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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte RODERICK B. WIDEMAN

Appeal 2017-004299
Application 14/515,705
Technology Center 2400

Before JOSEPH L. DIXON, JOHN A. JEFFERY, and JOYCE CRAIG, *Administrative Patent Judges*.

JEFFERY, *Administrative Patent Judge*.

DECISION ON APPEAL

Appellant appeals under 35 U.S.C. § 134(a) from the Examiner's decision to reject claims 1–20. We have jurisdiction under 35 U.S.C. § 6(b). We affirm-in-part.

STATEMENT OF THE CASE

Appellant's invention uses a messaging policy to avoid sending duplicate messages. To this end, the system determines whether a degree of duplication in an email message exceeds a threshold and, if so, the message is deduplicated to produce a reduced email message with less information than the original message. *See generally* Abstract; Spec. ¶¶ 24–27. Claim 1, reproduced below with our emphasis, is illustrative:

1. A non-transitory, computer-readable medium storing computer-executable instructions that when executed by a personal communication device, control the personal communication device to perform a method, the method comprising:

accessing a messaging policy;

interfacing with an email application running on the personal communication device;

accessing an email message associated with the email application;

determining a degree of duplication in the email message;

upon determining that the degree of duplication exceeds a threshold identified in the messaging policy, *deduplicating* the email message to produce a reduced email message having less information than the email message, and providing the reduced email message to a recipient; and

upon determining that the degree of duplication does not exceed a threshold identified in the messaging policy, providing the email message.

THE REJECTIONS[1]

The Examiner rejected claim 1 under 35 U.S.C. § 103(a) as unpatentable over Graff (US 2014/0379814 A1; Dec. 25, 2014)[2] and Staats

[1] Because the Examiner withdrew a rejection under § 101 (Ans. 2), that rejection is not before us.

[2] Graff's filing date (June 21, 2013) is before the present application's filing date (October 16, 2014), but after the August 16, 2011 filing date of the parent application (13/210,590) of which the present application is a continuation-in-part. Nevertheless, Appellant does not dispute Graff's qualification as prior art to the present application.

(US 2007/0282956 A1; Dec. 6, 2007). Final Act. 7–9.[3]

The Examiner rejected claims 2–4, 7, and 9–13 under 35 U.S.C. § 103(a) as unpatentable over Graff, Staats, and Floyd (US 9,092,151 B1; July 28, 2015).[4] Final Act. 9–16.

The Examiner rejected claim 8 under 35 U.S.C. § 103(a) as unpatentable over Graff, Staats, Floyd, and Grobman (US 2004/0010543 A1; Jan. 15, 2004). Final Act. 16–17.

The Examiner rejected claims 14–20 under 35 U.S.C. § 103(a) as unpatentable over Floyd, Graff, and Staats. Final Act. 18–25.

THE OBVIOUSNESS REJECTION OVER GRAFF AND STAATS

The Examiner finds that Graff discloses, among other things, upon determining that a degree of duplication exceeds a threshold identified in a messaging policy, deduplicating an email message to suppress the message; otherwise, providing the message. Final Act. 7–9. The Examiner acknowledges that Graff does not explicitly disclose deduplicating a message to produce a reduced email message having less information than the email message, and providing the reduced email message to a recipient, and cites Staats for teaching this feature in concluding that the claim would have been obvious. Final Act. 9.

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[3] Throughout this opinion, we refer to (1) the Final Rejection mailed May 2, 2016 ("Final Act."); (2) the Appeal Brief filed September 12, 2016 ("App. Br."); (3) the Examiner's Answer mailed November 14, 2016 ("Ans."); and (4) the Reply Brief filed January 13, 2017 ("Reply Br.").

[4] Floyd's filing date (March 13, 2013) is before the present application's filing date, but after that of the '590 parent application. Nevertheless, Appellant does not dispute Floyd's qualification as prior art to the present application.

Appellant argues that Graff and Staats collectively do not teach or suggest the recited deduplication. App. Br. 20–23; Reply Br. 5–7. According to Appellant, Graff sends messages across multiple platforms to recipients in a multi-organizational environment, and Staats organizes and views a message thread according to a hierarchy. App. Br. 23. Appellant acknowledges that Graff can suppress duplicate email messages, but argues this suppression differs from deduplication because it does not delete the email message, but rather does not display it. Reply Br. 5–7.

ISSUE

Under § 103, has the Examiner erred in rejecting claim 1 by finding that Graff and Staats collectively would have taught or suggested upon determining that a degree of duplication exceeds a threshold identified in a messaging policy, deduplicating an email message to produce a reduced email message having less information than the email message; otherwise, providing the message?

ANALYSIS

We begin by construing a key term in claim 1, namely "deduplicating." Notably, the Specification does not define the term "deduplicating" explicitly, unlike other terms whose clear definitions leave no doubt as to their meaning. *See, e.g.,* Spec. ¶¶ 43–48 (defining "computer-readable medium," "data store," "logic," etc.). Nevertheless, the Specification explains that deduplication reduces redundant data by storing a single copy of data, and *may* involve dividing a larger piece of data into smaller pieces of data. Our emphasis on the permissive term "may"

underscores that this division-based deduplication is merely one exemplary form of deduplication—not the *only* such form described in the Specification. *Accord* Spec. ¶ 15 ("While chunking and hashing are described, one of ordinary skill in the art will appreciate that other data deduplication approaches may be employed.").[5]

Although this description informs our understanding of the recited deduplication, it is not limiting. We, therefore, construe the term "deduplicating" with its plain meaning in the art. One computer dictionary defines the term "dedupe" (which is short for "deduplicate") as "the operation of removing duplicate entries from a database of names and addresses." Dick Pountain, THE PENGUIN CONCISE DICTIONARY OF COMPUTING 113 (2003). Another dictionary defines the term "dedupe" as "[a] file processing term for removing duplicate records from the base file." Harry Newton, NEWTON'S TELECOM DICTIONARY 289 (22d ed. 2006).

Given this understanding of deduplication in the art and the associated description in the Specification, deduplicating an email message in the context of claim 1, then, involves removing at least some duplicate data or information from that message to produce a reduced email message with less information than the original email message.

With this construction, we see no error in the Examiner's reliance on Graff and Staats for collectively at least suggesting the recited deduplication. Final Act. 8–9; Ans. 4–7, 9–11. As Graff's Abstract explains, messages may

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[5] That dependent claim 2 further limits the recited deduplication to a particular chunking technique underscores the fact that independent claim 1 is not limited to that particular deduplication technique under claim differentiation principles. *See Free Motion Fitness, Inc. v. Cybex Int'l, Inc.*, 423 F.3d 1343, 1351 (Fed. Cir. 2005).

be screened to reduce or eliminate potentially duplicate messages via duplication filters. Graff's system identifies these potentially duplicate messages by determining whether a particular degree of duplication exceeds a policy-based threshold and, if so, the duplicate message is suppressed *in some embodiments* so that it is invisible to the recipient. *See* Final Act. 8–9 (citing Graff ¶¶ 111–21, 126).

Our emphasis underscores the fact that Graff's technique is not limited to suppressing duplicate messages to prevent their display as Appellant seems to suggest (*see* Reply Br. 6), but also includes deleting duplicate messages in other embodiments. *See* Graff ¶ 126. Although Appellant is correct that Graff's supressing duplicate messages *includes* not deleting them (Reply Br. 6) with respect to some embodiments, Graff's paragraph 126 nonetheless also suggests deleting duplicate messages in other embodiments. *Accord* Graff ¶ 138 (noting that Graff's system can *eliminate* all but one of the identified duplicate messages to prevent delivering the duplicates). But leaving this deletion aside, the Examiner finds—and we agree—that Graff's suppressing duplicate messages "deduplicates" those messages to the extent that at least some duplicate data or information from those messages is removed at least with respect to their display. *See* Final Act. 8; Ans. 6. Appellant's arguments to the contrary (Reply Br. 5–6) are unavailing and not commensurate with the scope of the term "deduplicating" noted previously.

Although the Examiner acknowledges that Graff does not *explicitly* disclose deduplicating a message to produce a *reduced* email message having less information than the email message, and providing the reduced email message to a recipient, we see no error in the Examiner's reliance on

Staats for at least suggesting that feature. Final Act. 9; Ans. 7, 9–11. The Examiner finds—and we agree—that blocking displaying duplicate content in a parent message in Staats' Figure 2D and paragraph 47 at least suggests producing a reduced email message with less information than the original email message. Final Act. 9; Ans. 7.

Given this functionality, we see no error in the Examiner's conclusion that providing a *reduced* email message in Graff's deduplicating system would have been obvious in light of Staats for the reasons indicated by the Examiner. Final Act. 9; Ans. 10–11. Appellant's arguments regarding Graff's and Staats' individual shortcomings regarding the recited deduplication (App. Br. 20–21; Reply Br. 5–6) do not show nonobviousness where, as here, the rejection is based on the cited references' collective teachings. *See In re Merck & Co.,* 800 F.2d 1091, 1097 (Fed. Cir. 1986). On this record, the Examiner's proposed combination is supported by articulated reasoning with some rational underpinning to justify the Examiner's obviousness conclusion.

Therefore, we are not persuaded that the Examiner erred in rejecting claim 1.

THE REJECTION OVER GRAFF, STAATS, AND FLOYD

We also sustain the Examiner's rejection of claim 2 reciting, in pertinent part, a repository of sub-blocks specific to the email application. Despite Appellant's arguments to the contrary (App. Br. 23–24; Reply Br. 2), Appellant does not persuasively rebut the Examiner's reliance on Floyd for at least suggesting the recited email-specific sub-block repository. Final Act. 10–11; Ans. 12–13. In the Background section describing known

deduplication functions, Floyd explains that an example of a stored file made up of one or more segments (i.e., "chunks") can be an attachment to multiple emails in an *email* storage system. Floyd, col. 1, ll. 17–31. This storage system of email-based chunks at least suggests a repository of chunk-based sub-blocks specific to an associated email application.

Therefore, we are not persuaded that the Examiner erred in rejecting claim 2, and claims 3, 4, 7, and 9–13, not argued separately with particularity.

THE REJECTION OVER GRAFF, STAATS, FLOYD, AND GROBMAN

We do not, however, sustain the Examiner's rejection of claim 8 reciting removing an attachment to the email message upon determining that the attachment has more than a threshold number of duplicate sub-blocks with respect to the repository of sub-blocks. On this record, we find problematic the Examiner's reliance on Grobman's paragraphs 23, 27, and 30 for teaching this feature. *See* Final Act. 16–17; Ans. 16–18.

Paragraph 14 of Appellant's Specification explains that larger pieces of data (i.e., "blocks") are divided into small pieces of data known as "sub-blocks" or "chunks." Claim 8, then, implicitly requires dividing an email attachment into sub-blocks, and comparing the number of those sub-blocks to a threshold.

Although Grobman's system uses hash values to avoid obtaining duplicate copies of email attachments in paragraphs 23, 27, and 30 as the Examiner indicates (Ans. 18), we fail to see—nor has the Examiner explained—how this use of hash values teaches or suggests dividing the attachment into sub-blocks, let alone comparing the number of those

sub-blocks to a threshold as a basis for removing the attachment as claimed. *Accord* App. Br. 26–27; Reply Br. 4–5 (noting this deficiency). Nor will we speculate in that regard here in the first instance on appeal.

Therefore, we are persuaded that the Examiner erred in rejecting claim 8.

THE REJECTION OF CLAIMS 14–20

Claims 14 and 15

We will, however, sustain the Examiner's rejection of claim 14 essentially for the reasons indicated previously regarding claims 1 and 2, and the reasons indicated by the Examiner. Final Act. 17–21; Ans. 13–14. First, Appellant's arguments regarding Graff and Staats not generating a reduced email message (App. Br. 24) are unpersuasive for the reasons previously discussed. Second, Appellant's arguments regarding Floyd's alleged shortcomings (App. Br. 24–25) are not germane to the reason why the Examiner cited the reference and do not persuasively rebut the Examiner's rejection, which is not based on Floyd alone, but rather the cited references' collective teachings. *See* Final Act. 17–21; *see also Merck*, 800 F.2d at 1097.

Therefore, we are not persuaded that the Examiner erred in rejecting claim 14, and claim 15 not argued separately with particularity.

Claims 16–20

We also sustain the Examiner's rejection of claim 16 reciting, in pertinent part, the thread specific repository of sub-blocks is specific to a group of less than 100 email recipients. Claim 16 depends from claim 15

which depends from independent claim 14. In rejecting claim 14, the Examiner relies on Floyd for teaching, among other things, deduplicating the message by (1) chunking the message into sub-blocks, and (2) identifying duplicate or unique sub-blocks with respect to a thread specific repository of sub-blocks. Final Act. 18–19. The Examiner also cites Floyd for teaching the limitations of claim 15 from which claim 16 depends. Final Act. 21–22.

In rejecting claim 16, however, the Examiner cites Graff for teaching the additional limitation that the thread specific repository of sub-blocks is specific to a group of less than 100 email recipients. Final Act. 22 (citing Graff ¶¶ 82–85, 111–21, 126).

Despite Appellant's arguments to the contrary (App. Br. 25–26; Reply Br. 3–4), we see no error in the Examiner's reliance on Graff in this regard, particularly when considered in light of the teachings of the other cited references, including Floyd. Because the Examiner finds that Floyd teaches a thread specific repository of sub-blocks (Final Act. 21–22), we see no reason why such a repository could not be specific to a group of email recipients, particularly in light of Graff's teachings regarding recipients receiving messages via email in paragraph 84. Appellant's arguments regarding Graff's individual shortcomings regarding the recited repository (App. Br. 25–26; Reply Br. 3–4) do not show nonobviousness where, as here, the rejection is based on the cited references' collective teachings. *See Merck,* 800 F.2d at 1097.

To be sure, Graff does not specify a particular number of email recipients, let alone less than 100 as claimed. Nevertheless, given the cited references' collective teachings, we see no reason why limiting the disclosed recipients to less than 100 would not have been at least an obvious variation

within the level of ordinarily skilled artisans yielding a predictable result. To the extent that Appellant contends otherwise (*see* App. Br. 25–26; Reply Br. 3–4), there is no persuasive evidence on this record to substantiate such a contention.

Therefore, we are not persuaded that the Examiner erred in rejecting claim 16, and claims 17–20 not argued separately with particularity.

CONCLUSION

Under § 103, the Examiner did not err in rejecting claims 1–7 and 9–20, but erred in rejecting claim 8.

DECISION

We affirm-in-part the Examiner's decision to reject claims 1–20.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED-IN-PART