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Paper No. 7
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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

FACEBOOK, INC., INSTAGRAM, LLC, and WHATSAPP INC.,
Petitioner,

v.

BLACKBERRY LIMITED,
Patent Owner.

Case IPR2019-00516
Patent 8,279,173 B2

Before MIRIAM L. QUINN, JACQUELINE T. HARLOW, and AARON W. MOORE, *Administrative Patent Judges.*

HARLOW, *Administrative Patent Judge.*

DECISION
Institution of *Inter Partes* Review
35 U.S.C. § 314

I. INTRODUCTION

Facebook, Inc., Instagram, LLC, and WhatsApp Inc. (collectively, "Petitioner"), filed a Petition (Paper 2, "Pet."), requesting *inter partes* review of claims 1, 2, 4, 6–8, 10, 12–14, 16, and 18 of U.S. Patent No. 8,279,173 B2 (Ex. 1001, "the '173 patent"). Blackberry Limited ("Patent Owner") timely filed a Preliminary Response (Paper 6, "Prelim. Resp.").

Under 35 U.S.C. § 314(a), an *inter partes* review may not be instituted unless the information presented in the petition "shows that there is a reasonable likelihood that the petitioner would prevail with respect to at least 1 of the claims challenged in the petition." For the reasons stated below, we determine that there is a reasonable likelihood that Petitioner would prevail with respect to at least one challenged claim. We hereby institute *inter partes* review of the challenged claims on all the grounds of unpatentability asserted in the Petition.

A. Related Matters

The '173 patent is the subject of a district court proceeding in the Central District of California, captioned *BlackBerry Ltd. v. Facebook, Inc.*, Case No. 2:18-cv-01844-GW-KS (C.D. Cal.). Pet. 2; Paper 4, 2. In addition, Petitioner filed a second petition seeking *inter partes* review of the '173 patent in IPR2019-00528 ("the '528 IPR"). '528 IPR, Paper 6, 1. Our decision instituting *inter partes* review in the '528 IPR issued concurrently with this Decision.

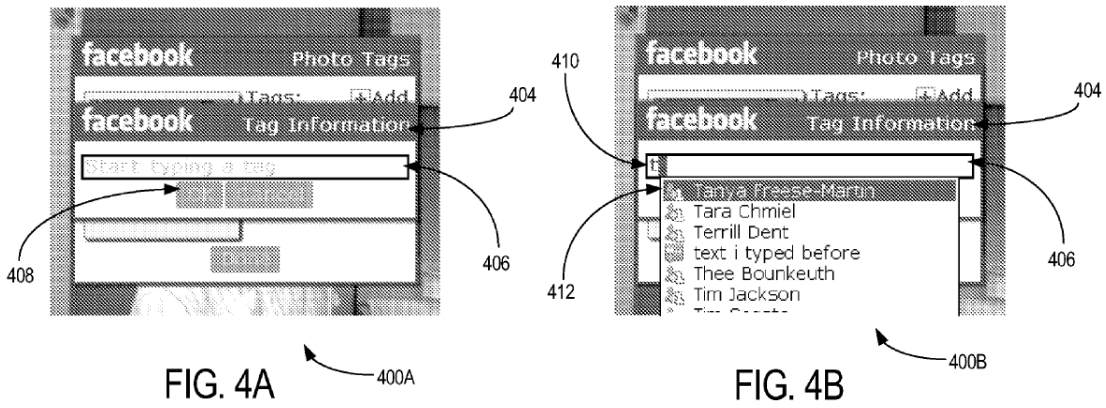
B. The '173 Patent

The '173 patent relates to a "user interface for selecting a photo tag" to associate with a digital photograph, for example, in a social networking or photo sharing application. Ex. 1001, 1:15–23. The patent recognizes the existence of prior art methods for tagging digital photographs, but explains that an improved user interface is needed because "[s]electing a 'tag' to associate with an identified point in a photograph can be a complicated task if there are many potential tags to choose from," and "common techniques used on desktops and laptops with full sized screens do not work as well" on smaller wireless mobile devices. *Id.* at 1:23–32. To this end, the '173 patent discloses a

> user interface [that] embodies a method of selecting a photo tag for a tagged photo, comprising: providing a tag entry field for entering a photo tag; in dependence upon a string entered by a user, displaying in a matching tag list any tags from one or more selected tag sources matching the entered string. The method may further comprise displaying a tag type for each tag appearing in the matching tag list. The method may further comprise allowing user selection of a tag in the matching tag list to complete the tag entry field.

Id. at Abstract.

Figures 4A and 4B of the '173 patent, reproduced below, depict an exemplary user interface in accordance with the claimed invention. Ex. 1001, 1:43–44.



Referring to Figure 4A, the '173 patent explains that the tag selection user interface presents the user "with a tag entry field 406 indicating that he should start typing a tag." *Id.* at 5:32–37.

> [A]s the user begins to type, photo tag selection module 148B may be configured to search one or more selected "tag sources" for tags that match the currently entered text. As shown by way of illustration in screen 400B of FIG. 4B, these tag sources could include, for example, a list of friends from an online service like Facebook™, a list of contacts from the user's address book 142, a list of the user's browser bookmarks (in Internet browser 138), a cache of recent free-form text entries, etc.

Id. at 5:39–47. The '173 patent further explains that

> photo tag selection module 148B may be configured to display any matching tags . . . from one of the tag sources to the tag being typed by the user in the tag entry field 406 in a matching tag list 412. Each tag may have an icon or some other visual identifier associated with it that clearly indicates its type, and allows the user to quickly distinguish between different types of tags.

Id. at 5:49–55. According to the patent, similar to "tag sources," "tag types could include a free-form alphanumeric string, Facebook™ friends, address book entries (in address book 142), browser bookmarks (in Internet browser module 138), etc." *Id.* at 4:46–50.

C. Challenged Claims

Petitioner challenges claims 1, 2, 4, 6–8, 10, 12–14, 16, and 18 of the '173 patent. Claims 1, 7, and 13 are independent. Claim 1 is representative, and is reproduced below:

> 1. A method of selecting a photo tag for a tagged photo, comprising:
>
> displaying a tag list including tags from one or more tag sources matching a search string;
>
> displaying a tag type indicator for each tag appearing in the tag list, said tag type being indicative of a tag source associated with the tag.

Ex. 1001, 9:14–21. Independent claims 7 and 13 respectively recite a "system" and "computer readable medium" for performing the method of claim 1. *Id.* at 9:34–41, 10:13–21.

D. Asserted Grounds of Unpatentability

Petitioner asserts the following grounds of unpatentability (Pet. 4–5):

Ground	Claims	Basis	References
1	1, 2, 4, 6–8, 10, 12–14, 16, 18	§ 103	Zuckerberg[1]
2	1, 2, 4, 6–8, 12–14, 18	§ 103	Zuckerberg, Rothmuller,[2] and MacLaurin[3]

[1] Zuckerberg, US 7,945,653 B2, issued May 17, 2011 (Ex. 1003).

[2] Rothmuller, US 7,415,662 B2, issued Aug. 19, 2008 (Ex. 1004).

[3] MacLaurin, US 7,831,913 B2, issued Nov. 9, 2010 (Ex. 1006).

Ground	Claims	Basis	References
3	10, 16	§ 103	Zuckerberg, Rothmuller, MacLaurin, and Ortega[4]
4	1, 2, 4, 6–8, 12–14, 18	§ 103	Zuckerberg, Plotkin,[5] and MacLaurin
5	10, 16	§ 103	Zuckerberg, Plotkin, MacLaurin, and Ortega
6	1, 2, 4, 6–8, 10, 12–14, 16, 18	§ 103	Rothmuller and Matthews[6]
7	10, 16	§ 103	Rothmuller, Matthews, and Ortega

Petitioner relies on the Declaration of Dr. Sandeep Chatterjee, Ph.D. (Ex. 1002) to support its patentability challenge.

II. ANALYSIS

A. Level of Ordinary Skill in the Art

Petitioner contends that a person of ordinary skill in the art at the time of invention of the ’173 patent “would have possessed at least a bachelor’s degree in software engineering, computer science, computer engineering, or electrical engineering with at least two years of experience in software application development, including graphical user interface development (or equivalent degree or experience).” Pet. 6–7 (citing Ex. 1002 ¶¶ 12–15). Patent Owner does not address the requisite level of skill in its Preliminary Response.

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[4] Ortega, US 6,564,213 B1, issued May 13, 2003 (Ex. 1007).

[5] Plotkin, *How to Do Everything with Photoshop Elements 4.0* (Ex. 1008).

[6] Matthews, US 2006/0218503 A1, published Sept. 28, 2006 (Ex. 1009).

For purposes of this decision, we adopt Petitioner's presently undisputed definition of the level of ordinary skill in the art, as it is consistent with the level of skill in the art reflected in the prior art of record. *See Okajima v. Bourdeau*, 261 F.3d 1350, 1355 (Fed. Cir. 2001).

B. Claim Construction

In this *inter partes* review proceeding, the claims of the patent are construed using the same standard used in federal district court, including construing the claim in accordance with the ordinary and customary meaning of the claim as understood by one of ordinary skill in the art and the prosecution history pertaining to the patent. 37 C.F.R. § 42.100(b); 83 Fed. Reg. 51358 (Oct. 11, 2018) (amending the claim construction standard for trial proceedings before the Board). At this stage in the proceeding, although Petitioner presents alternative grounds of unpatentability to account for various claim interpretations Patent Owner might advance, neither party seeks express construction of any claim term. *See* Pet. 10 ("For purposes of the prior art cited herein, Petitioner does not, at this time, contend that any term requires express construction."); *id.* at 31 ("[I]n the event the Patent Owner argues that claim 1 requires display of a visually separate indicator for every tag in the list, Grounds 2–5 below establish that Zuckerberg would still render the claim obvious in view of additional references."); *see generally* Prelim. Resp.

For purposes of this decision, we interpret the challenged claims in accord with their ordinary meaning to one skilled in the art at the time of invention, in light of the teachings of the specification and the prosecution history, and do not find it necessary to provide any express claim

constructions. In reaching this conclusion we observe that the parties do not dispute the meaning of the challenged claims, and our decision to institute trial does not turn on the adoption of any particular claim construction. *See Nidec Motor Corp. v. Zhongshan Broad Ocean Motor Co. Ltd.*, 868 F.3d 1013, 1017 (Fed. Cir. 2017) (noting that "we need only construe terms 'that are in controversy, and only to the extent necessary to resolve the controversy'") (citing *Vivid Techs., Inc. v. Am. Sci. & Eng'g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999)).

C. Obviousness Grounds Based on Zuckerberg

Petitioner contends that claims 1, 2, 4, 6–8, 10, 12–14, 16, and 18 are rendered obvious by Zuckerberg alone, or in combination with MacLaurin and either of Rothmuller or Plotkin. Pet. 21–45, 49–53. Petitioner asserts that claims 10 and 16 are also rendered obvious by the combination of Zuckerberg, MacLaurin, Ortega, and either of Rothmuller or Plotkin. *Id.* at 45–49, 53–54. To support its contentions, Petitioner cites to Dr. Chatterjee's declaration testimony (Ex. 1002).

Patent Owner disagrees and asserts that the Zuckerberg grounds fail to teach or suggest "displaying a tag type indicator . . . indicative of a tag source." Prelim. Resp. 32–38. Patent Owner additionally argues that hindsight bias improperly pervades Petitioner's contention that Zuckerberg discloses "tag sources." *Id.* at 38–41.

1. Overview of the Asserted References

a. Zuckerberg

Zuckerberg discloses "systems and methods for tagging digital media"—including digital images—"in a social network environment administered by a social network server." Ex. 1003, 1:54–57. In particular, Zuckerberg explains that

> [a] user of a social network may upload digital media (e.g., a digital image) to a file (e.g., an album) on their web page thus becoming a media owner of the digital image. The media owner may select and tag a region of the image by clicking on a point in the digital image to select the region and typing appropriate text to tag the region. The media owner may select and tag multiple regions.

Id. at 1:59–65.

Figure 5 of Zuckerberg, depicting an exemplary "tag web page," is reproduced below.

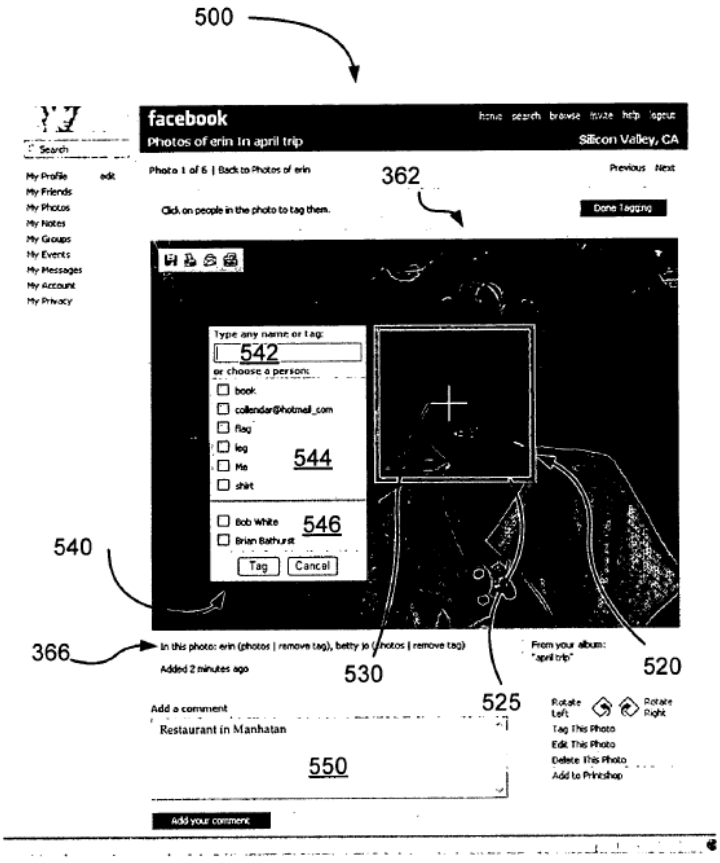


FIG. 5

As illustrated in Figure 5, once a user selects a region of a digital image to tag, auto list component 420 presents a list of likely tags to the user for association with selected region 520. Ex. 1003, 8:49–52. Zuckerberg explains that

> [t]he tag list 540 may include a text entry window 542 and a list of previously used tags. As text is entered in the text entry window 542, the list of previously used tags may be culled to include only those that match the text in some manner. In some embodiments, the list of previously used tags includes a text list 544 and a friends list 546.

Id. at 8:52–58.

b. Rothmuller

Rothmuller describes an apparatus and methods for managing digital media using tags. Ex. 1004, Abstract. More specifically, Rothmuller discloses "methods for associating ('tagging') fields of text and numeric data ('metadata') with individual objects such as images or photos, storing the objects and associated metadata as records in a relational database, and selecting, sorting, organizing and finding the objects based on their tagged metadata content." *Id.* at 1:57–62. Rothmuller further explains that

> [d]efault metadata tags can be specified, and new metadata tags can be defined and created through a tag editor by naming the tag, selecting its tag type, optionally selecting a graphical icon that represents the tag, and filling in any remaining fields or attributes that are unique to and define the tag type.

Id. at 1:63–67.

Figure 1 of Rothmuller, depicting an exemplary user interface for the disclosed photo tagging system, is reproduced below. Ex. 1004, 3:3–5.

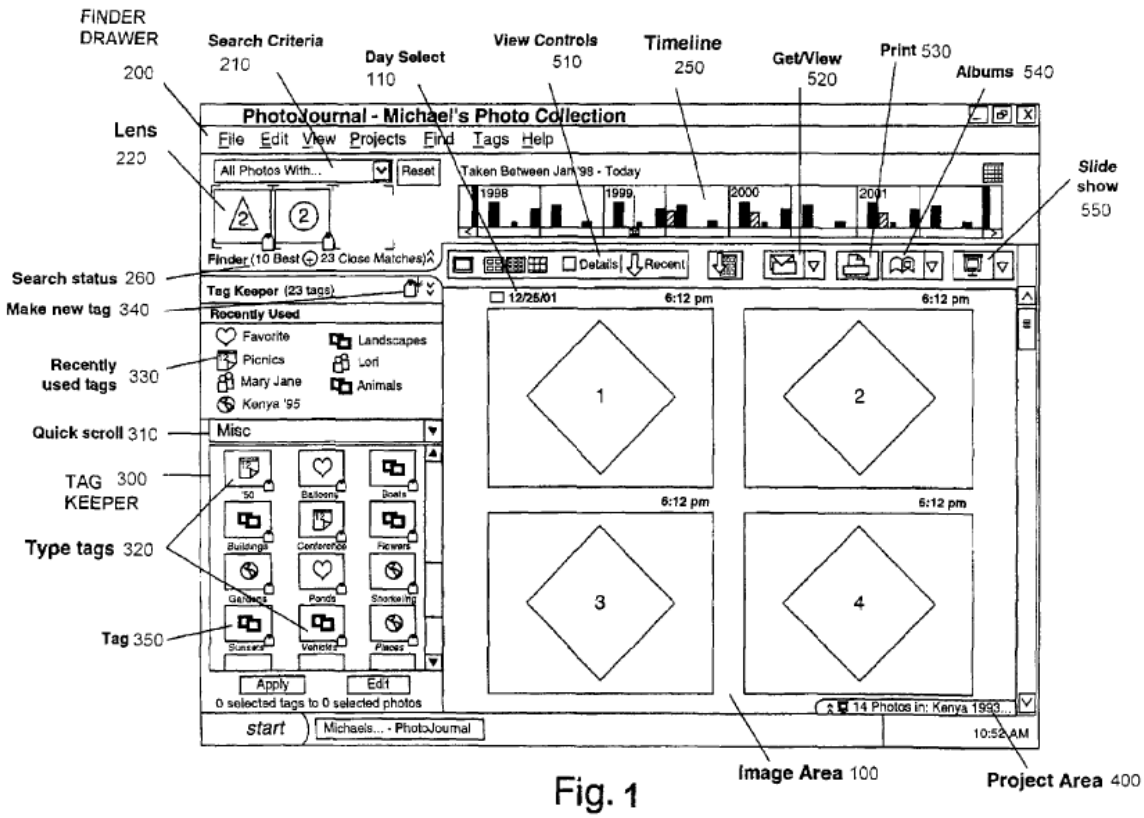


Fig. 1

As illustrated in Figure 1, Rothmuller explains that "tags 350 can be applied to photos by dragging and dropping graphical icons representing the tags onto one or more photos 1–4 that are displayed in an image area 100." *Id.* at 3:36–39.

Rothmuller discloses also that tags can be created and modified using a "tag editor." Ex. 1004, 3:51–52.

> The tag editor allows a user to specify a tag name and tag type, and to enter metadata in the form of tag attributes that can be stored in tags of the specified tag type. For convenience, tags can be divided into one or more tag categories. For example, in one embodiment tags are divided into people, events, places and miscellaneous tag categories. Tags in the different tag categories generally have different tag attributes to distinguish between themselves and tags in other tag categories.

Id. at 3:52–60.

Rothmuller incorporates by reference U.S. Provisional Patent Application No. 60/334,516, filed October 31, 2001 (Ex. 1005; "Rothmuller Provisional"). Ex. 1004, 1:14–17. Rothmuller Provisional explains that

> [t]he recent tag area keeps a set of recently used tags. In a preferred embodiment, the Favorite Tag is always maintained in this area at the top. The state of this area is preserved between Photo Journal sessions. Tags are displayed using small tag type icons and the tag name.

Ex. 1005, 68. The description of the recent tag area in Rothmuller Provisional is consistent with the "recently used tags 330" list depicted in Figure 1 of Rothmuller. As seen in Figure 1, Rothmuller discloses associating icons with tags. Ex. 1004, Fig. 1. For example, icons depicting block figures resembling people are associated with the tags for "Mary Jane" and "Lori." *Id.*

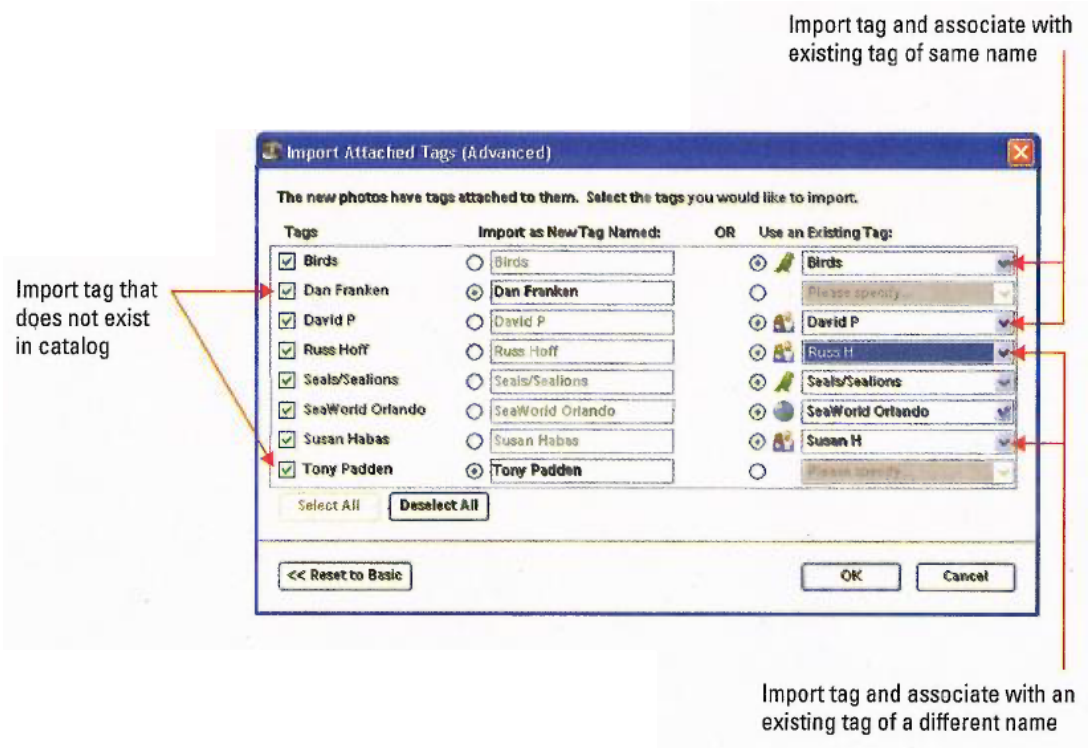
c. Plotkin

Plotkin describes the photo tagging features of Adobe Photoshop Elements, version 4, a commercial software program. Ex. 1008, xix, 321–346. Plotkin explains that in Adobe Photoshop Elements "[t]ags and collections give you ways to assign keywords to images and to group them together in virtual folders. You can also search for images by tag, collection, and other criteria." *Id.* at 322.

Plotkin discloses that "[c]ategories, subcategories, and tags form a hierarchy [in Adobe Photoshop Elements]. At the top of the heap is the category. . . . Subcategories are the-next layer. . . . Tags are at the lowest (most atomic) level, and are typically used for keywords or phrases."

Ex. 1008, 323. Plotkin further explains that although the software automatically provides several base categories, including favorites, people, places, and events, a user can create additional categories, and specify particular subcategories and tags. *Id.* at 322–323.

Plotkin discloses that each tag category has an associated icon, and that the category icon may be displayed alongside the category, as well as alongside tags falling within that category. Ex. 1008, 323, 325. For example, Plotkin includes a screenshot from Adobe Photoshop Elements, version 4, reproduced below, in which category icons are displayed next to tag.



Id. at 328. As depicted in the Adobe Photoshop Elements screenshot shown in Plotkin, the icon for the "people" category appears next to the tags for

various people, including, for example, "Russ H," and the icon for the "places" category appears next to the tag for "SeaWorld Orlando." *Id.*

d. MacLaurin

MacLaurin describes "systems and methods for tagging items"—including digital pictures—"based on user selections of items." Ex. 1006, 2:40–41, 2:2–7. Of particular relevance here, MacLaurin discloses a "light 'tagging mode'" having the following characteristics:

> display a special icon and/or text message indicating that tagging is active
>
> accumulate each key a user types into a "tag buffer"
>
> use this tag buffer to guess at likely tags
>
> display the current "best guess" tag in a textual readout associated with the window
>
> allow a user to choose between "tag guesses" using cursor arrows
>
> allow a user to choose whether to accept guesses or simply use the buffer as is
>
> if a user hits the escape key (or similar), exit tagging mode
>
> if the user hits the enter/return key (or similar), apply the items to the tag

Ex. 1006, 8:4–18.

MacLaurin teaches that "[t]he tagging system can contain both automatic tags generated by the tagging system and explicit tags from a user. By distinguishing between the two types of tags easily, a user can be alerted to their confidence level with regard to the tags." Ex. 1006, 7:48–51. More specifically, MacLaurin discloses that "if an automated tag and an explicit tag (one entered by a user) are both presented to the user, each type of tag

can be distinguished utilizing different sizes, fonts, colors, and/or symbols and the like." *Id.* at 8:19–25.

e. Ortega

Ortega describes "methods for assisting users in efficiently entering search queries." Ex. 1007, 1:5–6. In particular, Ortega teaches a method for "suggesting autocompletion strings (terms and/or phrases) to users during the query entry process, wherein the suggested strings are based on specific attributes of the particular database access system being searched." *Id.* at 1:66–2:3. Figure 2A of Ortega, depicting an exemplary user interface for use by an autocompletion client, is reproduced below. *Id.* at 5:23–25.

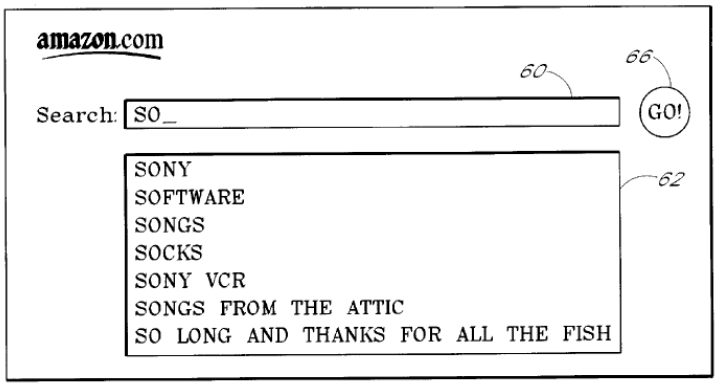


FIG. 2A

As illustrated in Figure 2A, "as the user enters a search query into a search field 60 of the Amazon.com web site (by voice, stylus, etc.), the autocompletion client displays suggested autocompletion terms and phrases in a drop-down box 62." *Id.* at 5:25–29. Ortega additionally explains that "once the user has completed a term, the autocompletion client may only display suggested phrases." *Id.* at 5:34–36.

2. Analysis

Petitioner asserts that independent claims 1, 7, and 13 are rendered obvious by Zuckerberg alone, or in combination with either Rothmuller or Plotkin, and MacLaurin.[7] Pet. 21–31, 34–35, 37, 38–45, 49–53. Because claims 7 and 13 respectively recite a "system" and "computer readable medium" for performing the method of claim 1, we, like the parties, focus our discussion on claim 1.[8]

Petitioner contends that the user interface depicted in Figure 5 of Zuckerberg discloses "[a] method of selecting a photo tag for a tagged photo" (Ex. 1001, 9:14–15), as recited in the preamble of claim 1. Pet. 21–23. In particular, Petitioner asserts that Figure 5 "instructs the user to '[c]lick on people in the photo to tag them.'" *Id.* at 21 (quoting Ex. 1001, Fig. 5). Petitioner further asserts that Figure 5 of Zuckerberg suggests selecting additional tags for a photograph that has previously been tagged. *Id.* at 22–23 (citing Ex. 1002 ¶ 73); *see also* Ex. 1003, Fig. 5 (providing a tagging interface, and indicating that "erin" and "betty jo" have already been tagged in the photograph).

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[7] Petitioner also details how each limitation of dependent claims 2, 4, 6, 8, 10, 12, 14, 16, and 18 is met by the disclosures of Zuckerberg alone, or in combination with Rothmuller or Plotkin, MacLaurin, and Ortega. *See* Pet. 31–54. At this stage of the proceeding, Patent Owner has not addressed claims 2, 4, 6, 8, 10, 12, 14, 16, and 18 individually for any of the asserted grounds. *See generally* Prelim. Resp. Accordingly, we focus our analysis on the independent claims.

[8] Because the relevant elements of claims 1, 7, and 13 are identical, and the parties argue the claims together, for readability, we provide citations only to claim 1.

Petitioner contends that the claim 1 requirement for "displaying a tag list including tags from one or more tag sources matching a search string" (Ex. 1001, 9:16–17) is satisfied by Zuckerberg's disclosure of "a 'list of previously used tags' that 'includes a text list 544 and friends list 546,'" as depicted in Figure 5. Pet. 24 (quoting Ex. 1003, 8:52–54, 8:56–58; citing *id.* at Fig. 5). According to Petitioner, Zuckerberg discloses that this tag list "'includ[es] tags . . . matching a search string': 'As text is entered in the text entry window 542, the list of previously used tags may be culled to include only those that match the text in some manner.'" Pet. 24 (quoting Ex. 1003, 8:54–56). Relying on Dr. Chatterjee, Petitioner additionally asserts that Zuckerberg discloses two tag sources: "one 'tag source' in the form of (1) a collection of predefined contacts used to populate the friends list 546, and another 'tag source' in the form of (2) a cache or collection of previously used tags to populate the text list 544." Pet. 24 (citing Ex. 1002 ¶ 75); *see also* Pet. 25–27 (citing Ex. 1002 ¶¶ 76–79); Ex. 1003, 8:58–66 (exemplifying information that may be included in the "friends list" and the "text list").

Claim 1 further calls for "displaying a tag type indicator for each tag appearing in the tag list, said tag type being indicative of a tag source associated with the tag." Ex. 1001, 9:18–20. Petitioner asserts that Zuckerberg alone, or in combination with either Rothmuller and MacLaurin or Plotkin and MacLaurin meets this claim requirement. Pet. 27–31, 38–45, 49–53.

Relying on Zuckerberg alone, Petitioner reasons that Zuckerberg's friends list and text list each includes different tag types indicative of

different tag sources. Pet. 28–29 (citing Ex. 1002 ¶¶ 82–83). According to Petitioner, the distinct names "friends list" and "text list" convey that the tags in each respective list are of different types, and the fact that the "friends list" includes tags corresponding to predefined contacts, while the "text list" includes free-form tags not necessarily associated with a person, underscores that the lists include different tag types derived from different tag sources. Pet. 28–29 (citing Ex. 1002 ¶¶ 82–83). As to the required "tag type indicator," Petitioner contends that the horizontal line separating the "friends list" and the "text list" in Zuckerberg's "tag list" meets this claim element. Pet. 30–31 (citing Ex. 1002 ¶ 84). In particular, Petitioner asserts that "[t]his line visually separates the two types of tags from one another; it indicates to the user that the tags above the line belong to a different type and originate from a different source than the ones below the line." Pet. 30 (citing Ex. 1002 ¶ 84).

Petitioner also asserts that the combination of Zuckerberg, Rothmuller, and MacLaurin teaches "displaying a tag type indicator for each tag appearing in the tag list, said tag type being indicative of a tag source associated with the tag" (Ex. 1001, 9:18–20). Pet. 38–45. Relying on the aspects of Zuckerberg discussed above, Petitioner identifies Rothmuller as teaching displaying a tag type indicator with each tag appearing in the tag list. *Id.* In particular, Petitioner points to Rothmuller's teaching that "[t]ags are displayed using small tag type icons and the tag name." *Id.* at 40–41 (quoting Ex. 1005, 68). Petitioner further asserts that an ordinarily skilled artisan would have sought to combine Zuckerberg and Rothmuller based on MacLaurin's teachings that "each type of tag can be distinguished utilizing

different sizes, fonts, colors, and/or symbols and the like" and "[b]y distinguishing between the two types of tags easily, a user can be alerted to their confidence level with regard to the tags." Pet. 42–43 (quoting Ex. 1006, 8:19–23, 7:48–51). Petitioner reasons that the proposed combination would have resulted in an improved user experience "by allowing the user to more quickly identify an appropriate tag among the listed options," and "greater flexibility in the organization of the list of tag suggestions." Pet. 44 (citing Ex. 1002 ¶¶ 100, 102–103). Petitioner also contends that because of the similarities between the tag categories taught by Rothmuller and tag types of Zuckerberg, "[o]ne of ordinary skill would therefore have found Rothmuller's teachings to be directly applicable and readily combinable with Zuckerberg." Pet. 44 (citing Ex. 1002 ¶ 101).

Petitioner's arguments concerning the combination of Zuckerberg, Plotkin, and MacLaurin closely mirror those asserted as to the aforementioned combination of Zuckerberg, Rothmuller, and MacLaurin. *Compare* Pet. 49–53 *with id.* at 38–48. Specifically, Petitioner asserts that Plotkin discloses an embodiment in which a tag category icon is shown next to each tag in a tag list. Pet. 51 (citing Ex. 1008, 328). Petitioner contends that the same "motivations for adapting Zuckerberg's tag list to include tag type indicators" discussed above concerning the combination of Zuckerberg with Rothmuller and MacLaurin apply to the combination of Zuckerberg, Plotkin, and MacLaurin. Pet. 52. Petitioner further contends that "[g]iven the popularity of the Adobe product [described by Plotkin], market forces, in addition to the motivations already discussed, would have further encouraged a person of ordinary skill to adapt Plotkin's tag type indicators

to the tag list in Zuckerberg." *Id.* at 53 (citing Ex. 1002 ¶ 113). Petitioner also argues that Plotkin's disclosure of using tag type indicators "in the context of importing tags into the system . . . confirms that the advantages of using tag type indicators in a tag list (e.g., the ability to quickly distinguish tags based on their tag type) are applicable to a broad range of user interfaces." *Id.* (citing Ex. 1002 ¶ 114).

Based on our review of the current record, with the exception of Petitioner's assertions concerning whether "Zuckerberg discloses and renders obvious a 'tag type being indicative of a tag source associated with the tag'" (Pet. 29), we agree at this juncture with Petitioner's characterization of the teachings of Zuckerberg, Rothmuller, Plotkin, and MacLaurin, as well as with Petitioner's assertions as to the reasonable inferences an ordinary artisan would have made from those references. We address Patent Owner's arguments, including the adequacy of Petitioner's unpatentability assertions based on Zuckerberg alone, below.

Patent Owner asserts that Petitioner's obviousness arguments relying on Zuckerberg cannot stand because Petitioner fails to establish that the tags in Zuckerberg's "friends list" and "text list" are from different tag sources. Prelim. Resp. 38–41. We do not agree. The challenged claims refer to tag sources in two instances. In particular, the claims recite that the tag list must include "tags from one or more tag sources" (*see, e.g.*, Ex. 1001, 9:16–17), and that "tag type" must be "indicative of a tag source associated with the

tag (*see, e.g.*, *id.* at 9:18–20)."[9] As Petitioner explains (Pet. 24–27), Zuckerberg teaches that the "text list" and "friends list" are populated with different information (Ex. 1003, 8:58–66). In particular, Zuckerberg exemplifies "contacts within the social network environment," "approved contacts," and other "selected" information pertaining to a predefined contact as populating the "friends list." Ex. 1003, 8:62–66. In contrast, Zuckerberg indicates that the "text list" may include "text strings" unrelated to any predefined contact, such as "words" or "objects." *Id.* at 8:58–62.

In view of Zuckerberg's teachings, Petitioner persuasively asserts, relying on Dr. Chatterjee's testimony, that an ordinarily skilled artisan would have understood that "any tag presented in the friends list 546 would have originated from a list or collection of contacts used by the system to populate friends list 546," and that "the Zuckerberg system could not identify particular tags for friends list 546, and visually present them as shown in Figure 5, unless those tags were part of a list or collection of known contacts." Pet. 25 (citing Ex. 1002 ¶ 76). Petitioner's parallel contention, again based on Dr. Chatterjee's testimony, that an ordinarily

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[9] As Petitioner points out, it is unclear whether the challenged claims intend to refer to "said tag type" indicating a tag source as written, or "said tag type indicator" indicating a tag source, as the claims include an antecedent basis for "said tag type indicator" but not for "said tag type." Pet. 29, n. 7. Nevertheless, we also agree with Petitioner that, for purposes of this Decision, in view of Petitioner's mapping of the asserted art to the challenged claims, either understanding of the claims leads to the same result. *Id.* To the extent Patent Owner contends that the interpretation of "said tag type indicating" bears on our patentability analysis, Patent Owner is requested to further brief the issue during trial.

skilled artisan would have appreciated that "text list 544 represents a distinct tag source, i.e., a cache of 'previously used tags' (Zuckerberg, 8:52-58) that is separate from the list of contacts used to populate the friends list 546" is also persuasive. *Id.* (citing Ex. 1002 ¶ 77). Accordingly, based on the current record, we determine that Petitioner has adequately shown, for purposes of this Decision, that Zuckerberg teaches or suggests two distinct "tag sources."

Patent Owner argues also that the asserted grounds of unpatentability based on Zuckerberg fail to teach or suggest displaying "a tag type indicator for each tag appearing in the tag list, said tag type being indicative of a tag source associated with the tag" (*see, e.g.*, Ex. 1001, 9:18–20) as required by the challenged independent claims. Prelim. Resp. 32–38. Foundational to Patent Owner's argument is the contention, with which we agree, that Petitioner has not established a reasonable likelihood of showing that Zuckerberg discloses or suggests this claim element. *Id.* at 33–37. At best, the horizontal line separating Zuckerberg's "friend list" and "text list" reinforces our above determination that the "friends list" and "text list" are populated with tags from different sources. That line, however, is not "*indicative* of a tag source associated" with the tags in the lists (*see, e.g.*, Ex. 1001, 9:18–20 (emphasis added)). Although a person of ordinary skill may be capable of inferring the source of the tags in the lists on either side of Zuckerberg's horizontal line based in the information in those lists, Petitioner does not make that argument, and the horizontal line itself is not "indicative of a tag source associated with the tag" (*id.*), as required by the challenged claims. The line does not convey any information about the lists

it separates beyond the fact that they are separate. Nor can the horizontal line be said to satisfy the requirement for displaying "a tag type indicator for *each* tag" appearing in the overall tag list (*id.*). The line simply separates two lists; it does not indicate tag type, and it cannot be said to be associated with any particular tag in the overall tag list.

Even though we agree with Patent Owner that Petitioner has not carried its burden with regard to its unpatentability assertion based on Zuckerberg alone, we nevertheless conclude that Petitioner has demonstrated a reasonable likelihood of prevailing on its challenges based on Zuckerberg in combination with either of Rothmuller or Plotkin, and MacLaurin. Contrary to Patent Owner's assertion that Petitioner's obviousness analysis is conclusory and incomplete (Prelim. Resp. 36–38), as set forth above, Petitioner provides a detailed explanation of the disclosures of Zuckerberg, Rothmuller, Plotkin, and MacLaurin, and explains why an ordinarily skilled artisan would have sought to combine the teachings of those references to arrive at the claimed invention. *See* Pet. 21–31, 38–45, 49–53. Indeed, far from "failing to present any rationale for why one of ordinary skill would depart from Zuckerberg's express disclosure of displaying just a dividing line instead of 'displaying a tag type indicator . . . indicative of a tag source,' as claimed" (Prelim. Resp. 36 (quoting Ex. 1001, 9:18–20), Petitioner identifies several reasons why an ordinarily skilled artisan would have sought to combine Zuckerberg, Rothmuller or Plotkin, and MacLaurin to arrive at the claimed invention. First, based on the preliminary record before us, we agree with Petitioner that

> MacLaurin provides an express motivation by explaining that visual indicators allow tags to be easily distinguished based on their tag type. (MacLaurin, 7:49-53, 8:19-23.) And in the context of Zuckerberg, this would have improved the tagging process by allowing the user to more quickly identify an appropriate tag from among the listed options.

Pet. 43–44. Second, as Petitioner argues, displaying a tag type indicator indicative of the tag source for each tag "would have allowed for greater flexibility in the organization of the list of tag suggestions." Pet. 44 (citing Ex. 1002 ¶ 102), 52 (citing Ex. 1002 ¶¶ 99–104, 112). Third, with particular regard to the combination of Zuckerberg, Plotkin, and Rothmuller, based on the limited record before us, we agree with Petitioner that, in view of the popularity of the Adobe Photoshop Elements, version 4 product described by Plotkin, "market forces . . . would have further encouraged a person of ordinary skill to adapt Plotkin's tag type indicators to the tag list in Zuckerberg. Pet 53 (citing Ex. 1002 ¶ 113).

Patent Owner's assertion that "Petitioners do not contend that Rothmuller or Plotkin discloses or renders obvious that their alleged 'indicator[s]' are 'indicative of a tag source'" (Prelim. Resp. 37) is similarly unavailing, as it does not address Petitioner's unpatentability arguments. Petitioner does not rely on any one of Zuckerberg, Rothmuller, Plotkin, or MacLaurin in isolation, but rather, argues that the asserted combinations of those references teach or suggest "displaying a tag type indicator . . . indicative of a tag source" (*see, e.g.*, Ex. 1001, 9:18–20). Pet. 38–45, 49–53. In this regard, Petitioner explicitly describes an implementation of the proposed combination of Zuckerberg, Rothmuller, and MacLaurin in which each tag in text list 544 of Zuckerberg would display its own tag type icon,

as taught by Rothmuller, and each tag in friends list 546 of Zuckerberg would display a different tag type icon, in order to achieve the benefits described by MacLaurin, and for the additional reasons set forth in the Petition and discussed above. Pet. 43 (citing Ex. 1002 ¶ 99). As to the combination of Zuckerberg, Plotkin, and MacLaurin, Petitioner likewise explains that Plotkin discloses displaying a tag type icon alongside each tag included in a tag list (Pet. 51), and that "the combination of Zuckerberg with Plotkin and MacLaurin would have predictably resulted in the tag list of Zuckerberg in which each tag is visually distinguished through a separate graphical icon accompanying the tag, as disclosed in Plotkin" (*id.* at 52 (citing Ex. 1002 ¶¶ 98, 111)). Accordingly, we are satisfied, for purposes of this Decision, that Petitioner has demonstrated a reasonable likelihood in prevailing on its assertion that the combination of Zuckerberg, Rothmuller or Plotkin, and MacLaurin teaches or suggests "displaying a tag type indicator . . . indicative of a tag source" (*see, e.g.*, Ex. 1001, 9:18–20).

Based on the foregoing, we conclude that Petitioner has established a reasonable likelihood that it would prevail on its assertion that claim 1 of the '173 patent is unpatentable based on the combination of Zuckerberg, Rothmuller, and MacLaurin, as well as based on the combination of Zuckerberg, Plotkin, and MacLaurin.

D. Obviousness Grounds Based on Rothmuller

Petitioner contends that claims 1, 2, 4, 6–8, 10, 12–14, 16, and 18 are rendered obvious by the combination of Rothmuller and Matthews, and that claims 10 and 16 are additionally rendered obvious by the combination of

Rothmuller, Matthews, and Ortega. Pet. 54–75. To support its contentions, Petitioner cites to Dr. Chatterjee's declaration testimony (Ex. 1002).

Patent Owner disagrees and asserts that the Rothmuller grounds fail to teach or suggest "tag sources," as required by the challenged claims. Prelim. Resp. 42–44.

1. Overview of Matthews

Matthews describes "methods and system for a search box and search capabilities in a graphical user interface of a program launch menu for an operating system." Ex. 1009 ¶ 2. Figure 5 of Matthews, depicting an exemplary program launch menu, is reproduced below. *Id.* ¶ 25.

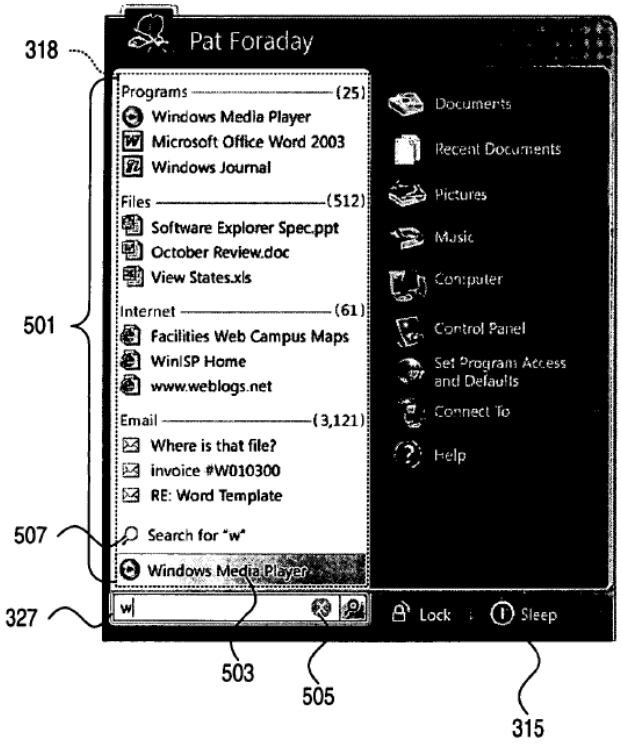

FIG. 5

As illustrated in Figure 5, "the user can type text into search box 327 to search for Start menu items. Upon entering text in search box 327, Start menu 315 automatically switches to a Search Results view 501." *Id.* ¶ 87. In particular, Matthews explains that "from search box 327, a user can perform a character by character search across the programs, user files, Internet links, and communications on his or her system. As the user enters text in the search box 327, the computer system searches for the entered text." *Id.*

2. Analysis

Petitioner asserts that independent claims 1, 7, and 13 are rendered obvious by Rothmuller in combination with Matthews.[10] Pet. 54–68. As with the grounds based on Zuckerberg, given the similarities between the independent claims, the parties focus their arguments on claim 1, and we follow suit.[11]

Petitioner contends that Rothmuller teaches "[a] method of selecting a photo tag for a tagged photo" (Ex. 1001, 9:14–15), as recited in the preamble of claim 1. Pet. 54–55. Specifically, Petitioner asserts that Rothmuller

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[10] Petitioner also details how each limitation of dependent claims 2, 4, 6, 8, 10, 12, 14, 16, and 18 is met by the disclosures of Rothmuller, Matthews, and, as to claims 10 and 16, Ortega. *See* Pet. 68–75. At this stage of the proceeding, Patent Owner has not addressed claims 2, 4, 6, 8, 10, 12, 14, 16, and 18 individually for any of the asserted grounds. *See generally* Prelim. Resp. Accordingly, we focus our analysis on the independent claims.

[11] Because the relevant elements of claims 1, 7, and 13 are identical, and the parties argue the claims together, for readability, we again provide citations only to claim 1.

discloses a user interface for tagging digital photographs with multiple tags, and suggests reasons for applying additional tags to a photograph that has already been tagged. *Id.* (citing Ex. 1002 ¶¶ 167–169; Ex. 1004, 1:55–62, 3:20–21, 3:36–42, 4:42–45, 4:62–5:8, Fig. 2).

Petitioner also contends that the combination of Rothmuller and Matthews teaches the claim 1 requirement for "displaying a tag list including tags from one or more tag sources matching a search string" (Ex. 1001, 9:16–17). Pet. 55–65. For example, Petitioner points to Rothmuller's teaching that tags listed in the "recent tag area" "are displayed using small tag type icons and the tag name" (Ex. 1005, 68) as meeting the claim requirement for "displaying a tag list including tags from one or more tag sources" (Ex. 1001, 9:16–17). Pet. 56. In support of its position, relying on Dr. Chatterjee, Petitioner asserts that "[t]he 'tag source' in Rothmuller takes the form of a stored collection of tags corresponding to a particular tag 'category' or tag 'type.'" Pet. 57 (citing Ex. 1002 ¶ 173).

As to the requirement that the tag list must include tags "matching a search string" (Ex. 1001, 9:16–17), Petitioner asserts that the combination of Rothmuller and Matthews meets this claim element. Pet. 59–65. According to Petitioner, Matthews teaches that once a user begins typing in the search field region of the disclosed start menu, the start menu "transitions into a search results view that displays items matching the user-entered text." Pet. 61 (citing Ex. 1009 ¶¶ 53, 87). Relying on Dr. Chatterjee, Petitioner further contends that an ordinarily skilled artisan would have sought to "adapt the Rothmuller user interface to include a search field near the 'Recently Used' tags that allows the user to type a search string." Pet 62

(citing Ex. 1002 ¶¶ 189, 192). As envisioned by Petitioner, the combination of Rothmuller and Matthews suggests a user interface in which "[o]nce the user starts typing into the search field, the 'Recently Used' tag list in Rothmuller transforms into a visually similar list of tags matching the user's search string." Pet. 63 (citing Ex. 1009 ¶ 53).

Petitioner provides several reasons why an ordinarily skilled artisan would have sought to combine Rothmuller and Matthews. For example, according to Petitioner, "[t]he addition of a search box to the Rothmuller user interface is merely an implementation detail that would have been well within the capabilities of a person of ordinary skill, and a person of ordinary skill would have had every expectation that the combination would be successful." Pet. 63–64 (citing Ex. 1002 ¶ 192). In addition, reasons Petitioner, "[o]ne of ordinary skill would have been motivated to combine to more efficiently use screen space, while simultaneously facilitating access to desired tags by enabling direct user searches." Pet. 64 (citing Ex. 1002 ¶¶ 194–196). Relying on Dr. Chatterjee, Petitioner explains that an ordinarily skilled artisan would have found Matthew's search technique "particularly helpful" in the context of Rothmuller, because the Rothmuller user interface "is already crowded," and, "[b]y transitioning the 'Recently Used' list into a search result listing, screen real estate is more effectively used, while advantageously adding to Rothmuller the ability to directly search for desired tags." Pet. 64 (citing Ex. 1002 ¶ 194).

Claim 1 further calls for "displaying a tag type indicator for each tag appearing in the tag list, said tag type being indicative of a tag source associated with the tag." Ex. 1001, 9:18–20. For the same reasons set forth

in Part II.C.2., above, Petitioner contends that Rothmuller's disclosure of displaying a tag type icon next to each tag in the recent tag list satisfies the claim requirement for "displaying a tag type indicator for each tag appearing in the tag list" (Ex. 1001, 9:18–19). Pet. 65–66. As to the requirement "said tag type being indicative of a tag source associated with the tag" (Ex. 1001, 9:19–20), echoing its arguments regarding Rothmuller's disclosure of one or more "tag sources," set forth above, Petitioner asserts that "the 'tag type' represented by each 'tag type icon' [in Rothmuller] is 'indicative of a tag source associated with the tag.'" Pet. 67 (citing Ex. 1002 ¶¶ 200, 202).

Based on our review of the current record, we agree with Petitioner's characterization of the teachings of Rothmuller and Matthews, as well as Petitioner's assertions as to the reasonable inferences an ordinary artisan would have made from those references. We address Patent Owner's arguments below.

Patent Owner contends that Petitioner "improperly rel[ies] on conclusory statements and hindsight bias to assert that '[t]he 'tag source[s]' in Rothmuller take[] the form of a stored collection of tags corresponding to a particular tag 'category' or tag 'type.'" Prelim. Resp. 42. We do not agree with Patent Owner's assessment. As Petitioner explains, Rothmuller discloses that "[e]very tag has an associated type, and each tag type belongs to one of four categories." Pet. 57 (quoting Ex. 1005, 62) (emphases omitted). Accordingly, based on the limited record before us, and for purposes of this Decision, we agree with Petitioner that each of Rothmuller's tag categories "discloses and suggests a corresponding 'tag source' because it defines a collection of tags stored in the Rothmuller system, from which

individual tags can be sourced and applied to photos." Pet. 57 (citing Ex. 1002 ¶¶ 177–178). We likewise agree with Petitioner that each of Rothmuller's tag types

> separately discloses and suggests a corresponding "tag source" because, like the global "categories" discussed above, each type also defines a collection of tags stored in the Rothmuller system from which individual tags can be sourced and applied to photos. And every tag in the Rothmuller system, including the tags shown in the "Recently Used" list, must also come from a particular type.

Pet. 58 (citing Ex. 1002 ¶¶ 174–176; Ex. 1005, 62). Accordingly, based on the current record, we determine that Petitioner has adequately shown, for purposes of this Decision, that Rothmuller teaches or suggests multiple distinct "tag sources."

In view of the foregoing, therefore, we conclude that Petitioner has established a reasonable likelihood that it would prevail on its assertion that claim 1 of the '173 patent is unpatentable based on the combination of Rothmuller and Matthews.

E. Patent Owner's Request for Discretionary Denial

Patent Owner argues that the Petition should be denied under either 35 U.S.C. § 325(d) or 35 U.S.C. § 314(a) because it "is redundant of" the petition in the '528 IPR. Prelim. Resp. 27. In particular, Patent Owner asserts that the instant Petition "challenges the same claims of the same patent using the same arguments largely based on the same alleged prior art" as the petition in the '528 IPR. *Id.*

We do not agree that the referenced petitions are redundant or that discretionary denial is warranted. Although there is overlap between the

individual references asserted, the two petitions concern different prior art combinations and advance persuasive—and distinct—unpatentability arguments. For example, Zuckerberg is central to Petitioner's arguments as to five out of the seven grounds of unpatentability asserted here, including the sole single reference obviousness ground, but is not asserted, even as a secondary reference, in the '528 IPR. *Compare* Pet. 4–5 *with* '528 IPR, Paper 2, 4–5. Similarly, Matthews, which is asserted in each of the two remaining grounds at issue in this proceeding, is excluded from the '528 IPR. *Compare* Pet. 4–5 *with* '528 IPR, Paper 2, 4–5. In addition, even though both petitions assert MacLaurin, each petition utilizes MacLaurin for a different purpose. For example, MacLaurin is identified only as supplying a reason to combine Zuckerberg with each of Rothmuller and Plotkin in the instant Petition, but features as the primary reference in the '528 IPR, and is the basis for the lone single-reference obviousness ground presented in that case. *Compare* Pet. 4–5 *with* '528 IPR, Paper 2, 4–5. Moreover, contrary to Patent Owner's characterization, Petitioner does not "treat Zuckerberg and MacLaurin interchangeably." Prelim. Resp. 29. Quite the opposite, Petitioner relies on MacLaurin to supply the motivation to combine Zuckerberg with each of Rothmuller and Plotkin, and explains that MacLaurin teaches what Zuckerberg does not: using "sizes, fonts, colors, and/or symbols" to distinguish "each type of tag" presented to a user. Pet. 42–43; *see also* '528 IPR, Paper 2, 35–40. Thus, although MacLaurin is asserted in both petitions, we do not consider the petitions redundant.

Given the distinct combinations presented and arguments made in two petitions, the fact that they were filed just four days apart (Paper 5, 1;

’528 IPR, Paper 6, 1), and the absence of any assertion that any of the cited references were substantively addressed during prosecution (*see generally* Prelim. Resp.), we cannot agree with Patent Owner that “the same or substantially the same prior art or arguments previously were presented to the Office.” 35 U.S.C. § 325(d). Nor do we discern reason to deny institution based on the *General Plastic* factors. *See General Plastic Indus. Co., Ltd. v. Canon Kabushiki Kaisha*, Case IPR2016-01357, slip op. at 15–16 (PTAB Sept. 6, 2017) (Paper 19) (precedential). The timing of the two petitions and the substantive differences between them allay any concerns relating to improper delay, improper reliance on Patent Owner’s filings or the Board’s decisions, or unnecessary strain on the Board’s resources that are the focus of the *General Plastic* analysis. *See id.*

Although it issued subsequent to the parties’ filings here, and less than one month prior to the deadline for issuance of this Decision, we are mindful of the guidance concerning parallel petitions challenging the same patent provided in recently issued Office Trial Practice Guide, July 2019 Update. Office Patent Trial Practice Guide, July 2019 Update, 84 Fed. Reg. 33,925 (July 16, 2019) (“Trial Practice Guide Update”), https://www.uspto.gov/sites/default/files/documents/trial-practice-guide-update3.pdf. Even though it explains that parallel petitions challenging the same patent are generally disfavored, the Trial Practice Guide Update nevertheless recognizes that there may be circumstances in which more than one petition may be necessary, and that the panel has discretion to review whether fairness warrants allowing parallel petitions by a single petitioner. Trial Practice Guide Update, 26. Here, Patent Owner has asserted claims of

the ’173 patent against Petitioner in related district court litigation (Pet. 2; Paper 4, 2), and Petitioner provides alternative unpatentability arguments to account for different claim interpretations that may be advanced by Patent Owner or adopted by the Board. *See, e.g.*, Pet. 11 (“Because IPR proceedings are governed by the same claim construction standard as district courts (and the district court has provided no claim construction rulings), uncertainty exists as to how certain limitations may be interpreted.”); *id.* at 31 (“[I]n the event the Patent Owner argues that claim 1 requires display of a visually separate indicator for every tag in the list, Grounds 2–5 below establish that Zuckerberg would still render the claim obvious in view of additional references.”). Accordingly, because insufficient time remains in this proceeding to request, receive, and evaluate additional briefing as prescribed by the new guidance concerning parallel petitions, and in view of the strength of the arguments made in each petition, the substantive differences between them, the circumstances in the related district court litigation, and the fact that Petitioner provides different unpatentability arguments to account for different claim interpretations, we decline Patent Owner’s request for discretionary denial of the Petition.

III. CONCLUSION

For the foregoing reasons, we determine that the Petition and evidence in this record at this stage establish that there is a reasonable likelihood that Petitioner would prevail with respect to at least one of the claims challenged in the Petition. We therefore grant the Petition and institute trial as to all challenged claims on all grounds stated in the Petition. At this juncture, we

have not made a final determination with respect to the patentability of the challenged claims, nor with respect to claim construction.

IV. ORDER

Accordingly, it is hereby:

ORDERED that *inter partes* review of claims 1, 2, 4, 6–8, 10, 12–14, 16, and 18 of the '173 patent is instituted on all grounds in the Petition; and

FURTHER ORDERED that pursuant to 35 U.S.C. § 314(c) and 37 C.F.R. § 42.4, notice is hereby given of the institution of a trial; the trial will commence on the entry date of this decision.

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