is a recipient of the piece of electronic content and that is*

cognate to the [first] user.” Petitioner asserts that, because Krug groups together users that accessed the same object, “[e]very member of that group is ... ‘*cognate to the user.*’” Reply,15-16. Here, Petitioner ignores the language “*cognate to the user.*” In this part of the claim, “*the user*” is the first user for which a relevance score is being determined. EX1001,Claims. A group of users that accessed a particular object would be “*cognate to the [first] user*” only if the first user is also a part of the group, but Krug does not teach “*identify[ing]*” other user(s) that are “*cognate to the [first] user*” or grouping together users that are similar to “the [first] user.”

The “*identify...*” limitation also requires that the other “*user*” be “*a recipient of the piece of electronic content*” – i.e., received “*the content* being scored.” Petitioner asserts this limitation is satisfied because “[e]ach member of the Access Group is also ‘a recipient of the piece of electronic content.’” Here, Petitioner ignores that it is not just any object that the “*recipient*” needs to have received. While the group of all users that accessed the same object would be a group of users that have accessed some/one similar object, there is no disclosure in Krug to group together, or “*identify,*” all of the users that accessed *the piece of content being scored.* In sum, Krug does not teach grouping the first user together with other similar users, let alone also teaching that the object the group accessed also must be the object being scored. Therefore, users in this group that Petitioner points to (i.e.,

users who accessed some object) are not both “a recipient of the piece of electronic content [being scored]” and also “cognate to the [first] user.”

Petitioner next argues that the “*identify...*” limitation is met because Krug states that “[a] single user can be assigned to any number of groups.” Reply,16. But Krug does not disclose (or teach the desirability of) “*identify[ing]*” a user (or group of users) that is a part of both groups required by the ‘217 Patent claims. Acknowledging that Krug does not expressly teach “*identify[ing]*” such a user, Petitioner argues that it would have been obvious to add this feature (i.e., to identify two users that are part of multiple overlapping groups) because “two users who interact with the same item offer the greatest indicator of relevance for that data item.” Reply,16 (citing EX1004, ¶245). But that argument addresses only creating an “Access Group”; it does not address why a skilled artisan would be motivated to “*identify*” a “*user*” that is part of both (1) a group of people that accessed the document being scored and also (2) a group of people that share a similarity with the first user (i.e., the user for which a score is being determined). Petitioner has presented no evidence as to why a POSA would be motivated to “*identify*” that particular other “*user(s).*”

Petitioner asserts that Patent Owner's position is that “the system must identify a singular user and cannot identify a ‘cognate group.’” Reply,17 (citing

Resp.33-34). That is incorrect. *See* Resp.33 (user being “*identified*”) could be “another user (**or users**)”).

Petitioner argues that it is irrelevant whether Krug teaches the “desirability” of “*identify[ing]*” this particular “user.” Reply,17. To the contrary, however, because Krug does not expressly teach “*identify[ing]*” such a user, the “*identify[ing]*” limitation is obvious only if Petitioner can show that a POSA would have been motivated to **add** that feature. In this analysis, whether a reference teaches the “desirability” of a feature **is** relevant. *See In re Gordon*, 733 F.2d 900, 902 (Fed. Cir. 1984) (“The mere fact that the prior art could be so modified would not have made the modification obvious unless the prior art suggested the **desirability** of the modification.”). Here, Krug (1) does not expressly teach “*identify[ing]*” a user that is both “*cognate to the [first] user*” and “*a recipient of the piece of content*” being scored and also (2) does not teach that doing so would be desirable (such that it would be obvious to add this feature).

In response to Patent Owner’s statement that Krug does not teach the math required to “*identify*” the requisite “*cognate*”/“*recipient*” “user,” Petitioner argues that Krug does disclose the math used to identify its user groups. Reply,17. The point, however, is that Krug does not disclose the math needed to “*identify*” a “user” (or group of users) that is part of **both** groups specifically required by the claims of the ‘217 Patent.

Petitioner disputes (Reply,17) Patent Owner's statement that Petitioner's expert did not address the requirement to "*identify*" "*a recipient*" (Resp.30-31). In support, however, Petitioner quotes a passage (EX1004,¶506) that does not discuss "*identify[ing]*" "*a recipient*" at all. Similarly, none of the other paragraphs that Petitioner cites show that Krug "*identif[ies]*" "*a recipient.*" See EX1004,¶¶501-502 & 506-509 (analyzing "*cognate*" limitation), ¶¶500 & 511 (introduction & conclusion sentences containing no evidence or analysis). Thus, Petitioner has **no evidence** to support its position that it would have been obvious to "*identify*" "*a recipient*" of the piece of content being scored.

VI. Krug Is Not Analogous Art.

One reason a POSA would not have been motivated to combine Kircher and Krug is because Krug is not analogous art to the '217 Patent.

Although Petitioner asserts that the relevant field is "managing documents/electronic content" (Reply,9), the actual field is determining relevance of "*sent*" content. In contrast, Krug addresses search results on the Internet (non-sent content); Krug does not address inter-personal communications systems. EX1008. As a result, Krug does not address many concepts that are key to how the '217 Patent solved the problems, such as considering the people involved in the communication (e.g., EX1001,29:50-53) – e.g., "*sender[s]*" (e.g., sender importance) (*id.* 25:28-31&50-54), "*recipient[s]*" (e.g., did other recipients of this message respond or

forward?) (*id.* 6:1-23) – and “*job code[s]*” (relating to specific business processes (e.g., a specific deal)) (*id.* 5:64-67 & 19:8-11). In contrast, Krug addresses concepts that are unhelpful in the communications context (e.g., objects on the Internet).

Although Petitioner asserts that the ‘217 Patent solves a problem of “useless or irrelevant documents” (Reply,10), the problem the ‘217 Patent actually solved was that “many email users receive hundreds of different emails a day,” including emails that are “junk,” “somewhat relevant,” and actually important. EX1001,1:26-27. Krug, which does not address sent content at all, is not reasonably pertinent to this problem of receiving an unwieldy volume of sent content. Instead, the problem addressed by Krug is a large number of documents being retrieved as “hits” in response to a search query on the Internet. EX1008,[0002]. Therefore, regardless of whether Krug is analogous art, a skilled artisan would not look to it to solve the problems the ‘217 Patent set out to solve.

For all of these reasons, the Kircher-Krug combination does not render obvious any claim of the ‘217 Patent.

VII. Dumais Is Not Prior Art.

A. No Improper Incorporation by Reference

Petitioner argues Patent Owner did not explain the relevance of the evidence it cited on the issue of priority. Reply,18. That is false. *See* Resp.,42 (EX2004 and EX2006 are “documents prepared by the inventors on September 2, 2004, and June

7, 2005” that “disclose each limitation” and show “conce[ption]”); *id.*,42 (EX2005&EX2007-2013 “show continued work on the mathematics”); *id.*,46 (EX2032-EX2078 are “additional evidence that both corroborates Justin Marston’s testimony and shows reasonable diligence”); *id.*,42 (first Declaration of Justin Marston (EX2003) shows “the inventors of the ‘217 Patent conceived of their invention at least as early as June 7, 2005.”); *id.*,46-47 (describing EX2030&EX2031 as “additional evidence that both corroborates Justin Marston’s testimony and shows reasonable diligence” and “show[s] that, during the critical period, Justin Marston had numerous other obligations running the company BlueSpace, and Paul Marston was working a full-time position as a lecturer on statistics”); *id.*,42 (EX2014 demonstrates that “[t]he Conception Documents disclose each limitation”); *id.*,42 (logs (EX2042&EX2041) demonstrate that “during the critical period, Justin Marston had numerous other obligations running the company BlueSpace”).

Petitioner complains about “sift[ing] through hundreds of documents, thousands of pages, to find the relevant facts,” but evidence corroborating conception is contained in just a few documents (*e.g.*, EX2004,EX2006,EX2049), and the fact that the reduction to practice evidence is voluminous only highlights the inventors’ diligence. Moreover, Patent Owner made efforts to make the evidence digestible, including providing a log summarizing voluminous diligence

documentation (EX2041) and a claim chart mapping the conception documents (EX2014).

B. Conception Evidence Is Corroborated.

The Board found that “the Conception Documents *themselves* are evidence of conception, which do not require further corroboration.” Decision, at 31-32. Nevertheless, Petitioner continues to assert that Patent Owner’s evidence of conception is “uncorroborated.” Reply,13.

Petitioner asserts that the Conception Documents (EX2004&EX2006) “lack any indication the Marstons authored them.” Reply,19. To the contrary, there is extensive evidence showing authorship. **First**, Justin Marston is the custodian of the documents (the documents came from his files). EX2004,35, EX2006,61, EX1050,203:16-21. **Second**, the Marstons provided comments (in tracked changes) to various drafts of the same document. *E.g.*,EX2043/EX2044. **Third**, other documents from the timeframe show the inventors’ work on the same invention. *E.g.*,EX2005,10 (File Name “Pauls Formula for Justins Business”); EX2009 (Author is “Marston”); *see also* Reply,20 (acknowledging “‘Marston’-authored documents”). **Finally**, EX2004/EX2006 are drafts of the provisional (EX1003,4-99), which Justin Marston emailed to the prosecuting attorney for filing. EX2042.

C. There Is No Basis to Exclude Exhibit 2014.

Petitioner argues that EX2014 should be excluded because relies on what a “skilled artisan would understand from the documentation,” but Justin Marston helped prepare it. Reply,19-20; EX1050,11:21-13:1 & 201:3-6. The only parts that discuss a POSA, however, are the parts discussing the “*module*” limitations, and those discussions come from Patent Owner’s expert’s opinions. EX2029,¶¶26-49. Patent Owner’s expert has at least as much experience as a skilled artisan. *Compare* EX2002&EX2029,¶¶10 (Ph.D. in Computer Science, taught, and researched since 2000) *with* Decision,8-9 (defining POSA). For the remaining limitations, the claim chart states only that the Conception Documents show “that, by at least June 7, 2005, Justin and Paul Marston had conceived of” each limitation. EX2014.

Importantly, it is the Conception Documents themselves, not EX2014, that show conception of each limitation.

D. The Evidence Shows Conception by the Named Inventors.

Petitioner asserts that the work by Jon Fernyhough “undercuts purported conception.” Reply,21. But Petitioner then points to **later** work by Fernyhough, **after** the Marstons had already conceived of their invention. Fernyhough’s later comments do nothing to “undercut” the evidence of conception by June 7, 2005.

Petitioner argues that, because the Marstons do not have degrees in computer science, the claimed “*computer program modules*” would not have been possible

without Fernyhough. Reply,21. But Justin Marston does have experience with computer programming, including computer programming work that was published in NATURE and coding used to build a system at British Nuclear Fuels (EX1050,56:1-58:9), and it was Paul Marston who developed the math/algorithms using his background in statistics (EX2031). Paul Marston's math/algorithms appear **before** Fernyhough's involvement. EX2004 & EX2006; *see also* EX2049. Every "module" was conceived of prior to Fernyhough's involvement. *Id.*; EX2014. There is no evidence Fernyhough contributed any novel element to any claim.

E. The Documents Show Conception of the "*identify...*" Limitation.

As Petitioner acknowledges, Patent Owner cites **numerous** passages from EX2004/EX2006 to show conception of the "*identify...*" limitation by June 7, 2005. Reply,22 (citing EX2014). The fact that **one** of the passages relates to "*identify[ing]*" only a "*cognate*" user (and does not address "*a recipient*") is irrelevant. Together, the passages show that the inventors had conceived of the element of "*identify[ing]*" a user that is **both** "*cognate to the [first] user*" and also "*a recipient*" of the same piece of content. For example, one cited passage states: "If the vast majority of the users in a given department read a piece of content sent globally [*recipients*], then the content is likely to be relevant to another user in that department [*cognate*]." E.g., EX2014,5 (quoting EX2004,15-16)).

F. The Evidence Shows Conception.

Petitioner asserts that, because the algorithms in the Conception Documents were refined after June 2005, the inventors had not conceived of their invention prior to Dumais. Reply,23. To the contrary, prior to Dumais, Paul Marston wrote the algorithms in EX2004, EX2047, and EX2049. EX2031,¶¶12&19. His later work reflected a “refinement to the formulas.” EX2031,¶¶12,16,19; *accord* EX2031,¶5 & EX1050,151:2-8. Thus, the evidence is that conception (including conception of the algorithms) was complete by June 7, 2005. There is no evidence that more than ordinary skill was required to achieve the subsequent, refined algorithms.

G. The Evidence Shows Diligence.

Patent Owner has submitted voluminous documentation showing all of the work the inventors put into reducing their invention to practice between June 2005 and January 2006. Reply,18 (noting Patent Owner has “over 2,600 pages” “as alleged evidence of conception and reduction to practice”). Nevertheless, Petitioner asserts “the joint inventors worked a mere 108 hours on the alleged invention.” Reply,24. That is not accurate. The 108 hours comes from Justin Marston’s testimony about how many hours he spent **adding sections to specific drafts** of the provisional patent application. EX2030,¶¶17,34,47. It does **not** include **any** of Paul Marston’s time (EX2064,116:10-22) or the work Justin Marston did outside of those

documents (e.g., correspondence exchanged between the Marstons (EX2030,¶8, EX2030,¶17).

Petitioner points to an alleged “gap” between November 13, 2005, and January 11, 2006 (Reply,25), but Justin Marston was working on many other, related matters for BlueSpace/TransMail,⁵ including an investment round, pitches to the federal government, moving the company overseas, a restructuring, travels, and other patent applications. EX2030,¶¶7-12; EX2041,2-5 (logging nearly sixty documents showing BlueSpace/TransMail work at the time); EX2042,3-4 (log showing correspondence exchanged with counsel during timeframe). Petitioner states, misleadingly, that Paul Marston “was on winter break” during this period, but his break was only two weeks. EX1066. The rest of the time, he was teaching statistics at a university full time. EX2031,¶10. Although Petitioner asserts alleged “gaps” are “unexplained,” both inventors have explained (and produced documentation showing) their many work-related activities at the time. In assessing whether inventors worked “reasonably continuously,” the Board must consider “the confines” of their occupations. Resp.47 (quoting *Perfect Surgical*, 841 F.3d at 1011).

Petitioner states “Justin Marston did not have ‘any communications relating to this patent application’ prior to January 11, 2006.” Reply,25. That is not true.

⁵ Work on TransMail is related to the ‘217 Patent invention (Reply,24-25), because (1) it was the product into which he intended to integrate the invention and (2) without securing funding, he could not continue to work on TransMail or the Patent. EX2030,¶7.

Although he did not exchange emails with his attorney about the application prior to January 11 (EX2042), there are communications between the Marstons about the invention prior to January 11. *E.g.*, EX1053 (PM “Letter to” JM), EX1054 (PM “Letter to” JM), EX2051 (PM “Thoughts” to JM); EX1044,92 & EX2044 (communications in tracked changes); *see also* EX2030,¶8 & EX2031,¶17 (Marstons exchanged emails).

Notably, the case law that Petitioner relies upon involved longer gaps than the ones Petitioner points to here. Reply,25. When the evidence is considered as a whole and under a rule of reason, it collectively corroborates the Marstons’ testimony that they worked reasonably continuously, within the confines their occupations, to diligently finalize the patent application during the critical period.

VIII. Dumais Does Not Disclose the “*identify...*” Limitation.

Petitioner fails to address how Dumais satisfies the requirement to “*identify ... a recipient.*” Pet.&EX1004. Petitioner points to paragraphs 244-250 of its expert’s declaration, but those paragraphs do not address where Dumais “*identifies*” “*a recipient.*”⁶ Moreover, nothing in Dumais teaches (or suggests the desirability of) “*identify[ing]*” another user(s) that received the same piece of content as the first

⁶ Paragraphs 245 & 247 address “*a recipient,*” but they do not address where Dumais discloses “*identify[ing]*” “*a recipient.*”

user (“*a recipient*”). EX1006. For this reason alone, Dumais does not render obvious any claim.

Petitioner points to Dumais’ discussion of emails (Reply,27), but Dumais’ **mention** of emails does not show that Dumais discloses “*identify[ing]*” “*a recipient*.” Petitioner’s analysis addresses “*cognate*” (EX1004,¶¶241-244, 246&248) separately from “*recipient*” (EX1004,¶¶245&247). He points to no discussion in Dumais of “*identify[ing]*” another “*user(s)*” that meets **both** criteria. *Accord* Pet.32-33(same). Petitioner points to Dumais’ discussion of collaborative filtering (Reply,27), but grouping together users using collaborative filtering is not the same as “*identify[ing]*” another “*user*” that is “*cognate to the first user*” and **also** received the same piece of sent content that the first user received (i.e., “*a recipient*”).

For all of these reasons, Dumais does not render obvious any claim of the ‘217 Patent.

IX. There Is No Basis for Ignoring Patent Owner’s Evidence of Secondary Considerations.

Petitioner argues that Patent Owner provided “no analysis linking the claims to Meta/X products” (Reply,28&30), but Patent Owner provided evidence identifying where each limitation is found in Twitter and showed how Twitter uses the “*cognate*” limitation. EX2079&Resp.54.

Petitioner argues that the fact that Twitter also was successful **before** it implemented the changes incorporating the invention somehow negates the “praise” and “commercial success” of the changes incorporating the invention (Reply,29-30), but Twitter itself has touted the success of the change. Resp.55&EX2081.

Petitioner complains that Patent Owner's evidence of “a long-felt need” comes from the specification, but that is not the only evidence of a long-felt need. E.g., EX2082,4 (prior art method of sorting content made it “tough to zero in on what matters most,” and users would “miss[] important stuff”); EX2081 (prior art method of sorting content resulted in “miss[ing] the tweets that may matter most to them”).

CONCLUSION

For the reasons set forth in the Response and above, Petitioner has not met its burden to show that any claim of the '217 Patent is obvious.

Respectfully submitted,

Dated: January 28, 2026

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CERTIFICATE OF SERVICE

Pursuant to 37 C.F.R. 42.6(e), I certify that on this 28th day of January, 2026, a true and correct copy of the foregoing **Patent Owner's Sur-Reply** was served by electronic mail on Petitioner's lead and backup counsel at the following addresses:

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