

Petition for *Inter Partes* Review of
U.S. Patent No. 9,032,039 B2

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

META PLATFORMS, INC.
Petitioner

v.

MOBILE DATA TECHNOLOGIES, INC.,
Patent Owner

Case IPR2024-00248
U.S. Patent No. 9,032,039 B2
Issue Date: April 11, 2017

Title: METHOD, APPARATUS AND SYSTEM FOR MANAGEMENT OF
INFORMATION CONTENT FOR ENHANCED ACCESSIBILITY OVER
WIRELESS COMMUNICATION NETWORKS

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OF U.S. PATENT NO. 9,032,039 B2**

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List of Exhibits

Exhibit No.	Description of Document
1001	U.S. Patent No. 9,032,039 B2 to David Walker Harper et al. (filed September 11, 2014, issued May 12, 2015) (“’039” or “’039 patent”)
1002	Declaration of Vijay K. Madiseti, Ph.D. (“Madiseti”)
1003	Excerpts from Alan Neibauer, <i>How to Do Everything With Yahoo!</i> (2000) (“Neibauer”)
1004	<i>RESERVED</i>
1005	U.S. Patent No. 7,574,486 B1 to Yin Cheng et al. (filed November 8, 2000, issued August 11, 2009) (“Cheng”)
1006	U.S. Patent No. 6,434,403 B1 to Michiel R. Ausems et al. (filed February 19, 1999, issued August 13, 2002) (“Ausems”)
1007-1009	<i>RESERVED</i>
1010	U.S. Patent No. 6,487,583 B1 to Jamey Harvey et al. (filed February 25, 2000, issued November 26, 2002) (“Harvey”)
1011	U.S. Patent Application Publication No. 2001/0015759 A1 to Robert Francis Squibbs (filed February 21, 2002, published August 23, 2001) (“Squibbs”)
1012	Excerpts from Uwe Hansmann et al., <i>Pervasive Computing Handbook</i> (2001) (“Hansmann”)
1013	Excerpts from David Fox & Troy Downing, <i>HTML Web Publisher’s Construction Kit</i> (1995) (“Fox”)
1014-1016	<i>RESERVED</i>

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Exhibit No.	Description of Document
1017	U.S. Patent No. 6,332,127 B1 to Daniel Quinto Bandera et al. (filed January 28, 1999, issued December 18, 2001) (“Bandera”)
1018-1020	<i>RESERVED</i>
1021	Excerpts from <i>Microsoft Computer Dictionary</i> (5th ed 2002)
1022	File history of U.S. Patent No. 9,032,039 B2
1023	<i>RESERVED</i>
1024	Excerpts of file history of <i>Inter Partes</i> Reexamination of U.S. Patent No. 8,135,801 B2
1025	Joint Claim Construction Statement, Dkt. 51, <i>Mobile Data Technologies LLC v. Meta Platforms, Inc.</i> , Case No.7:22-cv-00244-ADA-DTG (W.D. Tex. filed September 13, 2023)
1026	Declaration of Sylvia D. Hall-Ellis, Ph.D. (“Hall-Ellis”)
1027	Proof of Service of Complaint

I. MANDATORY NOTICES UNDER §42.8(A)(1)

A. Real Party-In-Interest under §42.8.(b)(1)

Meta Platforms, Inc. is the real party-in-interest to this IPR petition.

B. Related Matters under §42.8(b)(2)

The '039 patent is the subject of pending litigation involving Petitioner:
Mobile Data Technologies LLC v. Meta Platforms, Inc., Case No.7:22-cv-00244-
ADA-DTG (W.D. Tex.). Petitioner was served on December 6, 2022. (EX1027.)

C. Lead and Back-Up Counsel under §42.8(b)(3)

Petitioner provides the following designation of counsel.

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D. Service Information

This Petition is being served by Federal Express to the attorney of record for the '039 patent, 31825 - RYAN, MASON & LEWIS, LLP, 48 South Service Road, Suite 100, Melville, NY 11747. Petitioner consents to electronic service at the addresses provided above for lead and back-up counsel.

II. FEE PAYMENT

Petitioner requests review of 5 claims, with a \$41,500 payment.

**III. REQUIREMENTS UNDER §§ 42.104 AND 42.108 AND
CONSIDERATIONS UNDER §§ 314(A) AND 325(D)**

A. Grounds for Standing

Petitioner certifies that the '039 patent is available for IPR and that Petitioner is not barred or otherwise estopped.

**B. Identification of Challenge and Statement of Precise Relief
Requested**

Petitioner requests IPR institution based on:

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Ground	Claims	Basis for Challenge under §103
1	19-20, 22-23	Neibauer (EX1003), Cheng (EX1005), Squibbs (EX1011)
2	21	Ground 1 Prior Art + Bandera (EX1017)
3	19-20, 22-23	Ground 1 Prior Art + Harvey (EX1010)
4	21	Ground 2 Prior Art + Harvey

Submitted with this Petition is the Declaration of Vijay K. Madiseti (**EX1002**) (“Madiseti”), a qualified technical expert. (EX1002, ¶¶1-11, Ex. A.)

C. Considerations Under §§ 314(a) and 325(d)

§314(a): The *General Plastic* factors are not relevant as this is the first and only IPR petition filed by Petitioner with respect to the ’039 patent.

Nor do the *Fintiv* factors support discretionary denial under §314(a). The pending litigation against Petitioner is in relatively early stages, with no substantive discovery having taken place to date. Nevertheless, to allay concerns over duplication of efforts, Petitioner represents that, in the event of institution, it will not pursue in litigation any invalidity defense that was or could have been raised in IPR.

§325(d): The two-part *Advanced Bionics* framework considers: **(1)** whether the same or substantially the same art was previously presented to the Office and if so **(2)** whether Petitioner has demonstrated that the Examiner erred in a manner material to the patentability of challenged claims. *Advanced Bionics* does not apply

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to Ausems (**EX1006**) and Harvey (**EX1010**), as these references were not considered during prosecution.

But three relied-on references were considered during prosecution – Neibauer (**EX1003**), Cheng (**EX1005**) and Squibbs (**EX1011**). But the sole mention of these references was their inclusion on Information Disclosure Statements filed by the Applicants that were considered by the Examiner. (EX1022, 00170 & 00186 (excerpts of Neibauer), 00199 (Cheng), 00312 (Squibbs).) These references were among hundreds of other prior art references cited during prosecution.

Petitioner respectfully submits that the Examiner’s consideration of these references does not raise § 325(d) issues in light of the prosecution history. The initial Office Action rejected the pending claims (1-23) as obvious over U.S. Patent Application Pub. No. 2002/0060246 A1 to Venkata Gobburu in view of U.S. Patent No. 6,594,347 B1 to Gary Calder. (EX1022, 00158-00166.) The Examiner did not cite Neibauer, Cheng, or Squibbs in any rejections.

The Examiner subsequently conducted an interview in which the applicants argued (and the Examiner apparently agreed) that Gobburu failed to teach capturing content at a mobile device. (EX1022, 00224.) But this feature is not recited in the challenged claims (19-23). The applicants also indicated that they would amend the claims in an attempt to overcome the rejections. (*Id.*)

The applicants subsequently amended their independent claims; with respect to claims 19 and 23 (the two independent claims challenged here), they were amended to recite that the claimed application-based information channel was “**previously established,**” and that it permitted “**interaction between a user of the mobile device and one or more additional users.**” (EX1022, 00230-00231.) They also amended these independent claims to require inserting “**other content from at least one of the additional users into the previously established application-based information channel.**” (*Id.*) The applicants further argued that, notwithstanding the amendments, the Examiner had already conceded that Gobburu failed to disclose “providing the content and determined information to at least one server for insertion into a specified application-based information channel,” as recited in the original claims, and that Calder did not remedy this deficiency. (EX1022, 00233-00234.)

The Examiner subsequently issued a Notice of Allowance with respect to all claims. (EX1022, 00300-00307.) In his statement of reasons for allowance, the Examiner identified Gobburu as the closest prior art, but stated that it did not teach or suggest all of the limitations of the independent claims, including the amendments mentioned above. (EX1022, 00305.)

Petitioner respectfully submits that the Examiner materially erred in failing to rely on Neibauer, Cheng and Squibbs to reject the challenged claims. These

references confirm that all limitations of the claims were obvious in view of the prior art – including the limitations that the Examiner found missing from Gobburu, as detailed in **Part VI** below. In fact, the PTO cited and relied on both Neibauer and Cheng in a reexamination of a patent in the same family (U.S. Patent No. 8,135,801 B1), which resulted in cancellation of all claims. (EX1024, 004 (PTAB decision affirming prior art rejections and listing Cheng and Neibauer), 0018-0019 (Federal Circuit affirmance).) The claimed recitation of a previously established application-based information channel and inserting content into that channel, the subject of the applicants' amendment, was plainly disclosed by the features of Neibauer including its photo sharing feature as detailed below. (EX1002, ¶¶88-90.) The claimed information associated with at least one wireless networking functionality, another feature cited in the Examiner's statement of reasons for allowance, was disclosed and suggested by Neibauer and Squibbs, as also detailed below. (EX1002, ¶¶109-121.) The present Petition thus presents grounds of unpatentability stronger and more compelling than those identified by the Examiner during prosecution.

IV. OVERVIEW OF THE PATENT

A. Level of Ordinary Skill

A person of ordinary skill would have possessed a bachelor's degree in electrical engineering, computer science, or similar field, with two years of experience in developing and implementing network-based computer systems that

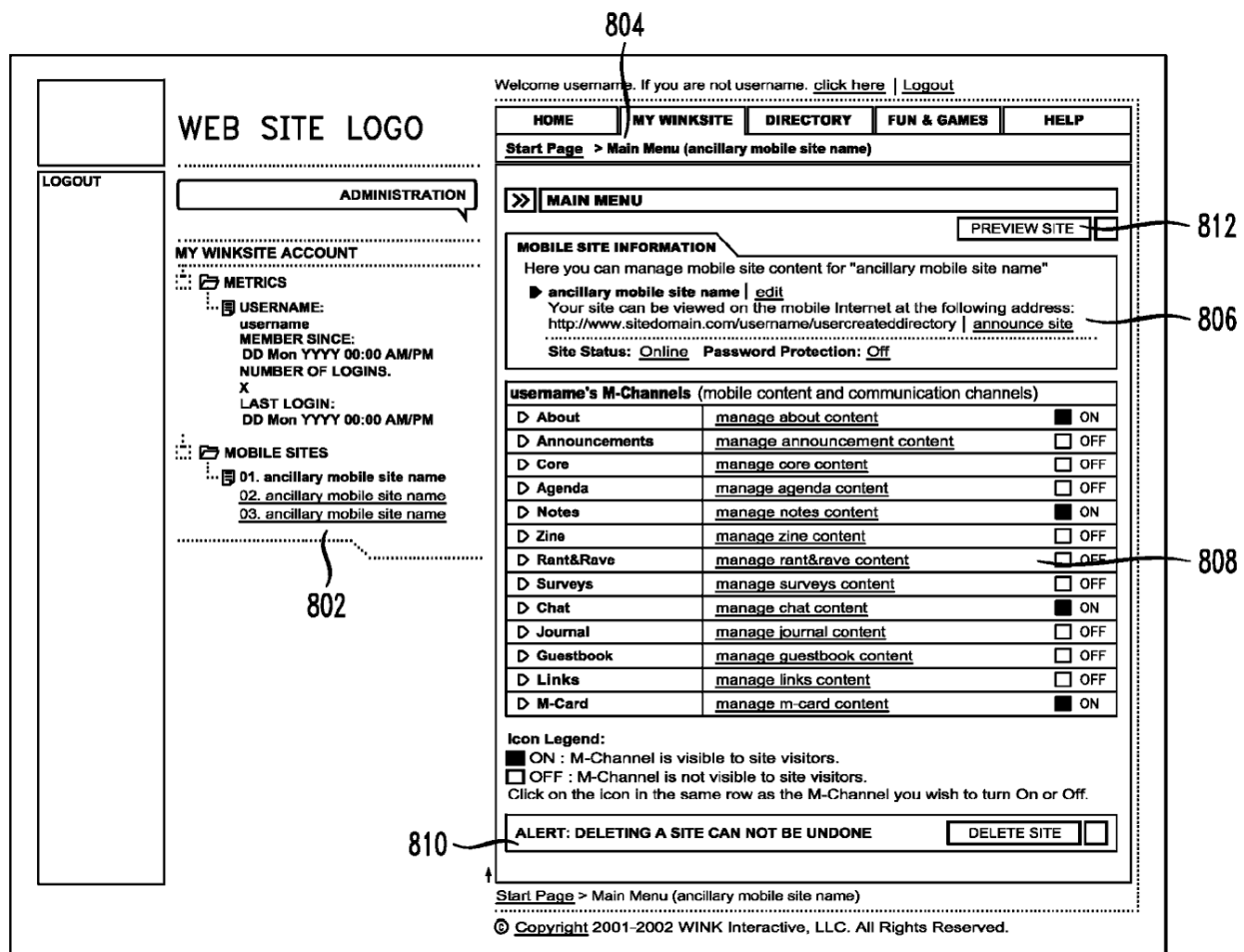
interact with mobile devices, such as systems for storing and retrieving information over the Internet or communicating using the Web using wireless mobile devices.

(EX1002, ¶¶14-18.)

B. Specification Overview

In one embodiment, the patent describes a technique in which a user, through a website referred to in the patent as a ***content management*** website, can activate mobile information channels (or M-channels) for a ***mobile*** website. “The content management site permits the user to enter information in accordance with a specified format comprising a plurality of selectable mobile information channels each corresponding to an information category. The mobile information channels are also referred to as ‘M-channels’ herein....” (’039, 5:13-18.) Figure 8 shows an exemplary page of a content management website that can be used to activate mobile information channels for a mobile website:

FIG. 8



(’039, Fig. 8, 13:31-33.) Figure 8, as shown, includes mobile website information 806 and M-channel information 808 making mobile information channels visible on the mobile website. (’039, Fig. 8, 13:31-41.) These M-channels are “utilized at the content management site... to facilitate the generation of mobile sites and the management of associated content.” (’039, 8:2-5.) Mobile information channels thus “allow unsophisticated users to easily and efficiently author message data or other types of information content to be made accessible via a collaborative workspace, a data mailbox, a collaborative community, or other type of mobile site

or portion thereof generated or otherwise managed in the system **10**.” (’039, 8:5-11;
see also id., 8:21-35 (listing exemplary M-channels).)

Information and selections provided by the user
through the content management website are “processed to
generate a mobile web site comprising information content
that is accessible via one or more of the mobile devices **15**
over the wireless network **12** of the system **10**.” (’039,
5:18-22.) An example screen display from a mobile
website is shown in Figure 24a (at right). (’039, 3:23-25,

FIG. 24a

WINKsite	
WINKsite 1 About (OK) 2 Directory (OK) 3 Go to... (OK) 4 Sign Up (OK) 5 Help (OK)	
----	Login

14:54-57.) In one embodiment, a mobile device for use with the alleged invention
may be “a web-enabled mobile phone,” but the patent “does not require use of any
particular type or configuration of mobile device.” (’039, 14:45-49.)

V. CLAIM CONSTRUCTION

Petitioner does not believe express claim construction is necessary at this
time. As discussed in **Part VI** below, the parties to the pending litigation have
proposed certain constructions for terms recited in the challenged claims. (EX1025.)
The prior art cited herein, as demonstrated below, renders the challenged claims
obvious under each of the proposed constructions or any reasonable construction.
For purposes of this IPR, express constructions are not required.

VI. THE CHALLENGED CLAIMS ARE UNPATENTABLE

A. Overview of Grounds

The challenged claims attempt to lay claim to techniques for allowing users to share information over the Internet with other users via mobile devices. But these techniques were well-known before the '039 patent.

All grounds rely on Neibauer (**EX1003**), which describes features of the popular Yahoo! website and service. (EX1002, ¶¶48-50.) Neibauer discloses a feature called Yahoo! Clubs that allows users to create web-based communities for users to share information through photo sharing and other features. (EX1002, ¶¶51-52, 87-88; Neibauer, pp.477-480.) Neibauer also discloses the ability to access Yahoo! services via mobile devices such as cell phones. (EX1002, ¶¶56, 102; Neibauer, pp.166-174.) Neibauer is a strong reference that discloses and renders obvious the majority of the claim limitations and, as observed in **Part III.C** above, was relied upon by the PTO in a reexamination that rejected all claims of an earlier patent in the same family as the '039 patent.

All grounds also cite to Cheng (**EX1005**), which provides an additional basis for showing that it would have been obvious to provide the Yahoo! Clubs features from Neibauer to users via mobile devices. (EX1002, ¶¶58-59.) Cheng describes a proxy server that can convert any existing (non-mobile) webpage for use on a mobile device. (EX1002, ¶¶60-65, 98-100.) As noted in **Part III.C** above, Cheng was also

cited in the earlier reexamination mentioned above. All grounds also cite to Squibbs (**EX1011**), for location-based features of the challenged claims. Squibbs discloses a technique for displaying a photo album by showing, on an electronic map, the location of where the photo was taken based on location information provided with the photo. (EX1002, ¶¶67-73; Squibbs, Figs. 6-7.)

Ground 2 cites to Bandera (**EX1017**) solely for features of dependent claim 21. Grounds 3-4 are substantially similar to Grounds 1-2, but add Harvey (**EX1010**), solely to account for a potential construction of “**application-based information channel**” proposed by Petitioner in the pending litigation. If the Board chooses not to adopt that construction here, it need not consider these grounds.

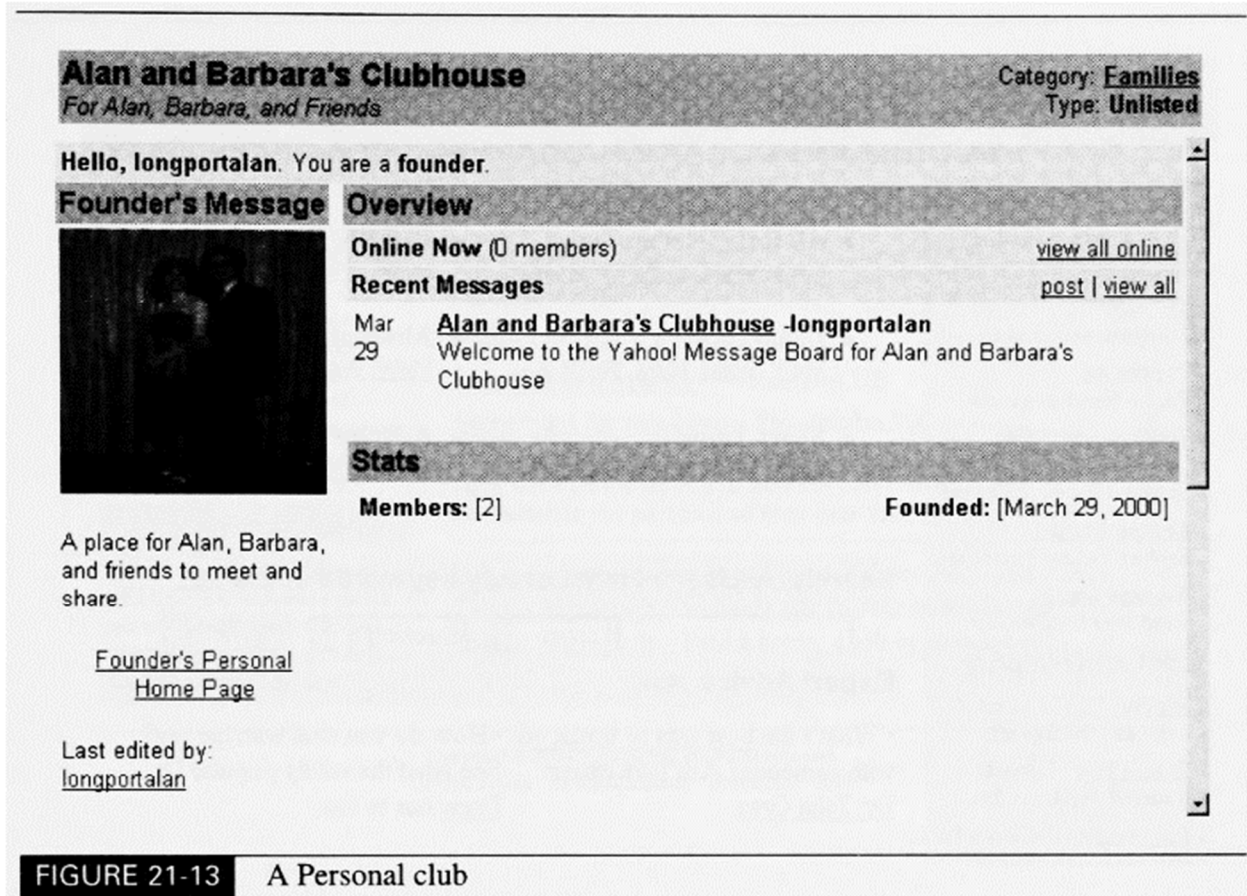
B. Prior Art Status of Relied-Upon References

Pre-AIA law applies to the challenged claims, and each reference cited in the grounds listed in **Part III.B** qualifies as prior art. Neibauer qualifies as prior art under § 102(b) because it was published more than one year before the priority date, as evidenced by public library availability. (Hall-Ellis, EX1026, ¶¶40-46.) Squibbs also qualifies as prior art under § 102(b) because it is a patent application published more than one year before the priority date. Cheng, Bandera and Harvey qualify as prior art under at least § 102(e) because they are patents issuing from applications filed before the priority date.

C. Ground 1: Claims 19-20, 22-23 Are Obvious Over Neibauer In View Of Cheng and Squibbs.

1. Independent Claim 19

As detailed below, Neibauer discloses features of a Yahoo! service known as Yahoo! Clubs. (Neibauer, pp.473-483.) Neibauer explains that “[a] *club* is a group of Yahoo! members who share a common interest. Each club has its own message board, chat room, as well as places to share photographs, news, addresses, and links.” (Neubauer, p.473 (*italics in original*)). Yahoo! members could also create their own clubs. (Neibauer, pp.480-82.) An exemplary club is shown in Figure 21-13:



(Neibauer, p.483, Fig. 21-13.) As described in detail below, Neibauer discloses a

method for managing information content because a club founder can manage the information on a club such as messages and photos shared with other members of the club. (Neibauer, pp.478-480.)

- (a) **“receiving, at a server from a mobile device, content for insertion into a previously established application-based information channel, the previously established application-based information channel permitting interaction between a user of the mobile device and one or more additional users;” (19[a])**

Most of the key limitations of claim 19 are introduced in this limitation, and thus, will be covered here. As noted, Neibauer explains that clubs can have various features including a club message board, chat room, photo sharing feature, among others. (Neibauer, p.473.) For purposes of claim 1, Petitioner will focus on the club photo sharing feature described in Neibauer.

The claimed step of receiving content for insertion for insertion into a previously established application-based information channel takes place when the server receives a photo uploaded by a club member to be shared with other club members. As explained in Neibauer:

Sharing Photographs

The Photos option in the Our Pages section lets members share photographs and other graphics. Each club is given 5 MB of space to store photographs. The photos are organized into up to 30 albums, each with no more than 24 photos.

There are two types of albums: group and personal. Any member can

place a photo in a group album and delete photos that he or she added as well. Only the creator of a personal album can add or delete photographs.

(Neibauer, p.477 (bold in original).) In order to add a photograph to an album, the user identifies the location of the photo and enters a name and description of the photo that will be uploaded. (Neibauer, p.478, ¶¶2-3.) More specifically:

Adding a Photograph to an Album. You can add a photo to an album starting from the list of albums or the list of photos in an album. Just follow these steps:

1. If you are viewing the Photo Albums page, click Add Photo on the right side of the name of the album where you want to insert the photo. If you are looking at the list of photos already in an album, click the Add Photo button on the top of the page.
2. In the page that appears, enter either the path and name of the photo on your disk or click Browse to locate the file. You can also click the On The Web link to designate a photograph located on a Web page.
3. Enter a name and description of the photo.
4. Select an option from the Resize Photo section. Resizing allows Yahoo! to adjust the size of the photograph to make better use of the club's Web space and to make the photos easier to view. You can select Don't Resize, Large, Medium, or Small.
5. Click Preview to see how your photo will appear, or click Upload to move a copy of the photo into the club's Web space.

(Neibauer, pp.477-478; *see also* pp.477-478 (showing clickable “Add Photo” option available on album pages).) Neibauer thus discloses “**receiving content**,” by disclosing the ability of a club member to upload at least one photo for insertion into an album of the club photo sharing feature as described above.

It would have been obvious that the photo would have been received “**at a server**,” *i.e.* a server that hosts the website providing the club photo sharing feature. (EX1002, ¶88.) It was basic knowledge and obvious to skilled artisans that a website such as the one described in Neibauer would have required at least a web server to provide web pages via the Internet. (*Id.*; *see also* Neibauer, p.473 (“Access Yahoo! clubs by clicking Clubs on the Yahoo! home page or by going directly to <http://clubs.yahoo.com> to open the page shown in Figure 21-6.”), p.64 (“**http://** This is the prefix for the standard type of Internet Web site. The letters stand for Hypertext Transfer Protocol.”) (bold in original), p.22 (“Each Yahoo! member gets 3MB of mail space on the Yahoo! server to store messages.”).)¹

The claimed server is also expressly and separately disclosed and rendered obvious under the proposed combination with Cheng, discussed further below. (EX1002, ¶¶93, 99-100.) And as explained later below, it would have been obvious for the photo to have been received at a server “**from a mobile device**.”

¹ Except as otherwise noted, all emphasis in quotations was added by Petitioner.

The club photo sharing feature qualifies as an application-based information channel. The term “**application-based information channel**” appears in the claims but not in the written description of the invention.² The written description instead refers to “mobile information channels” or “M-channels.” (’039, *e.g.*, 5:13-18.) The patent explains that “M-channels allow unsophisticated users to easily and efficiently author message data or other types of information content to be made accessible via a collaborative workspace, a data mailbox, a collaborative community, or other type of mobile site or portion thereof generated or otherwise managed in the system **10**.” (’039, 8:5-11.) In fact, the ’039 patent expressly identifies, as examples of mobile information channels, “discussion forum,” “chat,” and “photo blog” (’039, 8:21-32), with the latter directly mirroring the club photo

² The only mentions of “**application-based information channel**” in the ’039 patent, outside the claims, appear in the Summary of the Invention. (’039, 2:11-16-53.) These disclosures merely parrot the claim language and did not appear in the parent application to which the ’039 patent claims priority (Appl. No. 09/324,698, issuing as U.S. Patent No. 9,619,578 B2, separately challenged in IPR2024-00249), or in the earliest June 2002 and June 2003 applications to which the ’039 patent claims priority. Patent Owner has not argued that the disclosures in the Summary of the Invention are required to provide written description support for the claims.

sharing feature in Neibauer.

The club photo sharing feature therefore qualifies as an “**application-based information channel**” because it mirrors exemplary mobile information channels in the ’039 patent, and provides a medium that allows club members to upload and share view information (*e.g.* photos). The term “application” is generally understood by skilled artisans as referring to a computer software program for performing a particular function. (EX1002, ¶90; *see also Microsoft Computer Dictionary* (5th ed. 2002) (EX1021), p.31 (“**application** *n.* A program designed to assist in the performance of a specific task, such as word processing, accounting, or inventory management.”) (bold and italics in original).) This is also consistent with how “application” is used in the patent. (’039, 18:10-14 (“Also, the system provides a platform for the development of a wide variety of personalized content applications for users of mobile devices....”).) The ’039 patent also discloses use of a browser on the mobile device to access shared content. (’039, 13:53-55 (“The mobile site home page **400** may be accessed, for example, by entering a corresponding URL of the mobile site into a browser at one of the mobile devices **15**.”).) Accordingly, the club photo sharing information channel in Neibauer is “application-based” because it is provided using software programs running on at least the server that provides the club functionality in Neibauer, and using at least a web browser application running on the mobile device of the club member, which allows the club member to

interact with and use that feature. (EX1002, ¶¶89-90.)

The club photo sharing feature is also a “**previously established**” application-based information channel because, as shown above, it was already established as a feature of the club before the club member chose to upload a new photo to a photo album. The club photo album feature also “**permit[s] interaction between a user of the mobile device and one or more additional users,**” because the club member can upload and share photos with other club members. (Neibauer, p.477 (“Any member can place a photo in a group album....”); *id.* (“For each photo you will see [in Figure 21-10] the title, contributor’s name, the photo’s size, and the date it was posted. Click a photo title to see the photo on your screen. Click View Thumbnails to see miniatures of all of the photographs.”).) The club photo sharing feature thus permits interaction and information exchange between multiple club members.

Limitation 19[a] further requires receiving content at a server “**from a mobile device,**” and permitting interaction with “**a user of the mobile device.**” It would have been obvious that the club photo sharing feature would have allowed club members to upload and view photos via mobile devices. The ’039 patent itself expressly defines a “mobile device” as including, among other things, a laptop computer. (’039, 4:26-36.) It was well-known that conventional laptop computers provided the same functionality as desktop computers and could run web browser software and visit web pages on the Internet. (EX1002, ¶91.) It therefore would

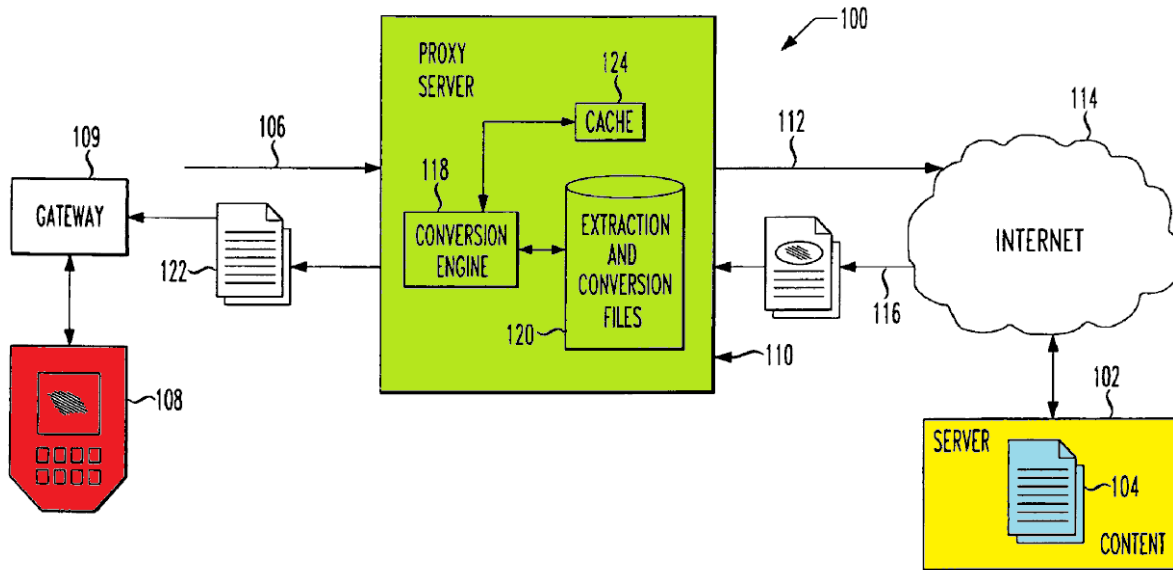
have been obvious that the Yahoo! website, including the club photo sharing feature discussed above, would have been accessible to users of mobile devices such as laptop computers. (*Id.*)

And to the extent mobile device were construed as requiring a handheld device, Neibauer itself discloses services such as “Yahoo! Mobile” and “Yahoo! To Go” that enabled content from Yahoo! services to be provided to mobile devices such as pagers, cell phones, web phones, and personal digital assistants (PDAs). (Neibauer, pp.166-174.) “Yahoo! To Go lets you receive Yahoo! information on your mobile device.” (Neibauer, p.167.) For example, one option referred to as “Yahoo! On Your PDA” allowed users of browser-enabled PDAs to select particular Yahoo! content that would be accessible from their PDA. (Neibauer, pp.171-174.) Although Neibauer does not expressly disclose that Yahoo! Clubs was one of the Yahoo! features that could be made accessible via mobile devices, it would have been obvious to the extend mobile device functionality in Neibauer to cover that feature, in order to allow user-created clubs to be accessed by users via mobile devices. This would have been viewed as a logical (and obvious) extension to the existing mobile features described in Neibauer. (EX1002, ¶102.)

Using the photo sharing feature through a mobile device would also have been obvious over Neibauer and in further view of Cheng (**EX1005**). Cheng relies on an established technology known as “proxy servers,” which were commonly used to

provide security and interoperability between devices. (EX1002, ¶63.) Cheng relies on this proxy server concept to convert non-mobile webpages into a format accessible by mobile devices. Figure 1 illustrates one embodiment:

FIG. 1



(Cheng, Fig. 1 (color annotation added).)

The right side of Figure 1 above shows an origin web server **102** that contains original web page **104**. (Cheng, 3:36-37.) “The web page **104** is typically an HTML file with references to any component .wav, .mov, and/or Joint Photographic Experts Group (JPEG) files, which together comprise the web page **104**.” (Cheng, 4:10-13.) “It is envisioned that each instance of web content **104** each have associated therewith a URL.” (Cheng, 3:56-57.) Web page **104** in Cheng could have been any web page in HTML format reachable via the Internet, such as any web page from the Yahoo! website as described in Neibauer. (EX1002, ¶93.) Origin server **102**,

under the proposed combination with Neibauer as noted below, therefore would have represented the server that provides the club photo sharing feature and that receives photos uploaded by members. (EX1002, ¶¶93, 100.)

The left shows a mobile device **108** connected to proxy server **110**, optionally through gateway **109**. (Cheng, 3:33-36.) “Mobile devices **108** generally come in a variety of different sizes and have a variety of different screen interfaces... [T]he present invention provides the ability to uniquely tailor web page **104** content for specific mobile devices **108**.” (Cheng, 5:11-15.) Cheng explains that, in one example, mobile device **108** could be a mobile device with a Palm operating system that includes a web browser. (Cheng, 5:17-23, 2:8-15.)

The middle of Figure 1 shows proxy server **110** – the key feature of Cheng here. Proxy server **110** “‘sits’ between the clients (e.g., the mobile device(s) **108**) and the origin web server(s) **102** that provide Web content **104**.” (Cheng, 3:31-33.) Cheng explains that proxy server **110** “obtains the code (e.g., HTML) of the user requested web page **104**, and modifies it at the proxy server **110** (once obtained),” which can include “reformatting and/or converting an entire web site or request specific Web content that is needed from the origin web server **102**.” (Cheng, 3:41-48.) Proxy server **110** can also store a device profile for mobile device **108** based on the device and web browser types. (Cheng, 5:20-23.)

The general operation of proxy server **110** in Cheng is straightforward. As

shown in Figure 1, mobile device **108** can issue a request **106** for an original web page **104** using standard HyperText Transport Protocol (HTTP), as was well-known in the art, with the request **106** being received by proxy server **110**. (Cheng, Fig. 1, 2:19-21, 3:58-67, 7:65-8:2; EX1002, ¶¶65, 100.) “Upon determining that the requested page **104** resides at the server **102**, the proxy server **110** makes a request **112** for the page. As shown, the proxy server **110** and the server **102** are connected via a network **114** such as the Internet.” (Cheng, 3:65-4:2; *see also id.*, 2:21-24.)

Proxy server **110** then converts and/or reformats original web page **104** into reformatted web page **122** (shown in Figure 1), which is transmitted to mobile device **108**. (Cheng, *e.g.*, 2:24-29, 5:46-49, 4:56-60.) “The designated HTML content of the retrieved web page **104** is extracted, subsequently and/or converted, and transmitted as a reformatted web page **122** to the mobile device **108**.” (Cheng, 5:46-49; *see also id.*, 3:22-26.) The proxy server can also perform conversion on images on the web page to enable viewing on a mobile device, for example, by scaling and reducing colors and resolution. (Cheng, Fig. 7 (704, 706, 708), 10:60-11:8.)

Rationale and Motivation to Combine (Neibauer with Cheng): It would have been obvious to combine Neibauer with Cheng, predictably resulting in the club features relied upon in Neibauer being made available to mobile devices over the Internet. Under the proposed combination, all of the web-based club photo sharing features in Neibauer relied upon for claim 19, including uploading photos to

photo albums and viewing photos in photo albums, would have been made available and delivered to a mobile device using the techniques in Cheng. (EX1002, ¶98.)

The proposed combination would have been exceedingly straightforward as Cheng provides “bolt-on” functionality, with the proxy server capable of converting and reformatting any existing HTML-based web page into a format suitable for display on a mobile device. (EX1002, ¶¶99, 104-105; Cheng, *e.g.*, 2:30-32 (“The [reformatting] may be done for at least one of groups of devices, individual devices, web site-specific conversions, or for all web sites.”).) It would have been obvious that proxy server **110**, under the proposed combination, could have been operated by the same or a different entity from the operator of origin web server **102**. (EX1002, ¶99.) In any case, the proposed combination would not have required changing the underlying functionality in Neibauer, a feature that provides a further motivation to combine as discussed below. (EX1002, ¶¶99, 104-105.)

Under the proposed combination, therefore, the new uploaded photo would have been “receiv[ed], **at a server from a mobile device,**” when a club member via the web browser on their mobile device uploads a photo using the techniques described above. (EX1002, ¶100.) The claimed “**server**” for purposes of claim 19 either corresponds to origin server **102** in Cheng (which would have performed the club photo sharing functionalities of Neibauer as discussed above), or proxy server **110** (which would have made those functionalities available to mobile devices), as

both would have received the HTTP request that included the photo under the proposed combination (*i.e.* first by the proxy server **110**, then by origin server **102**). (*Id.*) Alternatively, the “**server**” could have corresponded to the combination of origin server **102** and proxy server **110**, which is consistent with the ’039 patent that makes clear that a particular server can comprise multiple servers. (’039, 8:63-65 (“Each of the servers **33**, **35**, **37** and **39** [of processing elements **30**] may comprise one or more of the servers **16** or other elements shown in FIG. 1A, or suitable portions or combinations thereof.”).) And even if the claim were interpreted to require a single physical server (it does not), it would have been obvious to combine proxy server **110** and origin server **102** into a single server. (EX1002, ¶100.) This implementation is disclosed by Cheng itself, which explains that the computer system implementing the proxy server can “be replaced by, or combined with, any suitable processing system operative in accordance with the principles of the present invention....” (Cheng, 23:20-25.) This would have been obvious and trivial in view of Cheng, as ordinarily skilled artisans would have been familiar with well-known techniques for consolidating tasks within a single server when needed. (EX1002, ¶100.) For example, an ordinarily skilled artisan would have been motivated to combine these servers to improve performance of the overall system, as this would have eliminated the step (and network overhead associated with) origin server **102** having to send the original web page **104** to proxy server **110** over the Internet,

before conversion and transmission to mobile device **108**. (*Id.*)

Neibauer is an analogous reference in the same field as the '039 patent of network-based communication systems for managing information content and would have been reasonably pertinent to problems facing the inventors. (EX1002, ¶101.) Cheng is also an analogous reference and would have been reasonably pertinent to several problems facing the inventors, including making web-based information content available on mobile devices. (*Id.*)

An ordinarily skilled artisan would have been motivated to combine. As noted, Neibauer itself expressly suggests the proposed combination by disclosing services such as “Yahoo! Mobile” and “Yahoo! To Go” that enabled content from Yahoo! services to be provided to mobile devices. (Neibauer, pp.166-174.) A skilled artisan would also have been motivated to make the club features available to mobile devices to take advantage of growing popularity of mobile computing and mobile devices. (EX1002, ¶¶105-106.) Cheng explains that “users of wireless devices now demand that businesses deliver web content for viewing on desktop, or mobile/portable (e.g., handheld) devices.” (Cheng, 1:18-22.) The '039 patent itself admits that “[o]ne of the most rapidly expanding aspects of wireless networking involves the accessing of information content over wireless networks via web-enabled mobile devices,” such as “mobile telephones, personal digital assistants (PDAs), palmtop computers, etc.” ('039, 1:34-38.) Market forces would thus have

motivated a skilled artisan to combine Neibauer with Cheng in order to provide the club functionalities to users of mobile devices. (EX1002, ¶103.)

Cheng provides a further express motivation to combine by explaining that the proxy server conversion method provides a “create-once, deliver anywhere approach” that eliminates the need to build and maintain separate web pages for different types of mobile devices and browsers. (Cheng, 2:8-19.) This would have provided a clear technological advantage by obviating the need to generate multiple different mobile versions of club-related pages, thus simplifying the implementation. (EX1002, ¶104.) As a further motivation to combine, the proxy server techniques in Cheng were already well-known and deployed for the very purpose of converting web page content into formats suitable for mobile devices. (EX1002, ¶105.) A skilled artisan would also have had a reasonable expectation of success as Cheng relies on known and industry-standard technologies. (EX1002, ¶106.)

Addressing Proposed Constructions in Pending Litigation: As noted in **Part V** above, no construction is needed as the prior art discloses and renders obvious any of the proposed constructions in the pending litigation. Petitioner nevertheless notes that “**application-based information channel**” is subject to an ongoing dispute in the pending litigation. Patent Owner contends that this term should be given its plain and ordinary meaning, and if necessary, construed as “*a computer program-based medium for transferring information.*” (EX1025, at 2.) This construction is satisfied

by the proposed combination as discussed above. (EX1002, ¶¶89-90.)

In order to streamline the Board’s consideration of the prior art, to the extent any construction is deemed necessary, Petitioner for purposes of this IPR only is willing to adopt Patent Owner’s construction of “**application-based information channel.**” *E.g., Glux Visual Effects Tech (Shenzhen) v. Ultravision Techs*, IPR2020-01052, Paper 28, p.33 (PTAB Nov. 17, 2021) (“*Western Digital* states, and we agree, that ‘37 C.F.R. § 42.104(b)(3) does not require [a p]etitioner to express its subjective agreement regarding correctness of its proffered claim constructions or to take ownership of those constructions,’ such as in a district court proceeding.”) (citation omitted). Patent Owner contends that this construction is supported by the plain claim language and disclosures from the specification discussed above describing “M-channels” as categories of information content that can be communicated with mobile device users. (’039, *e.g.*, 5:13-18, 8:2-11, 8:21-35.)

Petitioner has argued in the litigation that “**application-based information channel**” should be construed as synonymous with “mobile information channel,” which Petitioner has argued means “*a virtual location at the content management site at which user-authored content may be added for transmission to the mobile web site.*” (EX1025, at 1-2.) Petitioner has further argued that “*content management site*” within this construction means “*a web site that allows a user without programming to create and manage content on a mobile web site, or a portion*

thereof.” (EX1025, at 3.) These constructions are also satisfied by the proposed combination because, as discussed above, Neibauer discloses a web-based user interface for creating a club that provides a virtual location at a content management website, *i.e.*, the portions of the Yahoo! website for club creation and management that allow a club founder to create and manage content for the club. (Neibauer, pp.480-82.) It would have been obvious that the content management site in Neibauer would have further allowed the club founder to add user-authored content to the club. (Neibauer, pp.480-482 (describing how to create clubs and add content such as club name and photo); EX1002, ¶108.) This content would also have been made available on a “*mobile web site, or a portion thereof,*” *i.e.*, the club webpages delivered to mobile devices, under Neibauer alone or in view of Cheng. Petitioner has also provided separate Grounds 3-4 below, which add the Harvey reference (EX1010), to address Petitioner’s proposed construction of application-based information channel, in the event it is adopted for purposes of this IPR and the prior art for Grounds 1-2 is somehow found insufficient on this point.

(b) **“receiving, at the server from the mobile device, information associated with at least one wireless networking functionality of the mobile device;” (19[b])**

The ’039 patent does not define **“information associated with at least one wireless networking functionality of the mobile device,”** but provides examples. For example, dependent claims 8 and 9 state that the claimed information associated

at least one wireless networking functionality (of claim 1) can comprise “**at least one messaging action**” and “**at least one collaboration action**” implementable over a wireless network, respectively. Dependent claim 6 states that it can comprise “**location information of the mobile device.**” These same examples are also mentioned in the written description. (’039, 5:51-63.) The proposed combination discloses multiple examples of information associated with at least one wireless networking functionality that track the examples in the ’039 patent.

Messaging or Collaboration Action: The patent places few if any restrictions on messaging or collaboration actions, and makes clear they include members posting and sharing information to facilitate collaboration. (’039, *e.g.*, 6:26-29 (“For example, the site can be used to generate messages, using instant messaging (IM), SMS, MMS, pages, emails, voice-over-IP (VoIP) calls, cellular telephone calls, or any other suitable messaging format, that are sent to organization members over the wireless network.”), 6:34-37 (“Organization members can easily and efficiently post information and generate messages to other members so as to facilitate collaboration and other types of interaction.”).)

As explained, the new photos posted by the club member are accompanied by a textual name and description of the photo provided by the uploading club member. (Neibauer, pp.477-478 (“**3.** Enter a name and description of the photo.”).) Figure 21-10 of Neibauer shows how this textual information is incorporated into and

displayed by the club photo sharing feature:

The James Bond Movie Series
The James Bond place to talk about the movies.

Category: [James Bond Serie](#)
Club Type: [Liste](#)

Blueraja's BOND GIRL Album [Back To: Album List](#)

Created by [blueraja3](#) on 22-Nov-1999

[Add Photo](#)

Showing 1 - 12 of 12 photos | [View Thumbnails](#)

Photo Name and Caption	Contributor	Size	Posted	Edit	Delete
 Denise Richards - Stunning Blue Bikini	blueraja3	21 KB	22-Nov-1999		
 Denise Richards - Seductive Stare	blueraja3	22 KB	22-Nov-1999		
 Denise Richards - Sexiest Denise Pic	blueraja3	48 KB	22-Nov-1999		
 Denise Richards - Too Sexy! Too Sexy!	blueraja3	13 KB	22-Nov-1999		
 Famke Janssen - Modeling Lingerie	blueraja3	53 KB	22-Nov-1999		
 Famke Janssen - Sexiest Bond Girl Ever	blueraja3	13 KB	22-Nov-1999		
 Famke Janssen - Sexy Black Leather	blueraja3	10 KB	22-Nov-1999		

FIGURE 21-10 Club photo album

(Neibauer, p.478, Fig. 21-10.) Figure 21-10 above shows a partial list of photographs stored in an album, listing each photo along with its accompanying name and description. Although Figure 21-10 shows photo messages posted by one contributor (blueraja3), any member can post a photo to a group album. (Neibauer, p.477 (“Any member can place a photo in a group album...”).) Under the proposed combination, when the club member posts a new photo to a selected photo album, the photo, along with its textual name and description, would have incorporated and integrated into the photo album to which they were assigned.

This additional textual information is associated with a “messaging action”

because it provides a textual message that would also have been made available to club members through the photo sharing feature. This messaging information is also similarly associated with a “collaboration action” because, for the same reason, the textual message would have allowed club members to identify the photo and collaborate on topics of interest relating to the photo in the album. (EX1002, ¶111.)

The proposed combination therefore renders obvious “**information associated with at least one wireless networking functionality of the mobile device,**” in the form of a messaging or collaboration action by which the club member, through their mobile device and over a wireless network, provided messaging content that would have been accessible to club members. (EX1002, ¶111.) As noted previously, the mobile device would have communicated wirelessly. (Cheng, *e.g.*, 2:4-7, 5:33 (“cellular telephone”), 23:44-51 (“... wireless communication (e.g., radio frequency (RF), and the like)”); *see also* Neibauer, p.171, ¶5 (“GSM Phone”).)

Mobile Device Location Information: As noted, the ’039 claims and written description also cover information associated with at least one wireless networking functionality in the form of location information about the mobile device. This feature, which Petitioner has also relied upon for dependent claim 20 below, would have been obvious in view of Squibbs (EX1011).

Squibbs describes a technique of recording and displaying data (such as photos) along with the location where the photo was taken. (Squibbs, Abstract.)

Squibbs explains that digital cameras that included Global Positioning System (GPS) receivers were known in the art, as were systems that displayed the location where the photo was taken on an electronic map. (Squibbs, ¶¶0003-0004.)

Squibbs discloses a photo album system that allows a user to capture and record digital images, which can be associated with the physical location where they were taken. An overview of the system is shown in Figure 3:

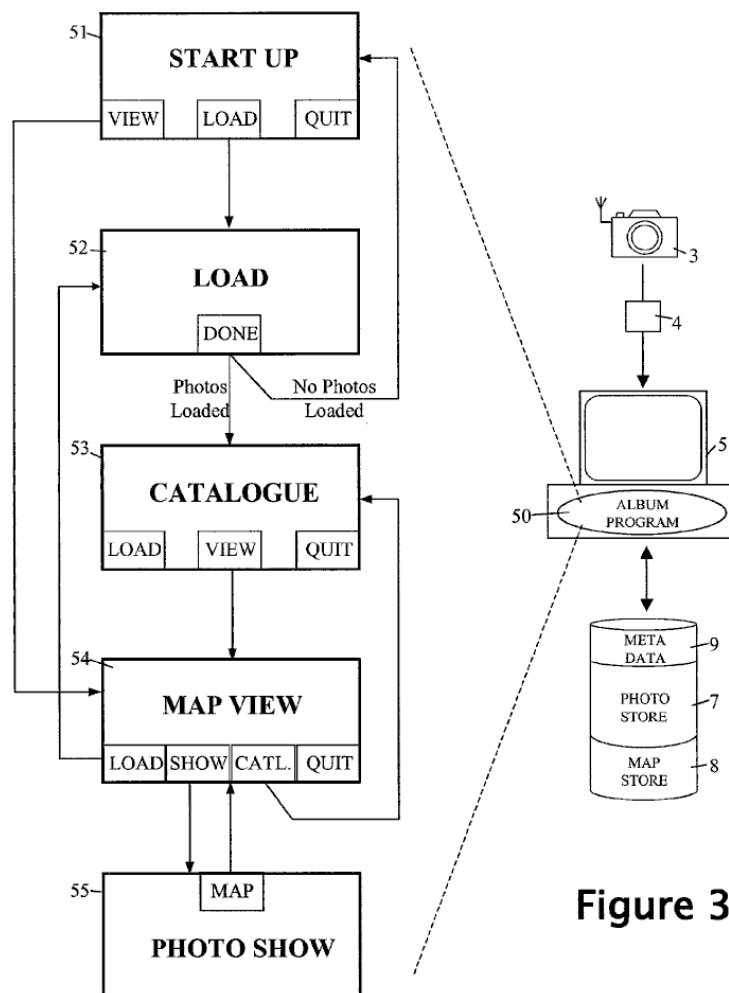


Figure 3

(Squibbs, Fig. 3.) As further explained in Squibbs, with reference to Figure 3:

FIG. 3 depicts a photo system in which a digital camera 3 provided with

location determining means (such as a GPS receiver) is used to generate digital photos **4**, each photo (also referred to as ‘image data’) **4** being stamped with location data indicating where the photo was taken... The photos and their meta data are downloaded by any suitable means (USB connection, removable storage device, etc) into a PC **5** where an album program **50** serves to store the photos in a photo store **7** and the photo meta data in a meta-data database **9**... The album program also has access to a map store **8**. The stores **7** and **8** and the meta-data database can be on the PC or external.

(Squibbs, ¶0031.)

Album program **50** allows the user to “catalogue, manage, and view their photos through a map-based interface, the photos being represented on a displayed map by a marked indicating the location where they were taken.” (Squibbs, ¶0032.) It comprises “five main operating modes **51** to **55**,” as shown. (Squibbs, ¶0033.) For example, Load Mode **52** allows the user to download data from camera **3**, and Catalog Mode **53** allows the user to manage newly loaded photos using a map-based display, and Map View Mode **54** allows the user to browse the photo album and select photos for viewing. (Squibbs, ¶¶0033, 0035-0036.) Figure 6 shows a display generated by the album program in Catalog Mode **53** (Squibbs, ¶0064):

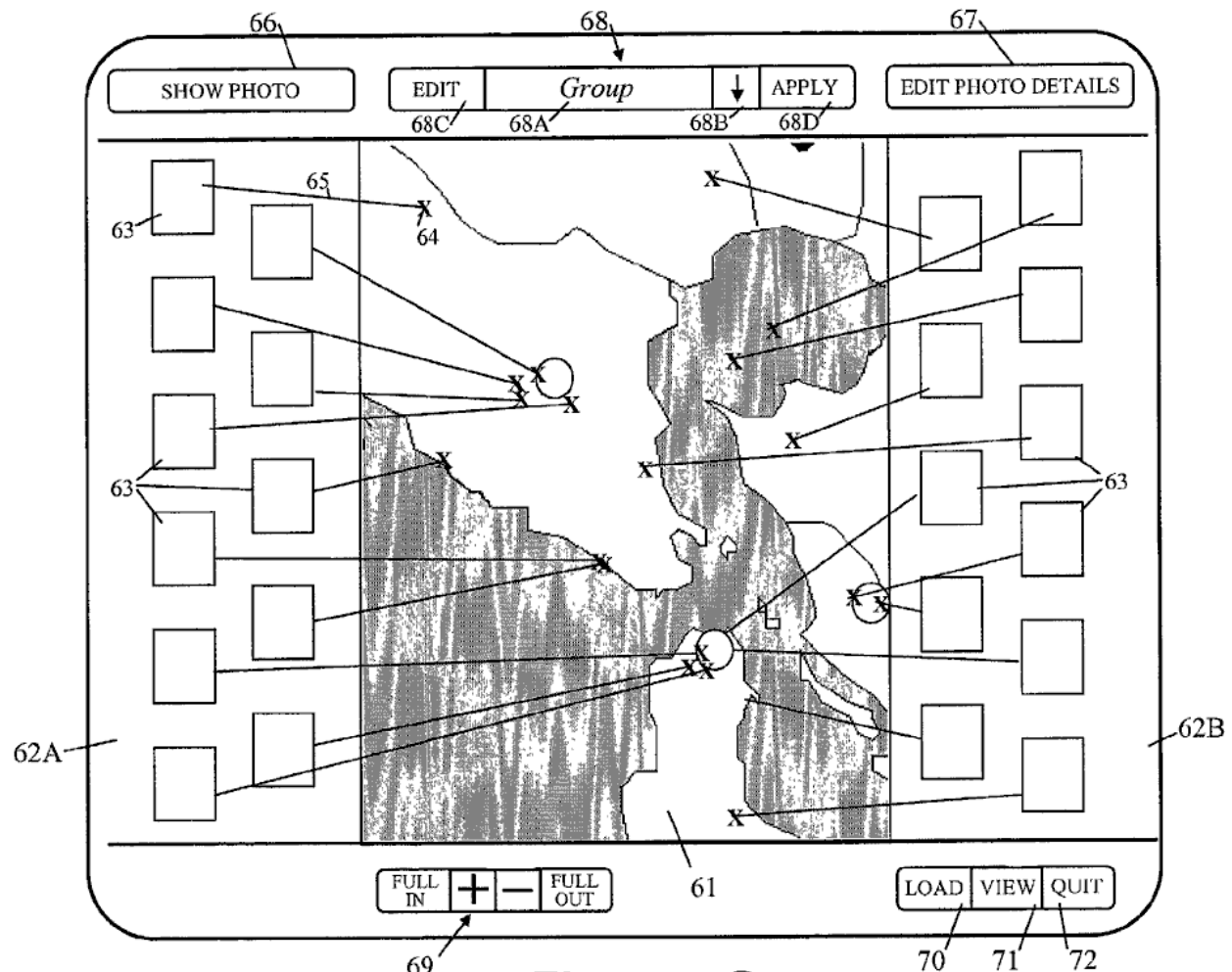


Figure 6

(Squibbs, Fig. 6.)

Figure 6 shows a central map area **61** which “is sufficient to encompass the locations registered for the newly loaded batch of photos.” (Squibbs, ¶0064.) “A thumbnail **63** of each new photo is shown in one or other of the margin areas **62A**, **B** and a lead line **65** connects each thumbnail **63** to a corresponding marker **64** showing on the map the location where the photo was taken.” (Squibbs, ¶0064.) Figure 6 also shows an upper control bar with, from left-to-right, Show Photo Control **66** for displaying the photo corresponding to a selected thumbnail **63**, Group

Control **68** for creating groups and assigning a photo to one or more groups, and Edit Photo Details Control **67** for displaying and editing the details of a selected thumbnail. (Squibbs, ¶¶0065-0068.)

Figure 7 shows a display generated by the album program in Map View **54** (Squibbs, ¶0074):

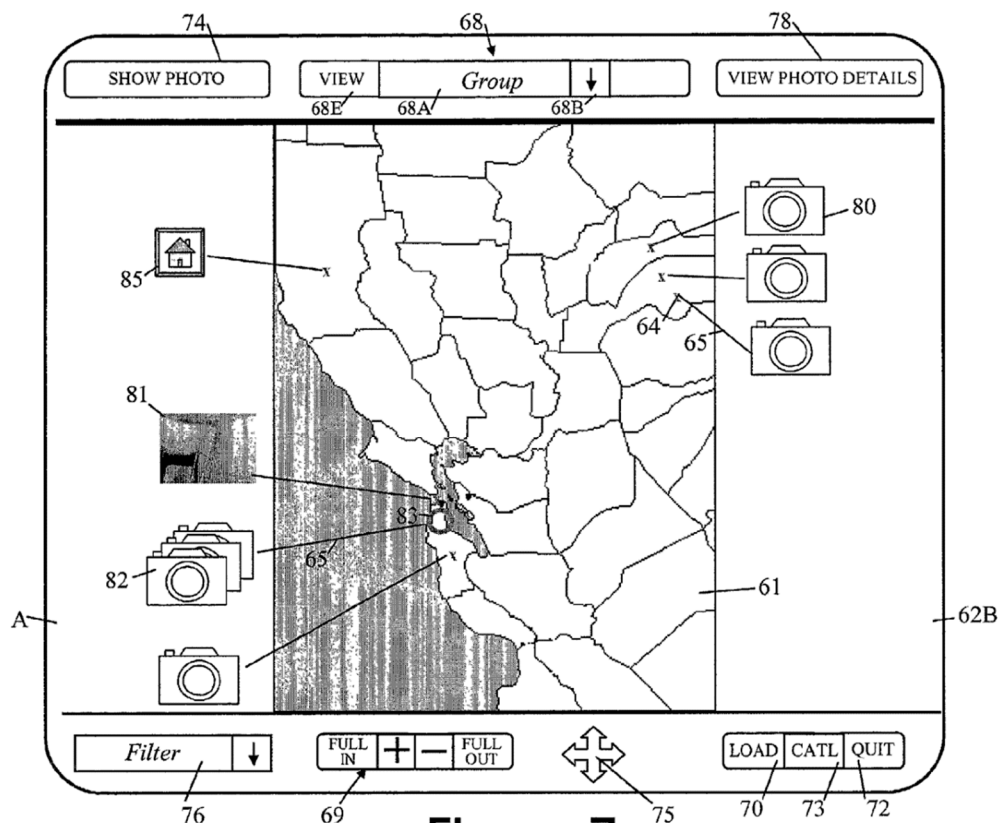


Figure 7

(Squibbs, Fig. 7.)

The Map View mode in Figure 7 allows a user to browse the album. (Squibbs, ¶0074.) Squibbs explains that “[t]he starting map displayed in the Map View Mode is, for example, a world map or a map encompassing the locations of all the photos recorded in the album; alternatively, the map displayed could be the same map as

being used in the Catalogue Mode before transiting to the Map View Mode.” (Squibbs, ¶0075.) Figure 7 shows photos represented “either as thumbnails **81**, individual photo icons **80**, group icons (see current-abode group icon **85**), or concentration icons (see icon **82**).” (Squibbs, ¶0075.) Squibbs also discloses (in Figure 8) the ability to display a full-size image of a photo selected from the Map View Mode. (Squibbs, ¶0091, Fig. 8.)

Squibbs discloses a number of ways in which a photo can be associated with location data. In the example in Figure 3, the digital camera itself has a built-in GPS receiver. In another embodiment of Figure 11, a digital camera **90** transmits the photo image data to a cell phone **20**, which in turn uploads the image data over a cellular connection to service system **40** for storage on network store **43**. (Squibbs, ¶0101, Fig. 11 (showing transfer **105**); *see also id.*, ¶0031 (noting that the photo store can be “external”).) The cell phone, when uploading photo image data, also transmits location information. (Squibbs, ¶0101.) Squibbs explains that the cell phone can determine location information in a number of ways, including from “a location server of the mobile radio infrastructure,” or using “a GPS system built into the cell phone.” (Squibbs, ¶0098; *see also id.*, ¶0101.)

Rationale and Motivation to Combine (Neibauer and Cheng with Squibbs):

It would have been obvious to combine Neibauer and Cheng with Squibbs, predictably resulting in the system and method for accessing clubs using the club

photo sharing feature, further adapted to receive “**information associated with at least one wireless networking functionality of the mobile device,**” *i.e.*, the location information associated with a photo taken and uploaded by the club member. (EX1002, ¶121.) For example, under the proposed combination, when a club member uploads a photo using the club photo sharing feature, the mobile device would not only upload the photo image data (for example, obtained from a digital camera), but also transmit geographic location associated with the photo.³ (*Id.*)

The photo sharing feature would have been further adapted to also display location information associated with photos uploaded by club members, for example, via a map-based user interface similar to the one described in Figures 6-7 of Squibbs. (EX1002, ¶122.) Under the proposed combination, therefore, the club photo sharing feature would have displayed location information (for example on an electronic map) in association with the photo. This would also have been seen as a

³ Squibbs discloses an embodiment of a digital camera separate from the cellular phone used to upload photo image and location data. (Squibbs, Fig. 11, ¶0101.) This is irrelevant here as claim 19 is agnostic as to the device originally used to generate the content received by the server. Nevertheless, the ability to incorporate digital cameras into mobile devices with GPS capabilities was known in the art before the '039 patent. (EX1002, ¶121 n.4.)

natural extension of map features already disclosed in Neibauer, as discussed below. (EX1002, ¶¶122, 124.) Squibbs is an analogous reference in the same field as the '039 patent and would have been reasonably pertinent to problems facing the patent inventors, including how to obtain location information and integrate that information into a display to the user. (EX1002, ¶123.)

An ordinarily skilled artisan would have been motivated to combine in order to improve the user experience of club members who use the photo sharing feature. (EX1002, ¶124.) The ability to associate a location with a digital photo would have provided a clear benefit by improving the classification and enjoyment of uploaded photos. Squibbs explains that classification of photos “has long been a problem due to the effort involved in maintaining any organisation of the photos.” (Squibbs, ¶0002.) Geographic location would have provided a clear way to classify digital photos, allowing club members to better understand the context behind the photo and identify objects in it. (EX1002, ¶124.)

Neibauer provides a further suggestion to combine with Squibbs by disclosing a Yahoo! Maps feature that allows users to request and view electronic maps. (Neibauer, pp.222-224.) Neibauer further describes how a user can annotate a map to identify objects of interest on the map, such as the user’s house and the location of an upcoming event. (Neibauer, pp.226-228, Fig. 10-5 (showing “My House” and “The picnic is here”).) The annotation described in Neibauer is similar to the

functionality in Squibbs, and in any case, the fact that Neibauer already discloses the ability to display electronic maps – and suggests annotating those maps to show location of objects and events within the map – confirms that Neibauer and Squibbs are naturally combinable and that a skilled artisan would have been motivated to do so. (EX1002, ¶124.) A skilled artisan would also have had a reasonable expectation of success, as Squibbs relies on existing technologies and could have been implemented using conventional techniques. (EX1002, ¶125.)

- (c) **“integrating the content and the information associated with said at least one wireless networking functionality of the mobile device into the previously established application-based information channel; and” (19[c])**

As explained for limitation 19[b] above, under the proposed combination, the uploaded photo (**“the content”**) would have been inserted and integrated into, and thus would have been viewable through, the club photo sharing feature. As also described above, under the proposed combination, the photo would have been integrated with the **“information associated with said at least one wireless networking functionality of the mobile device.”**

More specifically, as discussed, Neibauer discloses a user interface for allowing club members to select a photo albums and view the photos within the selected album. First, with respect to selection of an album:

Photo Albums					Add Album
Showing 1 - 2 of 2 albums (1024 KB total)					
Album Name	Pictures	Creator	Type	Add Photo	Edit Delete
Blueraja's BOND GIRL Album	12 (278 KB)	blueraja3	Group	Add Photo	
James Bond	21 (287 KB)	shaner303	Group	Add Photo	

(Neubauer, p.477.) The user interface shown above lists a number of available photo albums. “Click an album name to see a list of the photographs stored there, as shown in Figure 21-10.” (Neibauer, p.477.)

The James Bond Movie Series					Category: James Bond Serie
<i>The James Bond place to talk about the movies.</i>					Club Type: Liste
Blueraja's BOND GIRL Album					Back To: Album List
Created by blueraja3 on 22-Nov-1999					Add Photo
Showing 1 - 12 of 12 photos View Thumbnails					
Photo Name and Caption	Contributor	Size	Posted	Edit	Delete
 Denise Richards - Stunning Blue Bikini	blueraja3	21 KB	22-Nov-1999		
 Denise Richards - Seductive Stare	blueraja3	22 KB	22-Nov-1999		
 Denise Richards - Sexiest Denise Pic	blueraja3	48 KB	22-Nov-1999		
 Denise Richards - Too Sexy! Too Sexy!	blueraja3	13 KB	22-Nov-1999		
 Famke Janssen - Modeling Lingerie	blueraja3	53 KB	22-Nov-1999		
 Famke Janssen - Sexiest Bond Girl Ever	blueraja3	13 KB	22-Nov-1999		
 Famke Janssen - Sexy Black Leather	blueraja3	10 KB	22-Nov-1999		

FIGURE 21-10 Club photo album

(Neibauer, p.478, Fig. 21-10.) Figure 21-10 shows a list of photographs stored in an album. “For each photo you will see the title, contributor’s name, the photo’s size, and the date it was posted. Click a photo title to see the photo on your screen. Click

View Thumbnails to see miniatures of all of the photographs.” (Neibauer, p.477.)

As noted, the proposed combination discloses at least two examples of **“information associated with at least one wireless networking functionality.”** Under the first theory, as discussed, this information corresponds to a messaging action or collaboration action by which the club member (through their mobile device) provides a textual name or description for the photo, that will be shared with other members. This theory therefore discloses **“integrating the content and the information associated with said at least one wireless networking functionality of the mobile device into the previously established application-based information channel,”** because as shown in Figure 21-10 above, the uploaded photo (**“the content”**) is integrated with the messaging or collaboration action (**“information associated with at least one wireless networking functionality...”**), into the club photo sharing feature (**“the previously established application-based information channel”**), both the photo and the textual name and description being presented as integrated and associated with each other.

Under the second theory, as discussed, the **“information associated with at least one wireless networking functionality”** corresponds to location information about the mobile device used to upload the photo. As explained for limitation 19[b] above, under the proposed combination of Neibauer with Squibbs, the user interface in Neibauer could have been adapted to display the photo (or a thumbnail of the

photo) with accompanying location information. (EX1002, ¶¶122, 128.) This could have been implemented in a number of ways, presenting a trivial design choice to an ordinarily skilled artisan. In one example, the photo album listing and photo display user interface in Neibauer discussed above have been further adapted such that, upon selecting a photo from Figure 21-10 that had associated location information (the “**integrated content item**”), the photo could have been displayed on a webpage of the club photo sharing feature with an electronic map showing where the photo was taken, as disclosed in Squibbs. As another example, the user interface shown in Figure 21-10 could itself have been adapted based on Figures 6 and 7 of Squibbs, such that multiple photos in the album would have been displayed in thumbnail view on an electronic map. Many other implementations would have been apparent and obvious to an ordinarily skilled artisan. (EX1002, ¶128.) In any case, the proposed combination would have rendered obvious that the uploaded photo (“**the content**”) is integrated with the location information (“**information associated with at least one wireless networking functionality...**”), into the club photo sharing feature (“**the previously established application-based information channel**”), as both the photo and the location data would be presented as integrated and associated with each other. (*Id.*)

- (d) **“inserting other content from at least one of the additional users into the previously established application-based information channel.” (19[d])**

This limitation does not add anything of significance that was not already covered above. The step of limitation 19[d] takes place when another club member uses their own mobile device to upload another photo to the same group photo album, using the same technique described in limitation 19[a]). (Neibauer, *e.g.*, p.477 (“Any member can place a photo in a group album...”).) This would have resulted in this other photo (**“other content from at least one of the additional users”**) being inserted into the photo album via the club photo sharing feature (**“into the previously established application-based information channel”**).

As noted previously, multiple mobile devices could have been used under the proposed combination with Cheng’s proxy server conversion techniques. (Cheng, *e.g.*, 5:11-12, 5:26-29.) Under the proposed combination, therefore, additional content from other club members would have been inserted into and made available for display using the club photo sharing feature. (EX1002, ¶129.)

2. **Claim 20: “The method of claim 19, wherein integrating the content and the information associated with said at least one wireless networking functionality of the mobile device comprises: [a] obtaining location information of the mobile device; and [b] inserting additional content into the previously established application-based information channel based on the obtained location information.”**

Claim 20 was largely addressed in the discussion of 19[b]-[c]. Under the

proposed combination in view of Squibbs, when a club member uploads a photo via their mobile device to the club photo sharing feature, the mobile device would have **“obtain[ed] location information”** (e.g. via GPS or mobile radio infrastructure) of the mobile device used to upload the photo. (Squibbs, ¶¶0101, 0098.) The proposed combination, moreover, would have resulted in **“inserting additional content into the previously established application-based information channel based on the obtained location information,”** because the club photo sharing feature would have inserted an electronic map or other location information (**“additional content”**) based on the location information, for display into the album provided by club photo sharing feature (**“application-based information channel”**).

3. Independent claim 22: “A non-transitory computer-readable storage medium having embodied therein executable code of one or more software programs, wherein said executable program code when executed by a processing element of the server causes the server to perform the method of claim 19.”

Claim 22 adds nothing of patentable significance, as it would have been obvious that the steps of claim 19 would have been carried out by software code executed by **“a processing element of the server,”** such as at least one processor or CPU for carrying out software program instructions. (EX1002, ¶131; Cheng, e.g., 23:16-20 (“Although computer system **1100** is illustrated having a single processor, a single hard disk drive and a single local memory, the system **1100** is optionally suitably equipped with any multitude or combination of processors or storage

devices.”), 23:29-31 (“CPU **1204** is the central processing unit of the system, performing calculations and logic operations required to execute a program.”).) It would also have been obvious that the software used to carry out the functions of claim 19 would have been stored on at least one non-transitory computer-readable storage medium, such as a hard drive or random-access memory (RAM). (EX1002, ¶131; Cheng, *e.g.*, 23:64-24:4 (explaining that instructions may be stored in random access memory or hard disk storage until required by the computer system).)

Under the further combination with Cheng, the “**processing element**” would have included origin web server **102** in Cheng (which would have performed the functions in Neibauer), and proxy server **110** (which would have made the features of Neibauer available to mobile devices). As explained for limitation 19[a], mapping a “**processing element**” to origin web server **102** and proxy server **110** is consistent with the ’039 patent, which makes clear that a processing element or server can comprise multiple servers. (EX1002, ¶¶100, 132; ’039, 8:63-65.) And even if the claim required that the “**processing element**” be contained within a single physical unit (it does not), as explained, it would have been obvious to combine proxy server **110** and origin server **102** into a single device. (EX1002, ¶¶100, 132.)

4. Independent claim 23

Claim 23 is little more than an apparatus counterpart to method claim 19 that recites “[a] **server comprising...**” The claimed “**server**” for claim 23 is the same

server identified above for limitation 19[a]. (EX1002, ¶133.)

- (a) “**at least one processing element comprising a processor coupled to a memory;**” (23[a])
- (b) “**a network interface;**” (23[b])

It would have been apparent and obvious that the server would have comprised “**at least one processing element comprising a processor coupled to a memory,**” as these would have been basic components the server would have needed to function. (EX1002, ¶134; *see* Cheng, 23:16-19 (“Although computer system **1100** is illustrated having a single processor, a single hard disk drive and a single local memory, the system **1100** is optionally suitably equipped with any multitude or combination of processors or storage devices.”).) As noted for claim 22, under the further combination with Cheng, the “**processing element**” would have included a web server and proxy server **110**, which is consistent with the ’039 patent. And as noted, it would also have been obvious to combine origin server **102** and proxy server **110**, to the extent the claim were construed to require that the claimed processing element be contained in a single server. (EX1002, ¶¶100, 132, 134.)

It would also have been obvious that the server would have included at least one “**network interface.**” As noted, the server as described in limitation 19[a] is accessible over the Internet. (Cheng, 3:67-4:2 (“As shown [in Figure 1], the proxy server **110** and the server **102** are connected via a network **114** such as the Internet.”); Neibauer, p.4 (explaining that Yahoo! members need access to an Internet

connection), p.473 (“Access Yahoo! clubs by clicking Clubs on the Yahoo! home page or by going directly to <http://clubs.yahoo.com> to open the page shown in Figure 21-6.”), p.64 (“**http://** This is the prefix for the standard type of Internet Web site. The letters stand for Hypertext Transfer Protocol.”) (bold in original).)

It therefore would have been obvious that the server of claim 19 would have included “**a network interface**,” a basic and well-known component that allows a computer to communicate with other devices over a network such as the Internet. (EX1002, ¶¶135-136.) For example, Cheng discloses that the computer system that carries out the proxy server techniques is coupled to a communication port that facilitates communication with other devices, such as through a wireless network. (Cheng, 23:44-51 (“Communications with external devices, for example, the other components of the system described herein, occur utilizing communication port **1516**. For example, optical fibers and/or electrical cables and/or conductors and/or optical communication (e.g., infrared, and the like) and/or wireless communication (e.g., radio frequency (RF), and the like) can be used as the transport medium between the external devices and communication port **1516**.”).) Alternatively, the “**network interface**” can also correspond to gateway **109**, which in this scenario, would have been part of the claimed “**server**” and would have provided an interface between mobile devices and proxy server **110**. (Cheng, 3:33-36 (“If necessary, a gateway **109** may optionally be provided that interfaces between, for example, the

mobile device **108** and the proxy server **110**.”.) Under either theory, the claimed server would have included **“a network interface.”** (EX1002, ¶136.)

- (c) **“said at least one processing element being configured to:”** (23[c])
- (d) **“receive, from a mobile device, content for insertion into a previously established application-based information channel, the previously established application-based information channel permitting interaction between a user of the mobile device and one or more additional users;”** (23[d])
- (e) **“receive, from the mobile device, information associated with at least one wireless networking functionality of the mobile device;”** (23[e])
- (f) **“integrate the content and the information associated with said at least one wireless networking functionality of the mobile device into the previously established application-based information channel; and”** (23[f])
- (g) **“insert other content from at least one of the additional users into the previously established application-based information channel.”** (23[g])

The functions recited in limitations 23[d]-[g] are substantially identical to the method steps in limitations 19[a]-[d], respectively. With respect to limitation 23[c], as explained, the processing element in the server would have been configured to carry out the operations in Neibauer, Cheng and Squibbs, that carry out these functions. (EX1002, ¶¶131, 137.)

D. Ground 2: Claim 21 Is Obvious Over Neibauer In View Of Cheng, Squibbs, in Further View of Bandera.

1. Claim 21: “The method of claim 20 wherein said additional content comprises advertising content.”

As explained in the discussion of claim 20 in Ground 1, when a club member uploads a photo via their mobile device and also transmits location information, “**additional content**” would have been inserted into and displayed by the photo album via the club photo sharing feature, such as an electronic map or other information identifying the location, under the proposed combination with Squibbs.

The prior art for Ground 1 does not appear to disclose that the “**additional content**” would have comprised advertising content, but this would have been obvious in further view of Bandera (**EX1017**).

Bandera discloses a technique for selecting and delivering advertisements to an Internet user based on the physical location of their mobile device. In one embodiment, a mobile device can, in response to a request for a web page, obtain and provide to the web server the location of the mobile device (for example using GPS, a cellular base station, or other known techniques of determining geographic location). (Bandera, 2:41-47, 4:46-60, 6:46-7:8.) The web server, in response, generates a requested web page that includes an advertising object. (Bandera, 4:61-5:17, 7:17-30.) The web server selects the advertising object “based on a user location and/or on the time of day. Exemplary advertising objects may include text

files, audio files, video files, image files, and the like.” (Bandera, 5:21-25.) As explained in Bandera:

As an example of this aspect of the present invention, a user requests a Web page from a Web server via a mobile Web client. The Web server utilizes user location information transmitted with the Web page request to select an advertisement object that presents information about something that is physically near the user’s present location. For example, information relating to the nearest store in a national chain of stores can be presented within an advertising object displayed within a Web page.

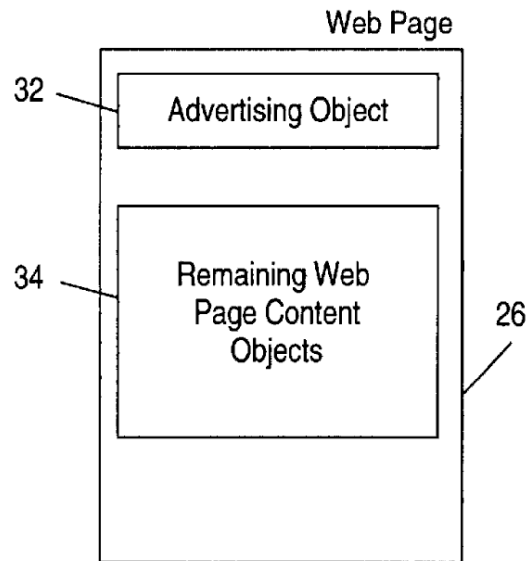
(Bandera, 7:32-40.) Bandera thus discloses providing additional advertising content based on the user’s location.

Rationale and Motivation to Combine (Ground 1 Prior Art with Bandera):

It would have been obvious to combine the prior art for Ground 1 with Bandera, predictably resulting in the method described for claim 20 in which the “**additional content**” *not only* comprised the electronic map or other location-identifying information as described for claim 20, but *further* comprised advertising based on the location of the mobile device. Under the proposed combination, therefore, the “**additional content**” that would have been inserted into and displayed by the club photo sharing feature would have *also* included advertising content based on the location of the mobile device. (EX1002, ¶142.)

This would have been trivially easy to implement, as placing advertising content on webpages was well-known and commonplace long before the '039 patent. (EX1002, ¶143.) In one exemplary implementation, after the club member uploaded a photo with location information, and then viewed the photo on a webpage of the

photo sharing feature that included an electronic map or other location-identifying information, as described for claim 20, that same web page would also have included the location-based advertising content. The excerpt of Figure 2 of Bandera at right, for example, shows display of the selected



advertising object **32** on the same page along with as the remaining content objects **34** of the page, which an ordinarily skilled artisan would have recognized as a typical implementation of a common web banner advertisement. (Bandera, 1:66-2:10.)

Under the proposed combination, therefore the photo sharing feature described in Neibauer would have been further adapted to insert “**additional content**” comprising both the location information associated with the photo uploaded by the club member (as described for claim 20), and a location-based advertisement. Petitioner notes that this combination is entirely consistent with Neibauer, which shows an exemplary club page with an advertisement placed on it:

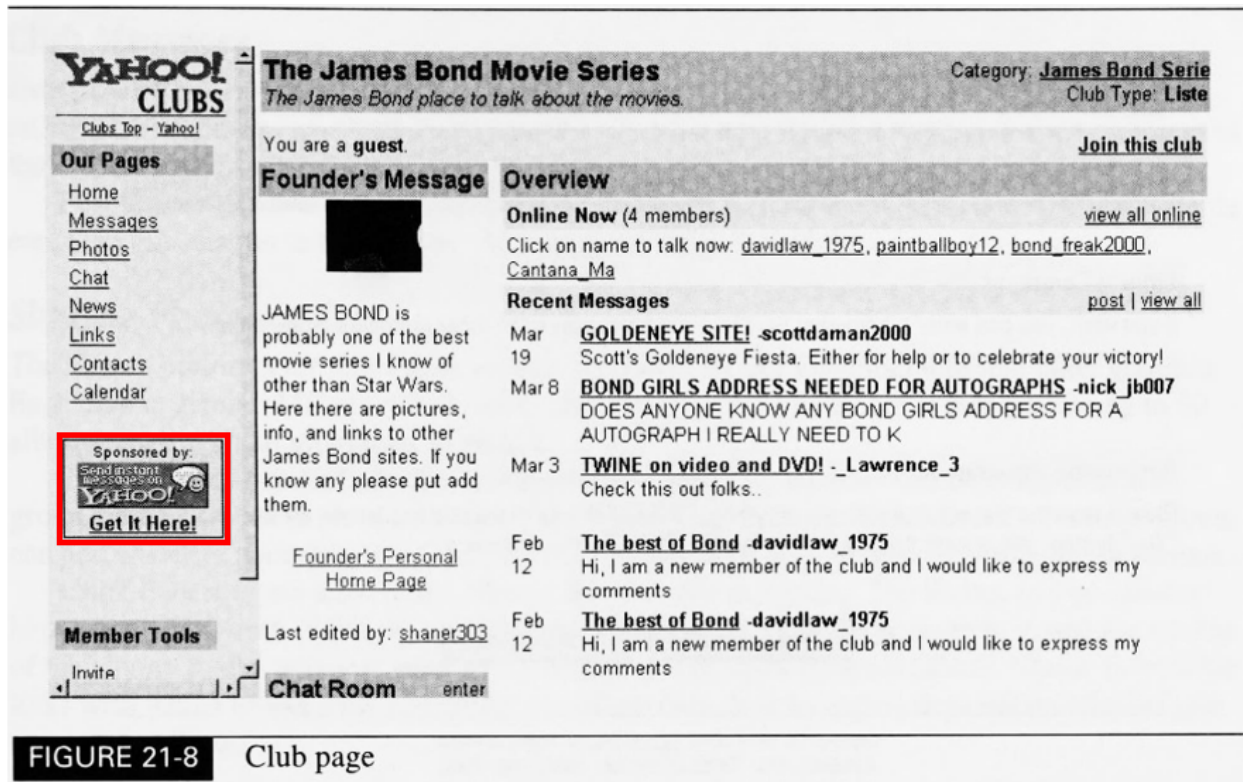


FIGURE 21-8 Club page

(Neibauer, p.475, Fig. 21-8 (red box added).)

Bandera is an analogous reference in the same field as the '039 patent of network-based communication systems and information content management on such systems, and would have been reasonably pertinent to problems facing the patent inventors, including how to insert advertising content based on the obtained location of the mobile device, as recited in claim 21. (EX1002, ¶145.)

An ordinarily skilled artisan would have been motivated to combine in order to increase revenue. (EX1002, ¶146.) As noted above, Neibauer discloses the ability to place advertisements on club pages. (Neibauer, p.475, Fig. 21-8.) The techniques of Bandera would have provided a clear benefit by allowing the club photo sharing

webpage to display advertisements based on the current location of the user, which would have resulted in advertisements that were more relevant to the user and their current location. (EX1002, ¶146.) Bandera provides an express motivation to combine by explaining that targeting users on the basis of location can enhance the effectiveness of advertising and targeting of users. (Bandera, 3:38-42.) An ordinarily skilled artisan would also have had a reasonable expectation of success, and could have implemented the proposed combination using conventional techniques. (EX1002, ¶146.)

E. Grounds 3-4: Obviousness in Further View of Harvey.

Grounds 3-4 are substantially the same as Grounds 1-2 except that they add Harvey (EX1010) to account for a construction of “**application-based information channel**” proposed in the litigation. In the event the Board finds it unnecessary to construe this term for this IPR, these grounds need not be further considered.

As explained for Ground 1, limitation 19[a], Petitioner has argued in the pending litigation that this term should be construed as “*a virtual location at the content management site at which user-authored content may be added for transmission to the mobile web site.*” (EX1025, at 1-2.) The key feature of this construction, for purposes of Grounds 3-4, is the ability of user-authored content to be added “*at a content management site,*” which Petitioner has defined in the pending litigation as “*a web site that allows a user without programming to create*

and manage content on a mobile web site, or a portion thereof.” (EX1025, at 3.)

The “*content management site*,” as explained for Ground 1, corresponds to the website for creating and managing a new club based on the proposed combination, and the “*mobile website*” to the club website made available to club members via mobile devices, under the proposed combination. (EX1002, ¶108.) With respect to the requirement that the “*content management site*” permit the user to add “*user-authored content*,” to the extent not already obvious over Neibauer, this would have been obvious in further view of Harvey. With respect to all other claim limitations in the challenged claims, the analysis from Ground 1 applies here.

Harvey discloses techniques for allowing users to create on-line communities in which users can communicate and share information, which are similar to the web-based clubs disclosed in Neibauer. (Harvey, 4:24-43.) The key feature of Harvey here is the ability of a community creator to author content for a community before the community is created and launched. As noted, Harvey explains that “[t]he community creating module permits the creator to create a community, and designate applications and content presented in the community by a user interface.” (Harvey, 4:28-30.) More specifically, a user can access a creating module **165** in order to create a new community, which may include web-based community creation. (Harvey, 7:49-56, 8:49-50.) “At step **202**, a creator provides community identification information,” such as a community name. (Harvey, 7:58-61.) “At

step **210**,” Harvey explains, “a configuration editor is presented to a creator. A configuration editor may allow a user to build a community, designate content and application objects, subscribe to subscription objects, and add other information associated with the community.” (Harvey, 8:63-67; *see also id.*, 9:41-47.) Later, “[a]t step **230**, a creator may launch a community.” (Harvey, 12:67-13:1.) Harvey therefore discloses the ability to add content to a community using the community-creation tool, before the community is created. A user can establish a connection with a community, among other ways, “through browser access to an appropriate website.” (Harvey, 29:59-62.)

Rationale and Motivation to Combine (with Harvey): It would have been obvious to combine the prior art cited for Grounds 1-2 with Harvey, predictably resulting in the club creation user interface in Neibauer with the *further* ability to allow the club founder to add content to one or more mobile information channels, before the club is created and launched. This would have satisfied Petitioner’s proposed construction of “**application-based information channel**” as “*a virtual location at the content management site at which user-authored content may be added for transmission to the mobile web site.*” Under the proposed combination, therefore, the “*content management site*” would have included the web-based interface for allowing the founder to create and manage a club disclosed in Neibauer, which would have further permitted the club founder to add content for the club via

the mobile information channels, such as initial club messages, initial photos with textual descriptions, and so forth. This information would have been made available for transmission to “*the mobile website*,” *i.e.*, the club site as delivered to mobile users. (EX1002, ¶¶151-152.) Harvey is an analogous reference and would have been reasonably pertinent to problems facing the inventors. (EX1002, ¶153.)

A skilled artisan would have been motivated to combine in order to provide club founders with greater customizability for clubs by allowing them to use the club-creation interface to populate mobile information channels with initial content, *before* the club is made available to other members. (EX1002, ¶154.) This would have allowed the club founder to ensure that other club members would not experience a “blank” club devoid of content, because the club founder would have populated mobile information channels (such as the club message board) with some initial content, thus providing a more engaging club experience for other members, featuring content available from the moment of the club’s creation. (*Id.*) A skilled artisan would also have had a reasonable expectation of success and could have implemented the combination using conventional techniques. (EX1002, ¶155.)

VII. CONCLUSION

Petitioner respectfully requests IPR institution.

Petition for *Inter Partes* Review of
U.S. Patent No. 9,032,039 B2

Dated: December 6, 2023

Respectfully submitted,

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CERTIFICATE OF COMPLIANCE WITH WORD COUNT

Pursuant to 37 C.F.R. § 42.24(d), I certify that this petition complies with the type-volume limits of 37 C.F.R. § 42.24(a)(1)(i) because it contains 11,324 words, according to the word-processing system used to prepare this petition, excluding the parts of this petition that are exempted by 37 C.F.R. § 42.24(a) (including the table of contents, a table of authorities, mandatory notices, a certificate of service or this certificate word count, appendix of exhibits, and claim listings).

DATED: December 6, 2023

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CERTIFICATE OF SERVICE

I hereby certify, pursuant to 37 C.F.R. Sections 42.6 and 42.105, that a complete copy of the attached **PETITION FOR INTER PARTES REVIEW OF U.S. PATENT NO. 9,032,039 B2**, including all exhibits (**Nos. 1001-1003, 1005-1006, 1010-1013, 1017, 1021-1022, 1024-1027**) and related documents, are being served via Federal Express on the 6th day of December, 2023, the same day as the filing of the above-identified document in the United States Patent and Trademark Office/Patent Trial and Appeal Board, upon Patent Owner by serving the correspondence address of record with the USPTO as follows:

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And, via Federal Express upon counsel of record for Patent Owner in the litigation pending before the U.S. District Court for the Western District of Texas entitled *Mobile Data Technologies LLC v. Meta Platforms, Inc.*, Case No.7:22-cv-00244-ADA-DTG (W.D. Tex.) as follows:

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