

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

META PLATFORMS, INC.,

Petitioners

v.

STERLING COMPUTERS CORPORATION,

Patent Owner.

IPR2025-00430

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

PETITIONER'S PRELIMINARY REPLY TO PATENT OWNER'S POPR

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EXHIBIT LIST

Ex No.	Reference
1001	U.S. Patent No. 7,716,217
1002	File History of the '217 Patent
1003	Declaration of Dr. Edward A. Fox in Support of Petition
1004	<i>Curriculum Vitae</i> of Dr. Edward A. Fox
1005	U.S. Pat. App. Pub. No. 2007/0016553 A1 to Dumais, et al.
1006	U.S. Pat. No. 6,202,058 B1 to Rose, et al.
1007	U.S. Pat. No. 6,334,127 to Bieganski, et al.
1008	Michael Lesk, <i>Understanding Digital Libraries</i> (Elsevier, 2nd ed. 2005)
1009	William Y. Arms, <i>Digital Libraries</i> (MIT Press, 1st ed. 2000)
1010	John M. Carroll, <i>Human-Computer Interaction in the New Millennium</i> (Pearson Education 2002)
1011	Mike Kuniavsky, <i>Observing the User Experience: A Practitioner's Guide to User Research</i> (Elsevier 2003)
1012	Ben Shneiderman, <i>Designing the User Interface: Strategies for Effective Human-Computer Interaction</i> (Addison Wesley 3rd ed. 1998)
1013	Daniel E. Rose and Danny Levinson, <i>Understanding user goals in web search</i> , 13–19 (In Proc. WWW '04, Association for Computing Machinery, May 2004)
1014	Jaime Teevan, et al., <i>Personalizing Search via Automated Analysis of Interests and Activities</i> , 449-56 (In Proc. of SIGIR '05)
1015	Bradley N. Miller, B. et al., <i>Experiences with GroupLens: Making Usenet Useful Again</i> , 219-33 (In Proc. of the USENIX 1997 Annual Technical Conference)
1016	Mark Claypool, et al., <i>Combining Content-Based and Collaborative Filters in an Online Newspaper</i> , (ACM SIGIR Workshop on

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	Recommender Systems, Aug. 1999)
1017	David Goldberg, et al., <i>Using Collaborative Filtering to Weave an Information Tapestry</i> , Vol. 35, No. 12, 61-70 (Communications of the ACM, Dec. 1992)
1018	Prem Melville, et al., <i>Content-Boosted Collaborative Filtering for Improved Recommendations</i> , 187-92 (In Proc. of the Eighteenth National Conference on Artificial Intelligence, AAAI-2002)
1019	Daniel E. Rose, <i>Beyond Search: The Information Access Research Group at Apple</i> , 85–89 (SIGCHI Bull. Vol. 30, No. 2, Apr. 1998)
1020	Daniel E. Rose et al., <i>MessageWorld: A New Approach to Facilitating Asynchronous Group Communication</i> , 266-73 (Association for Computing Machinery, In Proc. of the Fourth International Conference on Information and Knowledge Management (CIKM), Dec. 1995)
1021	U.S. Patent No. 8,799,461 B2 to Herz, et al.
1022	S. Kim and E. Fox, <i>Interest-Based User Grouping Model For Collaborative Filtering In Digital Libraries</i> (In Proc. of the 7th International Conference on Digital Libraries (ICADL), Dec. 2004)
1023	Nicholas J. Belkin and W. Bruce Croft, <i>Information Filtering and Information Retrieval: Two Sides of the Same Coin?</i> 29-38, Communications of the ACM, 35:12, (Dec. 1992)
1024	Kent Wittenburg and Eric Sigman, <i>Integration of Browsing, Searching, and Filtering in an Applet for Web Information Access</i> , 22-27 (In Proc. of the ACM SIGCHI Conference on Human Factors in Computing Systems, Mar. 1997)
1025	Seikyung Jung, et al., <i>Applying Collaborative Filtering for Efficient Document Search</i> , 20-24 (In Proc. of the IEEE/WIC/ACM International Conference on Web Intelligence, Sept. 2004)
1026	U.S. Patent No. 6,826,559 B1 to Ponte

Ex No.	Reference
1027	U.S. Patent No. 7,047,242 B1 to Ponte
1028	U.S. Patent No. 9,864,813 B2 to Melton, et al.
1029	U.S. Pat. App. Pub. No. 2004/0078447 to Malik, et al.
1030	John McKeogh and Chris Exton, <i>Eclipse plug-in to monitor the Programmer Behaviour</i> , In Proceedings of the 2004 OOPSLA Workshop on Eclipse Technology eXchange (Eclipse '04), 93–97 (Association for Computing Machinery, New York, NY Oct. 2004)
1031	Charles Rich, et al, <i>A Plug-in Architecture for Generating Collaborative Agent Responses</i> , 782–89 (In Proc. AAMAS '02, Association for Computing Machinery, New York, NY)
1032	John Domingue, et al. <i>Magpie: Supporting Browsing and Navigation on the Semantic Web</i> , 191–97 (In Proc. IUI '04, Association for Computing Machinery, New York, NY, 2004)
1033	Rickard Cöster and Martin Svensson, <i>Inverted File Search Algorithms for Collaborative Filtering</i> , 246–52 (In Proc. SIGIR '02, Association for Computing Machinery, New York, NY, 2002)
1034	Lenwood S. Heath, et al., <i>Envision: A User-Centered Database of Computer Science Literature</i> . Commun. ACM, Vol. 38, No. 4 (Apr. 1995)
1035	Lucy Terry Nowell, et al., <i>Visualizing search results: some alternatives to query-document similarity</i> , 67–75 (In Proc. SIGIR '96, Association for Computing Machinery, New York, NY, 1996)
1036	Tefko Saracevic, <i>A Review of and a Framework for the Thinking on the Notion in Information Science</i> , 321-43 (Journal of the Am. Society for Info. Sci., Dec. 1975)
1037	Docket for <i>Sterling Computs. Corp. v. Meta Platforms, Inc. f/k/a Facebook, Inc.</i> , Case No. 1:24-cv-00551 (W.D. Tex. May 22, 2024)
1038	Docket for <i>Sterling Computs. Corp. v. X Corp. f/k/a Twitter, Inc.</i> , 1:24-cv-00552 (W.D. Tex. May 22, 2024)

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1039	<i>Sotera</i> Stipulation, dated April 30, 2025

As shown in the Petition, every claim of the '217 Patent is unpatentable as obvious. Sterling's attempt to antedate Dumais is undercut by its own conception evidence. Likewise, Sterling's narrowing claim constructions run afoul of the intrinsic record. The Board should reject Sterling's challenge to Grounds 1-3.

I. The '217 Patent Is Not Entitled to An Earlier Invention Date

Sterling fails to show the '217 Patent's named inventors conceived of the claimed invention earlier than Dumais' June 29, 2005 priority date. POPR, 28. Sterling relies on a declaration and documentation of a named inventor, Mr. Justin Marston. But to prove conception, an inventor's testimony must have corroborating evidence "*in addition to* [the inventor's] own statements *and documents*." *Apator Miitors ApS v. Kamstrup A/S*, 887 F.3d 1293, 1295 (Fed. Cir. 2018);¹ *Hahn v. Wong*, 892 F.2d 1028, 1033 (Fed. Cir. 1989) (corroborating evidence must be "independent of information received from the inventor"). Moreover, the "last modified" date of EX2007-EX2013 confirms each of those exhibits were edited after Dumais. Mr. Marston states that the "math involved" in the invention is "highly complex," and "took significant effort to develop." EX2003, ¶11(c). However, the math and "algorithms" sections of the Conception Documents (EX2004; EX2006) state: "INITIAL MATHS HAS BEEN DRAFTED WITH A MATHEMATICIAN, BUT IS IN

¹ All emphases added, unless indicated otherwise.

NEED OF SIGNIFICANT CHANGES.” EX2004, 29; EX2006, 53. Documents recommending “continued work” are insufficient to demonstrate conception. *Dawson v. Dawson*, 710 F.3d 1347, 1353 (Fed. Cir. 2013). The “algorithms” section was rewritten in August 2005. EX2007, 77; *compare* EX2006, §9 *with* EX2007, §9. Similarly, Sterling’s documents show that the inventors did not possess the calculation for “cognate relevance values” until Nov. 9, 2005. EX2013, 3; EX2003, ¶11(g). Since more than “ordinary skill [was] necessary to reduce the invention to practice,” conception did not occur before June 29, 2005. *Dawson*, 710 F.3d at 1352-56.

Similarly, where an idea is still in flux, it cannot establish conception. *Burroughs Wellcome Co. v. Barr Lab’ys, Inc.*, 40 F.3d 1223, 1229 (Fed. Cir. 1994) (subsequent experimentation can show “uncertainty” that undermines conception); *Hitzeman v. Rutter*, 243 F.3d 1345, 1358–59 (Fed. Cir. 2001) (“[A]n inventor who failed to appreciate the claimed inventive features of a device at the time of alleged conception cannot use his later recognition of those features to retroactively cure his imperfect conception.”). Sterling’s documents show that Mr. Marston revisited earlier drafts, suggesting he did not have a final idea of his invention. *Compare* EX2005 (last modified May 12, 2005) *with* EX2006 (created Apr. 18, 2005); *compare* EX2010 (last modified Oct. 6, 2005) *with* EX2011 (created Oct. 3, 2005).

Mr. Marston’s declaration confirms a lack of reasonable diligence. He states: “[b]y June 7, 2005, Paul and I had conceived a system with...all features of the

claims.” EX2003, ¶14. However, Mr. Marston does not indicate when the draft documents were sent to Sterling’s prosecution counsel—other than before they were filed on Jan. 11, 2006. EX2003, ¶12. Mr. Marston also does not explain gaps in the named inventors’ activities between (1) June 7 and Aug. 16, 2005 (70 days) (EX2006, 61; EX2007, 77); (2) Aug. 17 and Sept. 18, 2005 (32 days) (EX2009, 78; EX2010, 95); (3) October 7, 2005 and Nov. 9, 2005 (34 days) (EX2012, 95; EX2013, 3); and (4) Nov. 9, 2005, and Jan. 11, 2006 (63 days) (EX2013, 3; EX2003, ¶12). To antedate a reference, a patent owner must show reasonable diligence throughout the entire critical period. *Perfect Surgical Tech., Inc. v. Olympus Am., Inc.*, 841 F.3d 1004, 1007 (Fed. Cir. 2016); *see also In re Meyer Mfg. Corp.*, 411 F. App’x 316, 319 (Fed. Cir. 2010) (finding lack of diligence due to an “unexplained gap of just over two months”). Sterling has failed to show reasonable diligence for nearly 200 days of the critical period, suggesting the inventors were not reasonably diligent.

The metadata associated with Sterling’s conception documents also contradict Mr. Marston’s declaration. Though Mr. Marston states that he and Paul revised the Blue Space Mail Relevance document, the native version of EX2010 shows extensive edits by a third individual, Jon Fernyhough, who last saved and edited the document. EX2003, ¶11(f). Mr. Fernyhough’s contributions cannot inure to Mr. Marston’s benefit because (1) Sterling has not established Mr. Fernyhough did so at Mr. Marston’s direction, (2) Mr. Marston has not demonstrated conception, and (3) Mr.

Fernyhough added substantive material reflected in the claims (e.g., relevance calculations (EX2010, 80-81), calculation of local importance). On June 23, 2025, the Board advised that “no additional evidence may be submitted” with Meta’s reply. Should it be helpful to the Board to consider a complete record, Petitioner can submit: (1) a complete version of EX2010 and (2) screenshots of its system metadata.

Sterling’s claim chart should be ignored as improper incorporation by reference. POPR, 28 (citing EX2014); 37 C.F.R. §42.6(a)(3); Practice Guide, 35-36.

II. Sterling’s Construction of “*Recipient*” Is Unsupported

Sterling seeks to distinguish Dumais and Rose/Bieganski by importing a “sender” requirement into the claim term “*a recipient*.” POPR, 33-36, 48-50. Sterling argues that “*a recipient*” “must be a user that actually received the piece of electronic content **sent from a sender**.” POPR, 24. But the plain and ordinary meaning of a recipient is someone who receives the content by any means (e.g., access control).

First, Sterling’s construction contradicts the claim language. Element 1[pre] recites: “content sent from a sender to a user.” The “identification” limitation (Element 1[f]) does not recite a “sender” or “sending.” Because the patentee could have and chose not to include this additional “sender” limitation, “recipient” in Element 1[f] should carry its broader meaning, i.e., someone who receives. Sterling’s construction also limits “electronic content” in the independent claims to emails and messages with senders, which is inconsistent with dependent claims 5 and 15 that

confirm the electronic content can be a “document.”

Second, Sterling’s construction improperly limits “*recipient*” to a single embodiment. The claims of the ’217 Patent occur within “*an application for managing electronic content.*” One example of such an application is an email system—where content is “sent from a sender.” POPR, 24. But the specification also describes a “document management system,” such as a “relational mail system,” where each message is centrally managed according to a “compliance model.” EX1001, 3:46-48, 3:54-56, 5:28-33. This “compliance model” can be used to determine “who can access content.” *Id.* Using “cluster models,” the system “segments users... into categories based on their actions or attributes.” *Id.*, 44:37-39. One example of a “cluster,” is “allowed readers” (i.e., “users who are allowed to read the mail”). *Id.*, 9:51-10:8. Sterling’s construction would exclude this embodiment.

None of Sterling’s citations to the specification (POPR, 24-25) describe a “*recipient*” in the context of identifying cognate users. Instead, each example is a generic description of an email message. There is no indication that these examples were intended to limit the meaning of the word “*recipient*,” especially where other examples describe identification of users based on access controls.

Finally, the Board need not construe this term because the prior art of record satisfies the claim under either party’s construction. *See Nidec Motor Corp. v. Zhongshan Broad Ocean Motor Co. Ltd. Matal*, 868 F.3d 1013, 1017 (Fed. Cir.

2017). Dumais identifies a cognate user based on a “personalization component” using collaborative filtering techniques to build “user models” that analyze “similarities among...groups of individuals...based on the content and/or usage of items.” EX1003, ¶¶120, 155; Pet., 31, 42. Dumais teaches monitoring when “data items” such as “email messages” are “forwarded, replied to, [or] sent to” other users. EX1003, ¶124; Pet. 32; POPR, 31. Likewise, Rose ranks email messages—involving a sender and recipient—“according to their likely degree of relevance.” Pet. 49-50, 70; EX-1006, 8:23-40 (“[T]he relevance score of a particular message takes into account not only on the user’s own interests, *but also feedback from the community*.”). And in Ground 3, Rose’s emails are ranked using Bieganski’s “automated collaborative filtering” to group users into “affinity groups” or “neighborhoods” based on “shared interests.” Pet. 68; EX1003, ¶¶96, 237; EX1007, 6:39-7:65.

III. Sterling’s Construction of “*Cognate*” Is Unsupported

Sterling argues that “cognate users in the ’217 Patent are **more restricted** than” the prior art and must be based on actions performed on “the piece of electronic content” while “*determining a relevance score*.” POPR, 37.

Claim 1 does not require identifying cognate users by analyzing past user actions or user identification as part of “*determining a relevance score*.” Sterling is importing limitations from Element 1[g][iv] (determining relevance based on actions of the cognate user) into Element 1[f] (identifying cognate users). Dependent claim 8

requires “*identifying*” cognate users by “*analyzing historical actions*,” suggesting the independent claim is not limited as Sterling contends.

Sterling’s construction also conflicts with the specification. The specification explains that identifying a “cognate group” can be determined using “**collaborative filtering**.” Pet. 13. Sterling’s argument that the cognate users of the “’217 Patent are **more restricted** than the generic **collaborative filtering** described in Dumais” is, therefore, inconsistent with the specification. Notably, Sterling does not challenge that Rose or Bieganski teach this limitation, despite Bieganski—like Dumais—identifying similar users using “collaborative filtering.” Pet. 74; EX-1007, 6:27-36.

The prior art satisfies the claim under either party’s construction. *Nidec*, 868 F.3d at 1017. As explained in the Petition, Dumais discloses determining an “ultimate ranking” (relevance score) of search results based on (1) “considering or weighting from ‘determined activity data’” as derived from “‘tags’ on data items”), and (2) user model data (*e.g.*, “Rich Client Interactions,” “Other Users,” etc.). Pet. 35-37. Sterling argues that Dumais’s collaborative filtering does not identify a cognate user because it develops individual or group profiles and “predict[s] likely or possible profiles for new users of a system.” POPR, 37. However, Dumais develops these profiles by analyzing “similarities among individuals or groups” and observing user interactions to identify which users “belong[] to a desired social network of interest.” Pet. 18, 31 (claims 1[f]/6[d]/7[d]), 42 (claims 8/22); EX1007, ¶¶21, 43-50, 52.

Respectfully submitted,

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CERTIFICATE OF SERVICE

I hereby certify that on July 7, 2025 true and correct copies of the foregoing PETITIONER'S PRELIMINARY REPLY was served via electronic mail upon the following counsel of record for Patent Owner:

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