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 IPR2024-00249
U.S. Patent No. 9,619,578 B2
Issue Date: April 11, 2017

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

PETITION FOR *INTER PARTES* REVIEW OF U.S. PATENT NO. 9,619,578 B2

Table of Contents

Page

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

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

B. Related Matters under §42.8(b)(2) 1

C. Lead and Back-Up Counsel under §42.8(b)(3) 1

D. Service Information 2

II. FEE PAYMENT 2

III. REQUIREMENTS UNDER §§ 42.104 AND 42.108 AND CONSIDERATIONS UNDER §§ 314(A) AND 325(D) 2

A. Grounds for Standing 2

B. Identification of Challenge and Statement of Precise Relief Requested 2

C. Considerations Under §§ 314(a) and 325(d) 3

IV. OVERVIEW OF THE PATENT 5

A. Level of Ordinary Skill 5

B. Specification Overview 6

V. CLAIM CONSTRUCTION 8

VI. THE CHALLENGED CLAIMS ARE UNPATENTABLE 9

A. Overview of Grounds 9

B. Prior Art Status of Relied-Upon References 10

C. Ground 1: Claims 1-19, 21-22 Are Obvious Over Neibauer In View Of Ausems, Cheng and Squibbs. 11

1. Independent Claim 1 11

(a) "providing a first interface permitting designation of at least one content item, via a mobile device, for insertion into an application-based information channel, the at least one content item comprising media data captured by the mobile device; and" (1[a]) 12

Table of Contents
(continued)

Page

(b) "integrating the at least one content item and information associated with at least one wireless networking functionality of the mobile device to generate at least one integrated content item; and" (1[b]) 28

(c) "inserting the at least one integrated content item into the application-based information channel, the application-based information channel providing a second interface wherein two or more users share access to a plurality of content items including the at least one integrated content item." (1[c]) 39

2. Claim 2: "The method of claim 1 wherein the information associated with said at least one wireless networking functionality of the mobile device comprises location information of the mobile device." 42

3. Claim 3: "The method of claim 1 wherein integrating the at least one content item 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; [b] identifying additional content based on the obtained location information; and [c] generating the at least one integrated content item by combining the at least one content item with the additional content." 43

4. Claim 4: "The method of claim 1 wherein integrating the at least one content item and the information associated with said at least one wireless networking functionality of the mobile device comprises: obtaining product-identifying information over at least one wireless network; and identifying additional content based on the obtained product-identifying information; and generating the at least one integrated content item by combining the at least one content item with the additional content." 44

Table of Contents
(continued)

Page

5. Claim 5: "The method of claim 4 wherein the additional content comprises information relating to at least one of product ordering and product purchase support."....48

6. Claim 6: "The method of claim 1 wherein the information associated with said at least one wireless networking functionality of the mobile device comprises one of: location-based service information; one or more messaging actions implementable over a wireless network; and one or more collaboration actions implementable over the wireless network."....48

7. Claim 7: "The method of claim 1 further comprising providing, via the first interface, one or more content integration options to the user."....49

8. Independent claim 8: "A non-transitory computer-executable storage medium… [that] implements the steps of the method of claim 1."....51

9. Independent claim 9....53

   (a) "a processing element comprising a processor coupled to a memory;" (9[a])....53

   (b) "the processing element providing at least a portion of a first interface…;" (9[b])....54

   (c) "the processing element configured…" (9[c]-[e])....54

10. Claim 10: "The apparatus of claim 9 wherein the processing element comprises at least one server accessible over the Internet via a network interface."....54

11. Independent claim 11: "A network-based communication system comprising a plurality of servers configured to communicate over a network, a given one of the servers comprising the apparatus of claim 9."....55

12. Independent claim 12....56

   (a) "designating at least one content item…" (12[a])....56

Table of Contents
(continued)

Page

(b) "providing information associated with at least one wireless networking functionality…" (12[b]) 56

(c) "wherein the at least one content item…" (12[c]).....56

(d) "wherein the at least one integrated content item..." (12[d]) 56

13. Claim 13: "The method of [claim] 12 wherein the information associated with said at least one wireless networking functionality of the mobile device comprises location information of the mobile device." 57

14. Claim 14: "The method of claim 12 wherein providing the information associated with said at least one wireless networking functionality of the mobile device comprises: [a] providing one or more content integration options to a user; [b] receiving user input selecting at least one of the content integration options; and [c] determining the information associated with said at least one wireless network functionality of the mobile device in accordance with the selected content integration options."....57

15. Claim 15: "The method of claim 12, wherein the at least one content item comprises at least one of device-captured video data, device-captured audio data and device-captured image data."....60

16. Independent claim 16: "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 implements the steps of the method of claim 12."....60

17. Independent claim 17 60

(a) "a processing element comprising a processor coupled to a memory;" (17[a]) 61

(b) "a network interface …" (17[b]) 61

Table of Contents
(continued)

Page

(c) "the processing element being configured to:" (17[c]) 62

(d) "designate at least one content item for insertion into an application-based information channel, the at least one content item comprising media data captured by the mobile device; and" (17[d]) 62

(e) "provide information associated with at least one wireless networking functionality of the mobile device for integration with the at least one content item;" (17[e]) 62

(a) "wherein the at least one content item..." (17[f]) 62

(b) "wherein the at least one integrated content item…" (17[g]) 62

18. Claim 18: "The mobile device of claim 17 wherein the mobile device comprises one of a mobile telephone, a tablet computer and a camera." 63

19. Claim 19: "The mobile device of claim 17 wherein the mobile device comprises a global positioning system (GPS)-based navigational device." 63

20. Independent claim 21 63

(a) "providing a first interface…" (21[a]) 63

(b) "wherein information associated with at least one wireless networking functionality…" (21[b]) 63

(c) "wherein the at least one integrated content item is inserted…" (21[c]) 63

21. Independent claim 22 64

(a) "accessing a first interface…" (22[a]) 64

(b) "providing at least one content item to at least one server for insertion…" (22[b]) 64

Table of Contents
(continued)

Page

(c) "providing information associated with at least one wireless networking functionality of the mobile device to said at least one server responsive to user input;" (22[c]) 64

(d) "wherein the at least one content item…" (22[d]) 65

(e) "wherein the at least one integrated content item… (22[e]) 65

D. Ground 2: Obviousness in Further View of Harvey. 65

VII. CONCLUSION.....68

CERTIFICATE OF SERVICE 71

List of Exhibits

Exhibit No.	Description of Document
1001	U.S. Patent No. 9,619,578 B2 to David Walker Harper et al. (filed July 7, 2014, issued April 11, 2017) ("'578" or "'578 patent")
1002	Declaration of Vijay K. Madisetti, Ph.D. ("Madisetti")
1003	Excerpts from Alan Neibauer, *How to Do Everything With Yahoo!* (2000) ("Neibauer")
1004	***RESERVED***
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	***RESERVED***
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., *Pervasive Computing Handbook* (2001) ("Hansmann")
1013	Excerpts from David Fox & Troy Downing, *HTML Web Publisher's Construction Kit* (1995) ("Fox")
1014-1020	***RESERVED***
1021	Excerpts from *Microsoft Computer Dictionary* (5th ed 2002)

List of Exhibits

Exhibit No.	Description of Document
1022	File history of U.S. Patent No. 9,619,578 B2
1023	***RESERVED***
1024	Excerpts of file history of *Inter Partes* Reexamination of U.S. Patent No. 8,135,801 B2
1025	Joint Claim Construction Statement, Dkt. 51, *Mobile Data Technologies LLC v. Meta Platforms, Inc.*, 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 '578 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 ’578 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 21 claims, with a $42,625 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 ’578 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:

Ground	Claims	Basis for Challenge under §103
1	1-19, 21-22	Neibauer (**EX1003**), Ausems (**EX1006**), Cheng (**EX1005**), Squibbs (**EX1011**)
2	1-19, 21-22	**Ground 1** Prior Art + Harvey (**EX1010**)

Submitted with this Petition is the Declaration of Vijay K. Madisetti (**EX1002**) ("Madisetti"), 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 '578 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 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, 00258 & 00290 (excerpts of Neibauer), 00296 (Cheng), 00316 (Squibbs).) These references were among hundreds of 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 (21-42) on two grounds. (EX1022, 00244-00255.) First, it rejected based on double-patenting grounds in view on an earlier patent, U.S. Patent No. 8,135,801. (EX1022, 00231-00235.) Second, it rejected them as anticipated by U.S. Patent Application Pub. No. 2001/0027422 A1 to Knut Brandrud. (EX1022, 00247-00252.) The Examiner did not cite Neibauer, Cheng, or Squibbs in any of these rejections. The applicants responded by proposing various amendments to distinguish Brandrud, and for the double-patenting rejection, agreed to provide a terminal disclaimer. (EX1022, 00339-00347.) There was no specific explanation by the applicants or the Examiner as to how the amendments distinguished Brandrud, as an apparent agreement was reached on that issue during an earlier telephone interview. (EX1022, 00346, 00322.)

The Examiner subsequently issued a Notice of Allowance with respect to all claims. (EX1022, 00353-00356.) In his statement of reasons for allowance, the Examiner identified Brandrud as the closest prior art, but stated that it did not disclose at least the "**integrating**" and "**inserting**" limitations. (EX1022, 00354.) The Examiner did not provide a more detailed explanation.

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 Brandrud, as detailed in **Part VI** below. In fact, the PTO cited and relied on both Neibauer and Cheng in the successful reexamination of the earlier '801 patent to which the present patent was terminally disclaimed, 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).)

IV. OVERVIEW OF THE PATENT

A. Level of Ordinary Skill

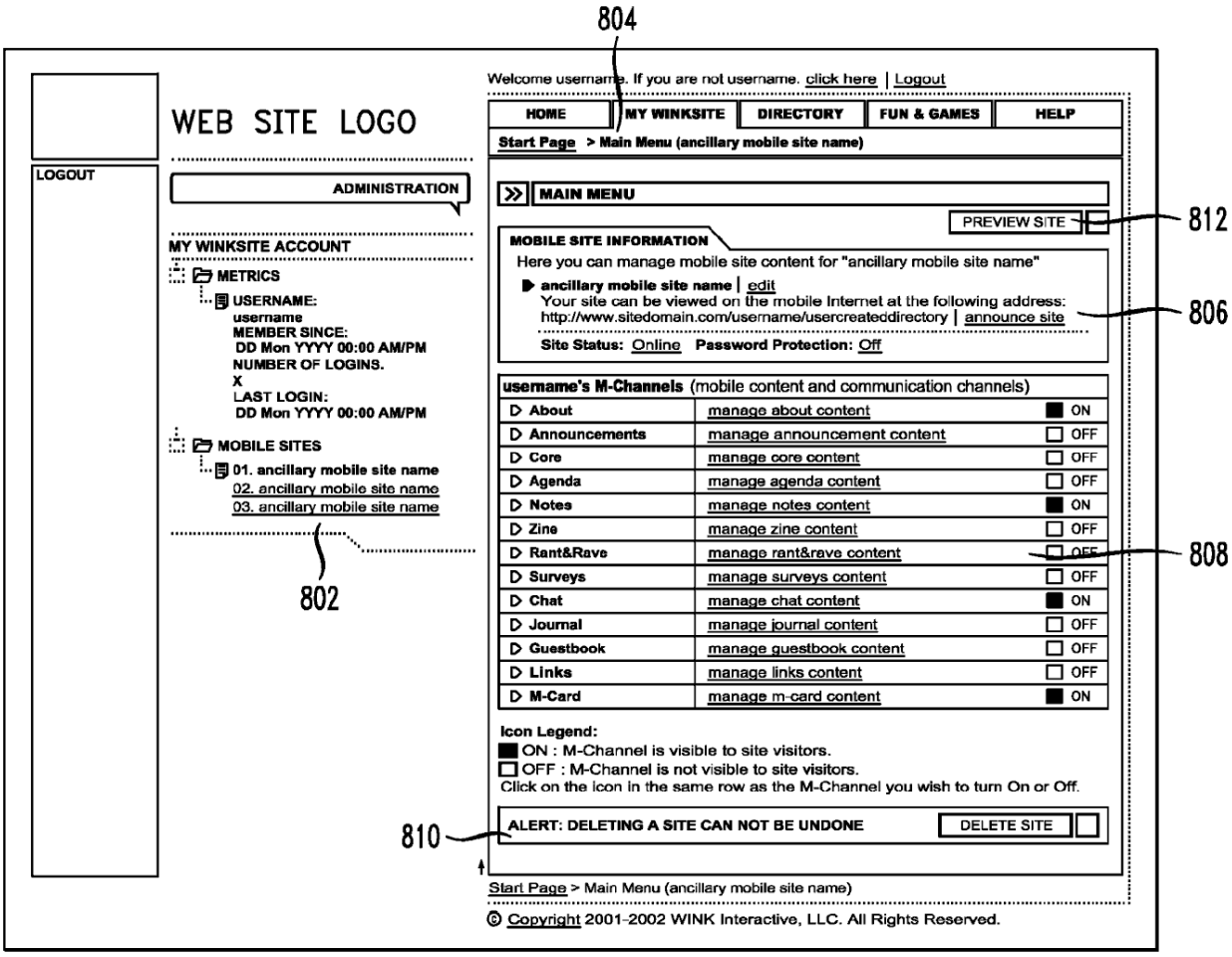
A person of ordinary skill would have possessed a bachelor's degree in electrical engineering, computer science, or similar field, with two years of experience in developing and implementing network-based computer systems that interact with mobile devices, such as systems for storing and retrieving information

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…." ('578, 5:34-41.) 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

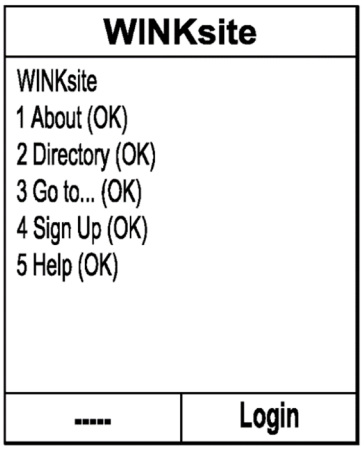


('578, Fig. 8, 14:1-3.) Figure 8, as shown, includes mobile website information **806** and M-channel information **808** making mobile information channels visible on the mobile website. ('578, Fig. 8, 14:1-16.) These M-channels are "utilized at the content management site… to facilitate the generation of mobile sites and the management of associated content." ('578, 8:26-30.) 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**." ('578, 8:30-36; *see also id.*, 8:46-60 (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**." ('578, 5:40-43.) An example screen display from a mobile website is shown in Figure 24a (at right). ('578, 3:40-42, 15:30-33.) 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." ('578, 15:21-25.)

FIG. 24a



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 '578 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, 88-89; Neibauer, pp.477-480.) Neibauer also discloses the ability to access Yahoo! services via mobile devices such as cell phones. (EX1002, ¶¶56, 105; 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 rejecting all claims of a parent patent to which the '578 patent has been terminally disclaimed.

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, ¶¶61-62.) Cheng describes a proxy server that can convert any existing (non-mobile) webpage for use on a mobile device. (EX1002, ¶¶59-63, 102-103.) As noted in **Part III.C** above, Cheng was

also cited in the successful reexamination of the earlier '801 patent. 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, ¶¶69-76; Squibbs, Figs. 6-7.) Ausems (**EX1006**) is cited for the unremarkable proposition that a mobile device can obtain image data from a digital camera. (EX1002, ¶¶78-80.)

Ground 2 is substantially similar to Ground 1, but adds 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 this ground.

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, Ausems 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 1-19, 21-22 Are Obvious Over Neibauer In View Of Ausems, Cheng and Squibbs.

1. Independent Claim 1

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:

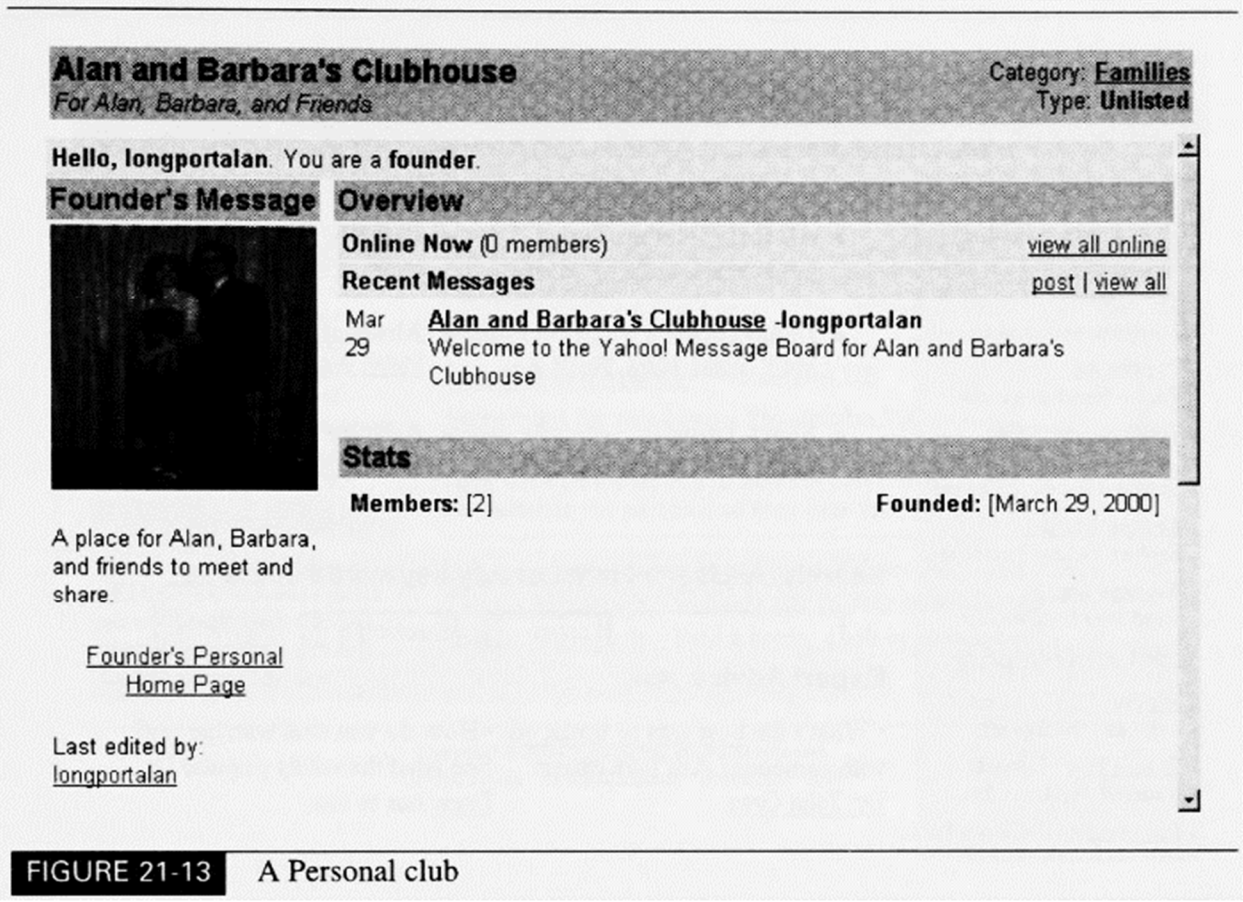


FIGURE 21-13 A Personal club

(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) "providing a first interface permitting designation of at least one content item, via a mobile device, for insertion into an application-based information channel, the at least one content item comprising media data captured by the mobile device; and" (1[a])

Most of the key limitations of claim 1 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 step of "**providing a first interface**" takes place in Neibauer when a web-based interface is provided to a club member to select a photo to upload and share 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, the claimed "**first interface**" corresponds to the web-based user interface that allows a club member to select a photo file to upload and share with other club members. As explained in Neibauer:

> **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).) The passage above discloses a "**first interface**," as evidenced by "the page that appears" in step **(2)** above. The "**first interface**" thus corresponds to the web-based user interface that appears after the user clicks Add Photo, specifically the user interface described in steps **(2)** through **(5)** above.

Neibauer thus discloses "**providing a first interface permitting designation of at least one content item… for insertion into an application-based information channel**," by disclosing a user interface that allows a club member to designate at least one photo for insertion into an album of the club photo sharing feature as described above. The "**content item**" for purposes of limitation 1**[a]** thus corresponds to the photo selected by the club member for the album.

The content item is also inserted "**into an application-based information channel**." The term "**application-based information channel**" does not appear anywhere in the '578 patent outside the claims. The written description instead refers to "mobile information channels" or "M-channels." ('578, *e.g.*, 5:34-39.) The patent explains that "M-channels allow unsophisticated users to easily and efficiently <u>author message data</u> or other types of information content to be made accessible <u>via a collaborative workspace</u>, a data mailbox, <u>a collaborative community</u>, or other type of mobile site or portion thereof generated or otherwise

managed in the system **10**." ('578, 8:27-36.)[1] In fact, the '578 patent expressly identifies, as examples of mobile information channels, "discussion forum," "chat," and "photo blog" ('578, 8:46-57), with the latter directly mirroring the club photo 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 '578 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, ¶93; *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. ('578, 18:60-64 ("Also, the system provides a platform for the development of a wide variety of personalized content applications for users of mobile devices….").) The '578 patent also discloses use of a browser on the mobile device to access shared content. ('578, 13:21-24 ("The mobile site home page **400** may be accessed, for example, by entering a corresponding URL of

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

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, ¶¶92-93.)

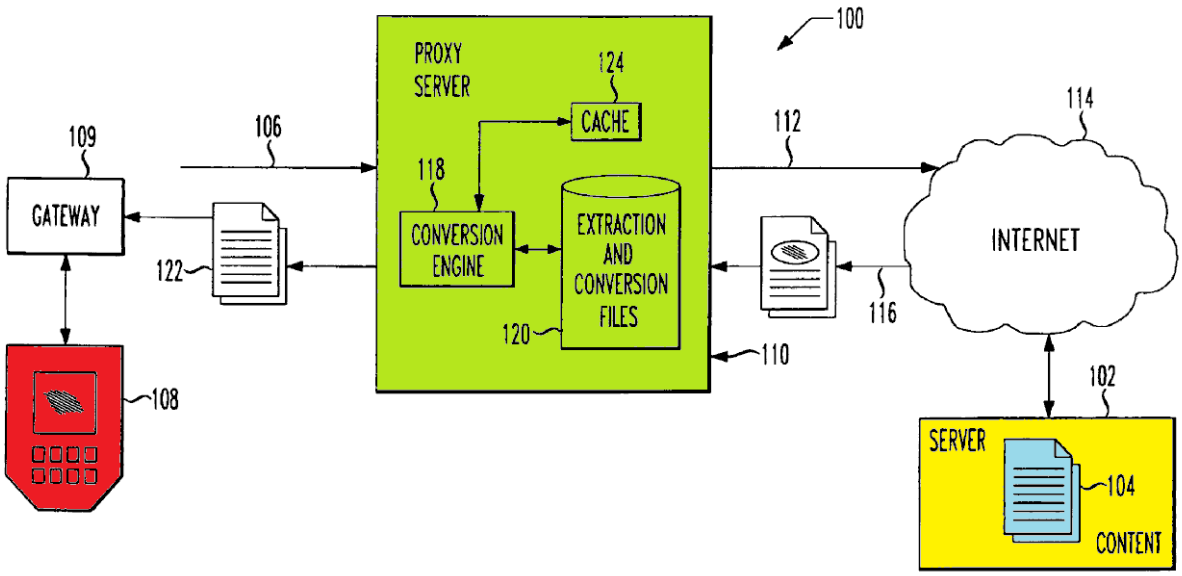
Limitation 1**[a]** further requires that designation of the at least one content item occur “**via a mobile device**.” It would have been obvious that the club photo sharing feature would have been adapted to allow a club member to designate a photo via a mobile device. The ’578 patent itself expressly defines a “mobile device” as including, among other things, a laptop computer. (’578, 4:45-55.) 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, ¶95.) It therefore would have been obvious that the Yahoo! website, including the club photo sharing feature discussed above, would have been accessible to a user of a mobile device such as a laptop computer. (*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, ¶105.)

Designating a photo "**via 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, ¶103.)

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, the web pages in Neibauer relied upon for claim 1, including the first interface for adding a photo to a club photo album, would have been converted and delivered to a mobile device using the techniques in Cheng. (EX1002, ¶102.)

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, ¶¶103, 107-108; 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 the origin web server **102**. (EX1002, ¶103.) 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, ¶¶103, 107-108.)

Neibauer is an analogous reference in the same field as the ’578 patent of network-based communication systems for managing information content and would have been reasonably pertinent to problems facing the inventors. (EX1002, ¶104.) 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 '578 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." ('578, 1:32-36.) 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, ¶106.)

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, ¶107.) As a further motivation to combine, the proxy server techniques in Cheng were already well-known and already deployed for the very purpose of converting web page content into formats suitable for mobile devices. (EX1002, ¶108.) A skilled artisan would also have had a reasonable expectation of success as Cheng relies on known and industry-standard technologies. (EX1002, ¶109.)

"Captured by the Mobile Device": Limitation 1**[a]** concludes by reciting that

the at least one content item "**compris**[es] **media data captured by the mobile device**." It would have been obvious for the photo designated by a club member, under the combination of Neibauer and Cheng, to have included media data captured by the mobile device. This is because portable communications devices prior to June 2002 included digital cameras that allowed the devices to capture, store, and transmit digital images. (EX1002, ¶110.) In the event Patent Owner were to argue that incorporation of digital cameras into mobile devices was not well-known as of June 2002, Petitioner also cites Ausems (**EX1006**) to show an example of a mobile communications device that, among other things, incorporated a digital camera for recording, storing, and transmitting digital images.

Ausems explains, as was well-known in the art, that "[t]he popularity and use of Personal Digital Assistants (PDAs) and wireless telephones has increased in recent years. A PDA or hand-held computer is primarily a lightweight, compact productivity and communications tool that can typically be held in one hand, leaving the other free to input data with a pen type stylus or a reduced size keyboard. A PDA provides computing and information storage and retrieval capabilities for personal or business use." (Ausems, 1:12-19.) Ausems further explains that "[i]ncreasingly, wireless telephones are being combined with PDAs in order to perform more advanced functions, such as transmitting, receiving and displaying text messages." (Ausems, 1:27-30.)

Ausems discloses a portable mobile device that combines the functionality of a PDA with a wireless telephone. (Ausems, 3:5-8.) This PDA telephone device **100** includes, among other things, a touchscreen display. (Ausems, *e.g.*, 1:57-58, 4:30-39, 6:9-14.) The PDA telephone **100** in Ausems can also run a conventional mobile operating system such as Microsoft Windows CE or Palm, and the operating system "may include a web browser in order to facilitate Internet access for a PDA telephone **100**." (Ausems, 7:64-8:5.)

The device also includes a digital camera **190** for recording and storing images, which can be transmitted. (Ausems, *e.g.*, 2:5-6, 5:17-18 ("Camera **190** records video images and stores them within. Additionally, video images recorded by camera **190** may also be transmitted from PDA telephone **100** in real time during a telephone call (thus allowing for video conferencing)."), 2:5-6 ("[T]he device also includes [a] digital camera for recording images….").) Ausems thus discloses a mobile device that includes a camera for capturing image media.

Rationale and Motivation to Combine (Neibauer and Cheng with Ausems): It would have been obvious to combine Neibauer and Cheng with Ausems, predictably resulting the system under the proposed combination, further adapted such that the photo uploaded by the club member to the club photo sharing feature would have comprised "**media data captured by the mobile device**," *i.e.*, a photo captured by a digital camera incorporated into the mobile device. (EX1002, ¶114.)

For example, under the proposed combination with Ausems, the club member would have obtained image data using a digital camera of its mobile device, which would have been transmitted for upload to the club for sharing with other club members using the photo sharing features described in Neibauer. (Neibauer, pp.477-478.) Ausems is an analogous reference in the same field of the '578 patent of wireless and mobile communications, and would have been reasonably pertinent to problems facing the inventor including how to capture media data using a mobile device and share that data with other users. (EX1002, ¶115.)

An ordinarily skilled artisan would have been motivated to combine, as the ability to share media data captured by the mobile device would have expanded the universe of image data that the club member could share with other members. (EX1002, ¶116.) This is because the club member would not be restricted to sharing preexisting images obtained from third parties; the member could instead capture a potentially infinite number and variety of its own images (via the digital camera in its mobile device) and share them with other club members. (*Id.*) A skilled artisan would also have had a reasonable expectation of success. As Ausems confirms, mobile communications devices with digital cameras and the ability to transmit images captured by digital cameras were already known. (EX1002, ¶117.)

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, ¶¶92-93.)

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. ('578, *e.g.*, 5:31-41, 8:17-23, 8:26-36, 8:46-60.)

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, ¶119.) 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 a separate Ground 2 below, which adds 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 Ground 1 is somehow found insufficient on this point.

(b) "integrating the at least one content item and information associated with at least one wireless networking functionality of the mobile device to generate at least one integrated content item; and" (1[b])

The '578 patent does not define "**information associated with at least one wireless networking functionality of the mobile device**," but provides examples. Dependent claim 6 states that the claimed information associated at least one wireless networking functionality of claim 1 can comprise, among other things, "**one or more messaging actions**" and "**one or more collaboration actions**" implementable over a wireless network, and "**location-based service information**." These same examples are also mentioned in the written description. ('578, 6:5-17.) The proposed combination discloses multiple examples of information associated with at least one wireless networking functionality that track the examples in the patent and satisfy limitation 1**[b]**.

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. ('578, *e.g.*, 6:47-52 ("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, <u>or any other suitable messaging format, that are sent to organization members over the wireless network</u>."), 6:56-59 ("Organization members can easily and efficiently <u>post</u>

information and generate messages to other members so as to facilitate collaboration and other types of interaction.”).)

As explained, new photos posted by club members are integrated into the club photo sharing feature, and as noted, each photo also includes a textual name and description of the photo. (Neibauer, pp.477-478.) 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, ¶121.) The proposed combination therefore renders obvious “**information associated with at least one wireless networking functionality of said at least one wireless network**,” 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, ¶121.) 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”); EX1002, ¶146.)

This information would have been used to “**generate at least one integrated**

content item," the integrated content item taking the form of the photo and associated textual message content, shown in integrated fashion in the album. This is shown in Figure 21-10 of Neibauer depicting a user interface displaying the integrated into a particular album:

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. Although this shows photo messages posted by only one contributor (blueraja3), Neibauer confirms that any member of a group album can post a photo. (Neibauer, p.477 ("Any member can place a photo in a group album….").) Under the proposed combination, therefore, when the club

member posts a new photo to a selected photo album, the photo, along with its textual name and description, would have been integrated and incorporated into the photo album to which they were assigned. Neibauer therefore discloses "**integrating the at least one content item and information associated with at least one wireless networking functionality of the mobile device to generate at least one integrated content item**," because the new photo ("**content item**") and textual message content ("**information associated with at least one wireless networking functionality of the mobile device**") would have been integrated together in the album.

Mobile Device Location Information: As noted, the '578 claims and written description also cover location information. ('578, *e.g.*, Claim 2 (reciting that "**the information associated with said at least one wireless networking functionality of the mobile device** [of claim 1] **comprises location information of the mobile device**.").) This feature 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:

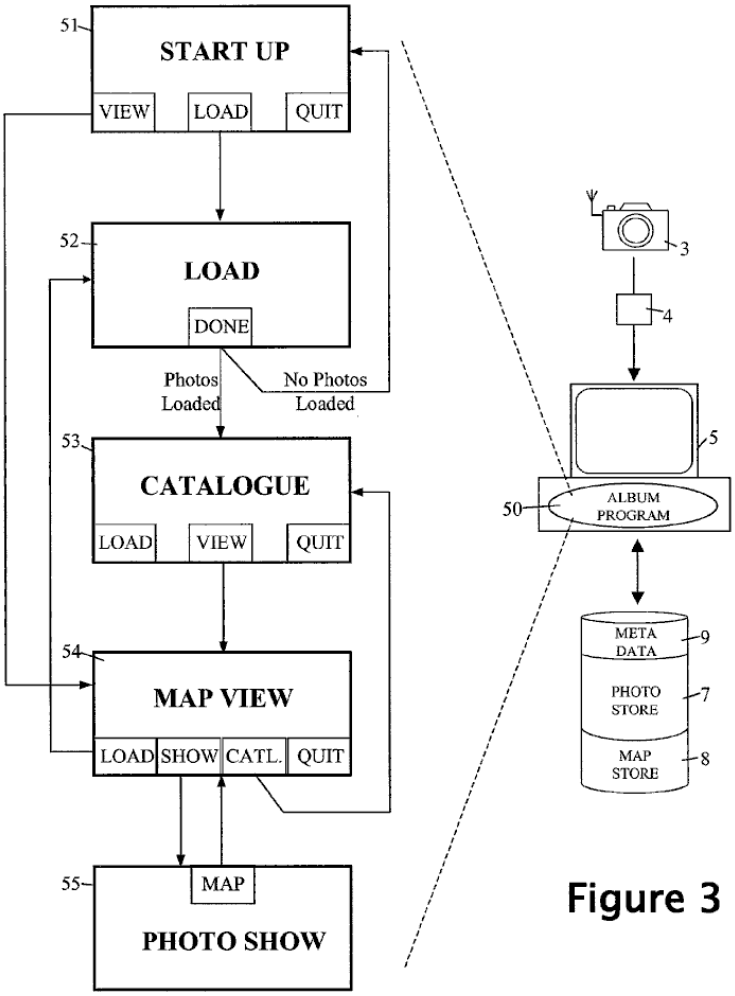


Figure 3

(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 may 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):

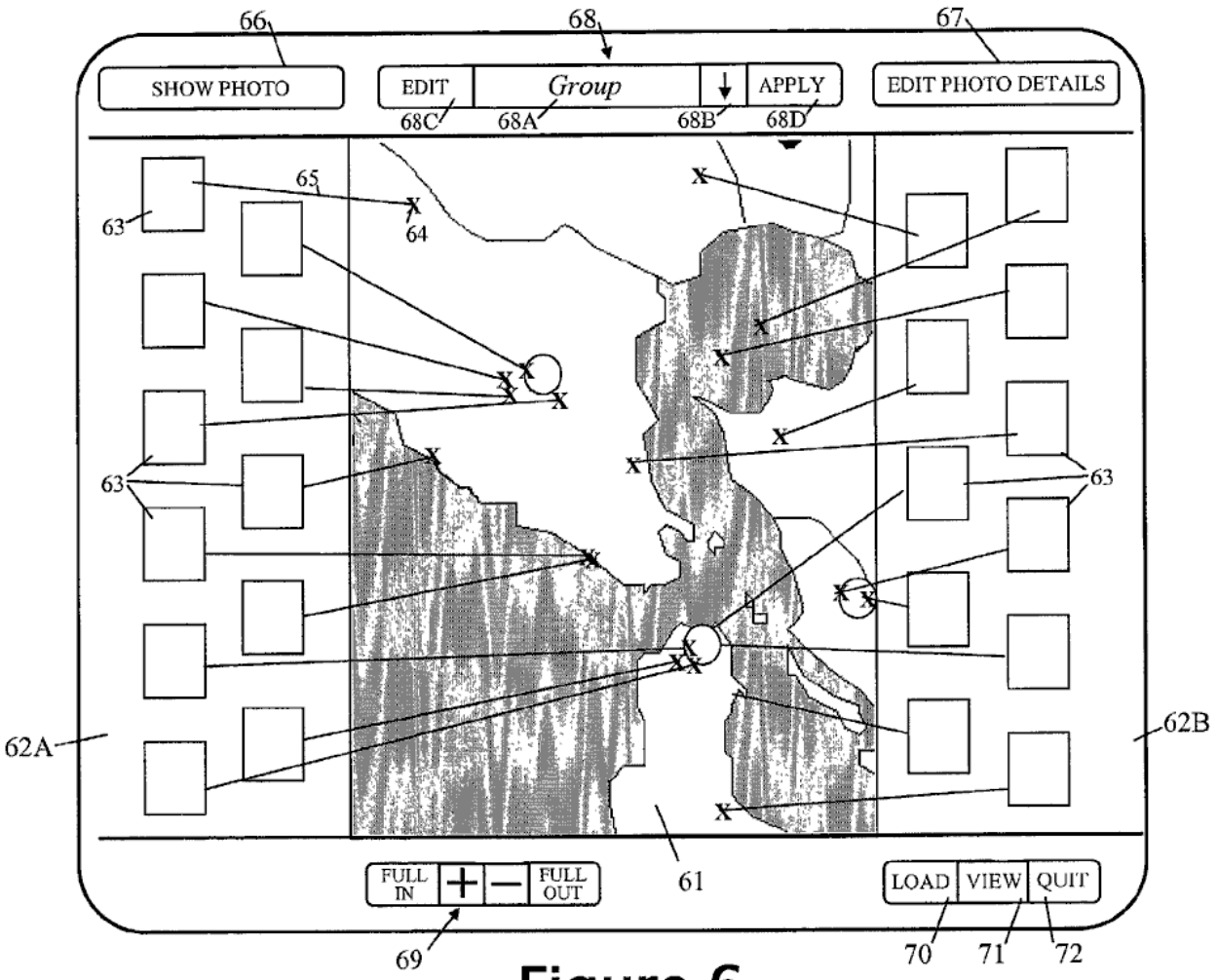


Figure 6

(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 **62**A, 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):

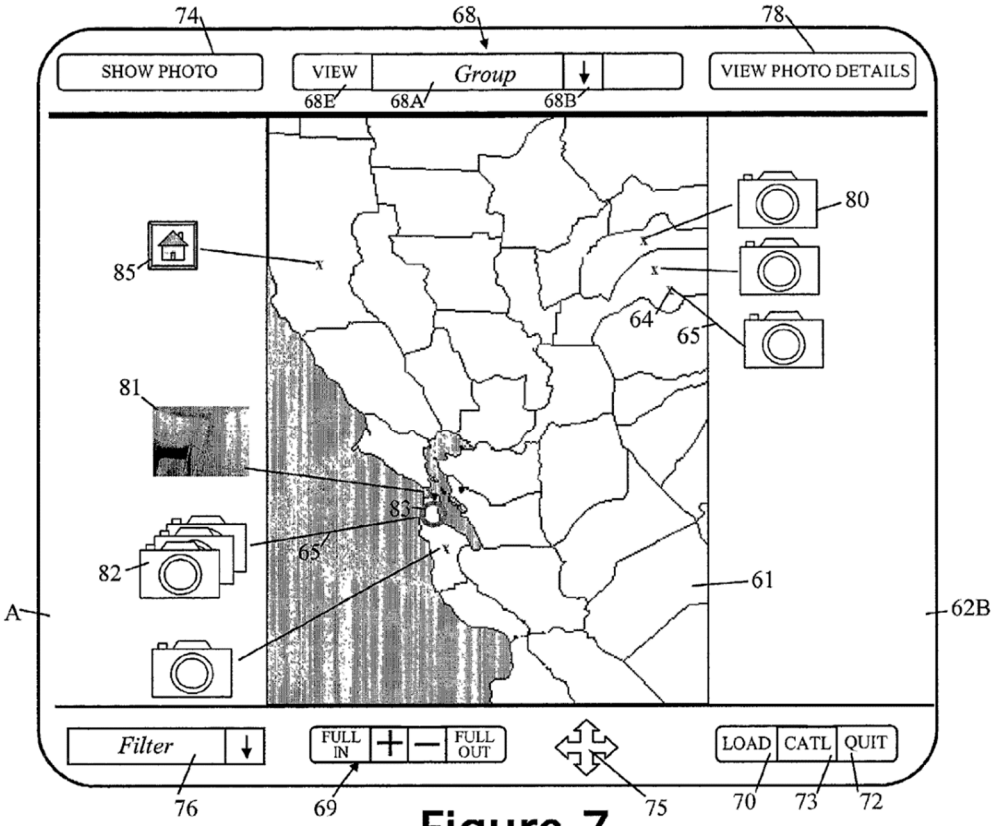


Figure 7

(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, Cheng and Ausems, with Squibbs): It would have been obvious to combine Neibauer, Cheng and Ausems with Squibbs, predictably resulting in the system and method for accessing clubs

using the club photo sharing feature, further adapted to integrate with the photo ("**at least one content item**") "**information associated with at least one wireless networking functionality of the mobile device to generate at least one integrated content item**," *i.e.,* the location information associated with a photo taken and uploaded by the club member. (EX1002, ¶132.)

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.[2] (EX1002, ¶132.) 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, ¶133.) Under the proposed combination, therefore, the club photo sharing feature would have been further adapted to display location information (for example on an electronic map) in association with the photo, resulting in "**at least one integrated content item**" that contains both the uploaded photo as well as

[2] Squibbs discloses an embodiment of a digital camera that is separate from the cellular phone used to upload photo image and location data. (Squibbs, Fig. 11, ¶0101.) As noted previously, the proposed combination relies on Ausems, which incorporates a digital camera into the mobile device. (EX1002, ¶132 n.4.)

location information as discussed above. This would also have been seen as a natural extension of map features already disclosed in Neibauer, as discussed below. (EX1002, ¶¶133, 135.) Squibbs is an analogous reference in the same field as the '578 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 for the user. (EX1002, ¶134.)

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, ¶135.) 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, ¶135.)

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, ¶135.) 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, ¶136.)

(c) "inserting the at least one integrated content item into the application-based information channel, the application-based information channel providing a second interface wherein two or more users share access to a plurality of content items including the at least one integrated content item." (1[c])

This limitation was largely covered in the discussion of limitation 1**[b]** above. Under the proposed combination, the integrated content item would have been inserted into and thus viewable through the club photo sharing feature. It would also have been obvious that the club photo sharing feature ("**the application-based information channel**") would have provided a second interface allowing two or more club members to share access to a plurality of uploaded photos, including the "**integrated content item**." Neibauer discloses a user interface for allowing club members to select a photo album and view the photos within the selected album. First, with respect to selection of an album:

Photo Albums

Showing 1 - 2 of 2 albums (1024 KB total) **Add Album**

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. This user interface, as noted above, has an "Add Photo" link to allow a member to add a new photo to the album. "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
The James Bond place to talk about the movies. 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 as noted above shows a list of photographs stored in an album. This user interface also has "Add Photo" button to

allow a member to add a new photo to the 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.) Neibauer thus discloses a "**second interface wherein two or more users share access to a plurality of content items**," because it discloses a user interface allowing multiple club members to share access to the photos posted to a photo album.

Under the proposed combination, the "**second interface**" would also have provided access to "**the at least one integrated content item**." In the case where the integrated content item comprises a photo with its accompanying textual message content (based on a "messaging action" or "collaboration action"), as explained for limitation 1**[b]** above, the interface described and shown above in Figure 21-10 allows club members to access both the photo and its accompanying textual name and description.

In the case where "**the integrated content item**" is a photo that integrates location information, under the proposed combination with Squibbs, the user interface in Neibauer would have been adapted to display the photo (or a thumbnail of the photo) with accompanying location information. 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 in connection with an electronic map showing where the photo was taken, as disclosed in Squibbs. As another example, the interface in Figure 21-10 could itself have been adapted based on Figures 6 and 7 of Squibbs, such that multiple photos in the album are displayed in thumbnail view on a map. Many other implementations would have been apparent and obvious to an ordinarily skilled artisan. (EX1002, ¶140.)

It also would have been obvious that the "**second interface**" would have been different from the "**first interface**" of limitation 1**[a]**. As explained, the "**first interface**" of limitation 1**[a]** includes the user interface for adding a new photo to a selected album; as explained, this interface is reachable by clicking "Add Photo" on the "**second interface**" described above – confirming that they are different user interfaces providing distinct functionality. (EX1002, ¶141.)

2. Claim 2: "The method of claim 1 wherein the information associated with said at least one wireless networking functionality of the mobile device comprises location information of the mobile device."

Under the proposed combination in view of Squibbs, as explained, the claimed wireless networking functionality information would have included location information of the mobile device. (EX1002, ¶¶132-133.)

3. Claim 3: "The method of claim 1 wherein integrating the at least one content item 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; [b] identifying additional content based on the obtained location information; and [c] generating the at least one integrated content item by combining the at least one content item with the additional content."

Claim 3 was covered in the discussion of limitation 1**[b]**. 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 "**identif**[ied] **additional content based on the obtained location information**," because the club photo sharing feature would have identified an electronic map or other location information ("**additional content**") based on the location information, and used it to "**generat**[e] **the at least one integrated content item by combining the at least one content item with the additional content**," by generating a display of the uploaded photo (or a thumbnail of it) alongside the electronic map showing the location. (EX1002, ¶143.)

4. Claim 4: "The method of claim 1 wherein integrating the at least one content item and the information associated with said at least one wireless networking functionality of the mobile device comprises: obtaining product-identifying information over at least one wireless network; and identifying additional content based on the obtained product-identifying information; and generating the at least one integrated content item by combining the at least one content item with the additional content."

As noted, the '578 patent makes clear that information associated with at least one wireless networking functionality can comprise a "messaging action" or "collaboration action" implemented over a wireless network. ('578, 6:5-17, Claim 6.) Claim 4 is obvious in view of the Yahoo! Classifieds feature in Neibauer.

Yahoo! Classifieds, described in the same chapter of Neibauer as Yahoo! Clubs, provides a feature for allowing users to post messages about items they wish to sell or purchase. (Neibauer, p.491.) This is shown in Figure 21-20:

Computers and Software Classifieds — Submit Your Free Listing!

Step 2 - Determine where to list your ad.

* *Indicates required information.*

* ZIP CODE 08403 (e.g. 99999)

Step 3 - Tell us about the item for sale.

CATEGORY Hardware - PC

AD TITLE

* CONDITION – Choose One –

* FOR SALE BY – Choose One –

* PRICE $ and/or Best Offer

* WARRANTY – Choose One –

* DESCRIPTION

FIGURE 21-20 Posting a classified ad

(Neibauer, p.491, Fig. 21-20.) As shown, a user posts an advertisement by entering product-identifying information such as in the ad title or description. (*Id.*)

It would have been obvious to apply the Yahoo! Classifieds teachings to the club photo sharing feature, predictably resulting in the photo sharing feature being used by club members to post messages and photos relating to items they are offering for sale. (EX1002, ¶145.) *See also Boston Scientific Scimed, Inc. v. Cordis Corp.*, 554 F.3d 982, 991 (Fed. Cir. 2009) ("Combining two embodiments disclosed adjacent to each other in a prior art [reference] does not require a leap of inventiveness."). For example, it would have been obvious for a member to provide product-identifying information about a product associated with an uploaded photo,

such as "For sale: 2002 Volkswagen Jetta!" (EX1002, ¶144.) This would have provided a clear advantage of not only specifically targeting club members (who are likely to have had similar interests), but the accompanying photos would have provided a more compelling advertisement when compared to a text-only advertisement. (EX1002, ¶145.)

It would also have been obvious to obtain product-identifying information "**over at least one wireless network**," because under the proposed combination, the information would have been sent to the photo sharing service over the Internet a wireless network. For example, Neibauer discloses in connection with the Yahoo! Mobile service that a mobile PDA could have included a "GSM Phone" modem. (Neibauer, p.171, ¶5.) GSM, which stands for **G**lobal **S**ystem for **M**obile Communication, was a dominant wireless (cellular) mobile network in widespread use in the United States the early 2000s. (EX1002, ¶146.) Cheng similarly discloses wireless network device connectivity. (Cheng, *e.g.*, 2:4-7, 5:33 ("a cellular telephone"), 23:44-51 ("… wireless communication (e.g., radio frequency (RF), and the like)").) It would have been obvious that the content by club members, under the proposed combination, would have been via mobile devices associated with a wireless network, such as a known cellular communications network (like GSM). (EX1002, ¶125.) A skilled artisan would have been motivated to allow mobile devices to provide content over a wireless network to take advantage of the growing

popularity of mobile and wireless computing. (EX1002, ¶¶146, 106.)

Claim 4 continues by reciting, "**identifying additional content based on the obtained product-identifying information**." Neibauer discloses that, in connection with a classified ad, additional content such as the price, condition, and warranty information would have been identified. (Neibauer, p.491. Fig. 21-20 (showing classified ad form showing required fields for price, condition, warranty).) Under the proposed combination, therefore, a photo-enabled classified ad posted to the photo sharing feature would have included this additional content, which would have been based on the product identifying information (*e.g.*, the price, condition, and warranty information for a 2002 Volkswagen Jetta). (EX1002, ¶147.)

Claim 4 concludes by "**generating the at least one integrated content item by combining the at least one content item with the additional content**," which would have occurred under the proposed combination because, as discussed for limitation 1**[b]**, the photo uploaded by the club member ("**the at least one content item**") is integrated with textual content provided by the user. Under the further combination with Neibauer's Yahoo! Classifieds disclosures, the generated integrated content item would have included the additional content such as the price, condition, and warranty information for the product. (EX1002, ¶148.)

5. Claim 5: "The method of claim 4 wherein the additional content comprises information relating to at least one of product ordering and product purchase support."

As explained for claim 4, the additional content would also have comprised pricing and sales conditions information ("**product ordering**") and warranty information from the seller ("**product purchase support**"). (Neibauer, p.491 ("Complete the form by describing the item and your sales conditions, and then click Submit Entry."), Fig. 21-20 (Condition, Price, and Warranty information).) It would have been apparent and obvious that many other well-known types of product ordering or purchase support information could have been provided, including whether the seller accepted returns or all sales were final, who payment and delivery/shipping were to be effectuated, among others. (EX1002, ¶149.)

6. Claim 6: "The method of claim 1 wherein the information associated with said at least one wireless networking functionality of the mobile device comprises one of: location-based service information; one or more messaging actions implementable over a wireless network; and one or more collaboration actions implementable over the wireless network."

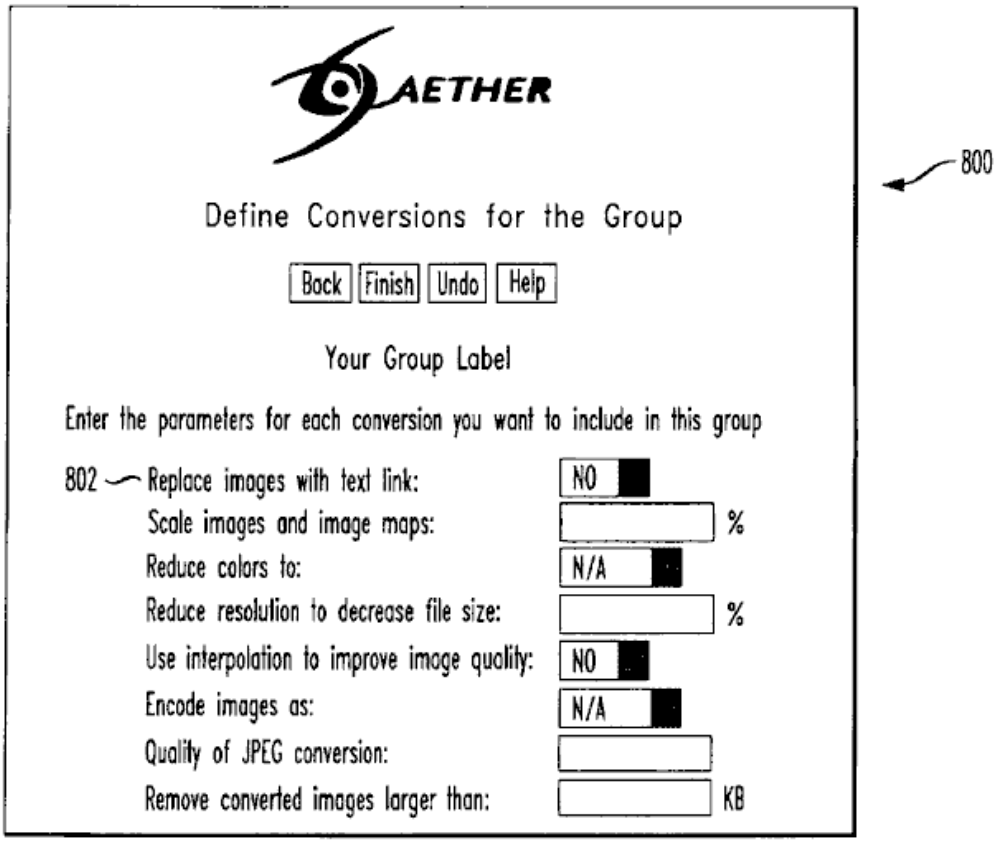
As fully explained for limitation 1**[b]**, the information associated with at least one wireless networking functionality can comprise either "**one or more messaging actions**" or "**one or more collaboration actions**," both of which would have been implemented over the wireless network. As also explained for 1**[b]**, the information associated with at least one wireless networking functionality would have comprised

location-based service information, *e.g.*, the location of the user as obtained either through the mobile radio infrastructure or via GPS. (Squibbs, ¶¶0098, 0101.)

7. Claim 7: "The method of claim 1 further comprising providing, via the first interface, one or more content integration options to the user."

Neibauer explains that, in connection with uploading a photo using the photo sharing feature, the member has the option of resizing the photo. (Neibauer, p.478, ¶4 ("Select an option from the Resize Photo section. Resizing allows Yahoo! to adjust the photograph to make better use of the club's Web space and make photos easier to view.").) Cheng similarly discloses that images can undergo a number of user-selected conversions:

FIG. 8



Define Conversions for the Group Page

(Cheng, Fig. 8.)

As shown, the user can define a number of conversions to reduce the size of an image including, among other things, scaling, color reduction, resolution reduction, and reducing the quality of the JPEG image conversion, among other things. (Cheng, 10:63-11:19.) The user can also specify a maximum file size for a converted image. (Cheng, 11:17-19, 12:47-50.)

It would have been obvious to also include these conversion options from Cheng with the photo sharing feature of Neibauer (along with its existing resizing capability), to provide the club member further control (via the first interface over the conversion of images for display on mobile devices. (EX1002, ¶152.) Any one

of the conversion options disclosed in Neibauer alone or in combination with Cheng qualifies as a "**content integration option**," because each option allows club members to specify how uploaded photos will be transformed before being integrated into the photo sharing feature. (*Id.*)

8. Independent claim 8: "A non-transitory computer-executable storage medium… [that] implements the steps of the method of claim 1."

Claim 8 adds nothing of patentable significance, as it would have been obvious that the steps of claim 1 would have been carried out by software code executed by a processing element of the communication system, such as a server that includes a processor and memory. (EX1002, ¶153; Cheng, *e.g.*, 23:16-20.) It would also have been obvious that the software used to carry out the functions of claim 1 would have been stored on at least one non-transitory computer-readable storage medium, such as a hard drive or random-access memory (RAM). (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 combination with Cheng, therefore, 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).

Petitioner notes that mapping the claimed "**processing element**" to origin web server **102** and proxy server **110** is consistent with the '578 patent, which makes clear that a processing element or server can itself comprise multiple servers. ('578, 9:21-24 ("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 required that the "**processing element**" be contained within 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, ¶154.) 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, ¶154.) 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. (*Id.*)

9. Independent claim 9

Claim 9 is little more than an apparatus counterpart to method claim 1. The claimed "**apparatus**" for claim 9 includes the web server providing the functionality of Neibauer (which also corresponds to the origin web server **102** in Cheng) and based on the combination with Cheng, proxy server **110** that reformats and translates the web pages from Neibauer for delivery to mobile device. (Cheng, 3:31-33.) As explained for claim 1, the origin web server and the proxy server in Cheng work together to carry out each of the claim steps. (EX1002, ¶155.)

(a) "a processing element comprising a processor coupled to a memory;" (9[a])

It would have been obvious that the claimed apparatus includes at least one "**processing element**," such as at least one server that includes a processor coupled to a memory as explained for claim 10. (EX1002, ¶¶156-157; Cheng, 23:16-20.) Claim 10, which depends from claim 9, expressly recites that "**the processing element comprises at least one server**," confirming that the claimed processing element can comprise servers.

It would have apparent and obvious that origin web server **102** in Cheng (which would have provided the features described in Neibauer), and proxy server **110**, under the proposed combination, would have comprised "**a processing element comprising a processor coupled to a memory**." (EX1002, ¶157.) Petitioner notes that mapping the claimed "**processing element**" as including a web server <u>and</u> proxy

server **110** is consistent with the '578 patent, as explained for claim 8. And as fully explained for claim 8 above, it would also have been obvious to combine origin server **102** and proxy server **110**, to the extent the claim were construed to impose such a requirement. (EX1002, ¶¶154, 157.)

(b) "the processing element providing at least a portion of a first interface…;" (9[b])

(c) "the processing element configured…" (9[c]-[e])

The remaining limitations 9**[b]-[e]** are substantially identical to the steps recited in limitations 1**[a]-[e]** and are therefore obvious for the same reasons. Each of these functions would have been carried out by "**the processing element**," as explained previously. (EX1002, ¶¶158-159.)

10. Claim 10: "The apparatus of claim 9 wherein the processing element comprises at least one server accessible over the Internet via a network interface."

As noted, the processing element comprises at least one server, 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.").) It would have been obvious that these servers would have been accessible over the Internet "**via a network interface**," as a network interface such as a communications port is a basic component for allowing a computer (such as a server) to communicate with other devices over a network such as the Internet. (EX1002, ¶161; Cheng, 23:44-51 ("Communications with external devices… occur utilizing communication port

1516….”); Neibauer, p.4 (explaining that Yahoo! members need access to an Internet connection).)

11. Independent claim 11: “A network-based communication system comprising a plurality of servers configured to communicate over a network, a given one of the servers comprising the apparatus of claim 9.”

This claim is obvious for the same reasons as claim 9. First, the proposed combination renders obvious “[**a**] **network-based communication system comprising a plurality of servers configured to communicate over a network**,” which would have included one or more origin servers **102** on the Internet that contain web page content, along with at least proxy server **110**. (Cheng, 3:49-53 (“In general, embodiments of the present invention contemplate that architecture **100** comprises <u>one or more servers **102**</u> having web content (in the form of at least one web page **104**), <u>a proxy server **110**</u>, at least one mobile device **108**, and at least one network **114**.”).) Claim 11 continues by reciting that “**a given one of the servers compris**[es] **the apparatus of claim 9**.” For purposes of claim 11, it would have been obvious that “**a given one of the servers**” would have corresponded to proxy server **110** in Cheng with origin server **102**, as noted, because the ’578 patent makes clear that a given server can comprise multiple servers. (’578, 9:21-24.) But to the extent the claim were interpreted to require a single server, as noted, it would have been obvious to combine proxy server **110** with origin server **102** to form a combined server for performing the functions of claim 9. (EX1002, ¶¶163, 154)

12. Independent claim 12

Claim 12 recites method limitations that are substantially similar to limitations recited in claim 1, and are thus obvious for the same reasons.

(a) "designating at least one content item…" (12[a])

(b) "providing information associated with at least one wireless networking functionality…" (12[b])

(c) "wherein the at least one content item…" (12[c])

(d) "wherein the at least one integrated content item..." (12[d])

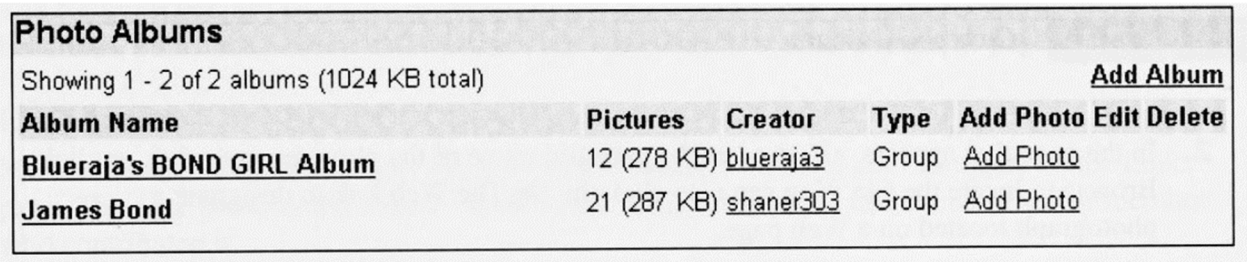
Limitations 12**[a]-[b]** are substantially similar to the limitations in 1**[a]-[b]**, and present no material differences here. Limitation 12**[a]** is substantially similar to but arguably broader than 1**[a]** as it does not recite the "**first interface**" limitation of 1**[a]**. Limitation 12**[b]** is substantially similar to 1**[b]** and simply flips the wording of the limitations; 12**[b]** recites "**providing information … for integration with the at least one content item**," 1**[b]** recites "**integrating the at least one content item and information**," an immaterial difference. The "**wherein**" limitations of 12**[c]-[d]** are already captured in 1**[b]**-1**[c]**. There are slight differences in wording, for example 12**[c]-[d]** are written as "**wherein**" clauses in passive voice, whereas 1**[b]-[c]** are written as active voice method steps, but they recite the same features and thus claim 12 is rendered obvious for the reasons stated for claim 1.

13. Claim 13: "The method of [claim] 12 wherein the information associated with said at least one wireless networking functionality of the mobile device comprises location information of the mobile device."

Claim 13 is obvious for the same reasons as claim 2.

14. Claim 14: "The method of claim 12 wherein providing the information associated with said at least one wireless networking functionality of the mobile device comprises: [a] providing one or more content integration options to a user; [b] receiving user input selecting at least one of the content integration options; and [c] determining the information associated with said at least one wireless network functionality of the mobile device in accordance with the selected content integration options."

As fully explained for claim 1, "**information associated with at least one wireless networking functionality**" can include information related to "messaging actions" or "collaboration actions" implementable over a wireless network. ('578, 6:5-17 & claim 6.) For purposes of claim 14, Neibauer discloses a "**content integration option**" in the form of a selection of the particular photo album in which the new photo will be placed. For example, the user interface below allows the user to add a photo to a particular photo album:



(Neubauer, p.477.) The user interface shown above lists a number of available photo albums, and has an "Add Photo" link next to each album to allow a member to add a new photo to that album. (Neibauer, p.477, ¶1.) The user can make a similar selection through Figure 21-10:

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 list of photographs stored in a particular album and also has an "Add Photo" button at the top right that allows a member to add a photo to the currently-displayed album. (Neibauer, p.477, ¶1 ("If you are looking at the list of photos already in an album, click the Add Photo button on the top of the page.").)

In either scenario, Neibauer discloses "**providing one or more content integration options to a user**," *i.e.*, providing options to select a particular photo album where the photo will be integrated, and "**receiving user input selecting at least one of the content integration options**," *i.e.*, when the user selects a particular photo album to which the photo will be integrated.

Finally, the proposed combination renders obvious "**determining the information associated with said at least one wireless network functionality of the mobile device in accordance with the selected content integration options**." Under the proposed combination as fully explained for limitation 1**[b]**, when the wireless networking functionality information is associated with a messaging or collaboration action, this information would have included textual message information provided by the club member when uploading the photo, such as the textual name and description. This information would have been determined "**in accordance with the selected content integration options**," as claimed, because that textual message would have been obtained, stored, and later displayed in connection with the particular album selected by the club member that provided it. For example, the top entry in the exemplary club photo album of Figure 21-10 is for a photo named "Denise Richards" described as "Stunning blue bikini," and this information is shown as being part of "Blueraja's BOND GIRL Album," the album selected by that club member for that photo. (EX1002, ¶¶169-170.)

15. Claim 15: "The method of claim 12, wherein the at least one content item comprises at least one of device-captured video data, device-captured audio data and device-captured image data."

As fully explained for limitation 1**[a]**, the content item comprises at least device-captured image data.

16. Independent claim 16: "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 implements the steps of the method of claim 12."

This claim is identical to claim 8 except that claim 16 refers to claim 12, whereas claim 8 refers to claim 1. Claim 16 is thus obvious for the same reasons.

17. Independent claim 17

Claim 17 is substantially similar to claim 9 except that it recites and is written from the standpoint of "**a mobile device**," whereas claim 9 appears to have been written from the standpoint a processing element such as a server.

Claim 17 is nevertheless obvious for the same reasons as claim 9, as the same club functionalities provided by the servers under the proposed combination are accessed by and used by the mobile devices used by club members. The preamble recites "[**a**] **mobile device comprising**," and under the proposed combination, the mobile device corresponds to the mobile device used by a club member to access the photo sharing feature. Cheng states that, in one example, mobile device **108** is a mobile device with a Palm operating system that includes a web browser. (Cheng,

5:17-23, 2:8-15; *see also* Neibauer, p.166 ("Yahoo! Mobile lets you get many Yahoo services on mobile devices, including…. Web phones….").)

(a) "a processing element comprising a processor coupled to a memory;" (17[a])

(b) "a network interface …" (17[b])

The mobile device would have included a processing element "**comprising a processor coupled to a memory**," which are basic components of any computing device. (*See* Ausems, 5:49-54 ("PDA telephone **100** includes… a PDA engine **390**."), 7:53-56 ("Referring now to FIG. 3, PDA engine **290**… <u>includes central processing unit (CPU)</u> **305**, <u>random access memory</u> (RAM) **310**, <u>read only memory</u> (ROM) **315**…."), 7:60-62 ("<u>RAM **310** is coupled to CPU **305**</u> and is used as a temporary storage area for data processed by CPU **305**."), 7:63 ("<u>ROM **315** is coupled to CPU **305**</u>.").) The mobile device would also have included "**a network interface**" in order to allow it to wirelessly communicate over a network. (EX1002, ¶176.) Ausems discloses, for example, a network interface that includes "[w]ireless phone engine **210** [that] transmits and receives audio data via antenna **110**, as well as text and images," as well as modem **220** that "enables PDA telephone to… have Internet access." (Ausems, 5:56-58, 5:66-6:1.)

(c) "the processing element being configured to:" (17[c])

(d) "designate at least one content item for insertion into an application-based information channel, the at least one content item comprising media data captured by the mobile device; and" (17[d])

(e) "provide information associated with at least one wireless networking functionality of the mobile device for integration with the at least one content item;" (17[e])

With respect to 17**[d]**, as explained for 1**[a]**, the club member via its mobile device designates at least one content item (*e.g.* photo) for insertion into the club photo sharing feature, by selecting a photo to upload using the user interface presented in the web browser in the device. With respect to 17**[e]**, as explained for 1**[b]-[c]**, based on Neibauer and under the further combination with Squibbs, the mobile device provides the claimed information associated with at least one wireless networking functionality as claimed. It would have been obvious that of these functions would have been carried out by "**the processing element**" in the mobile device, as recited in limitation 17**[c]**, as the mobile device processor would have been responsible for carrying out the software for the web browser and transmitting information to the servers. (EX1002, ¶177.)

(a) "wherein the at least one content item..." (17[f])

(b) "wherein the at least one integrated content item…" (17[g])

These limitations are identical to limitations 12**[c]-[d]**, respectively, and are

rendered obvious for the same reasons.

18. Claim 18: "The mobile device of claim 17 wherein the mobile device comprises one of a mobile telephone, a tablet computer and a camera."

19. Claim 19: "The mobile device of claim 17 wherein the mobile device comprises a global positioning system (GPS)-based navigational device."

The mobile device comprises at least a mobile telephone, camera and GPS-based navigational device. (Ausems, *e.g.*, 3:5-8 ("FIGS 1*a*-1*d* illustrate PDA telephone **100** that provides the combined functionality of a Personal Digital Assistant (PDA) and a wireless telephone…."), 2:5-6 ("[T]he device also includes [a] digital camera for recording images…."), 5:38-47 ("… PDA telephone **100** includes a Global Position System (GPS) receiver/engine having an associated antenna **195** for receiving signals from GPS satellites… The use of such GPS technology may allow for the inclusion of mapping and other features associated with conventional GPS devices.").)

20. Independent claim 21

Claim 21 recites a method with steps that are substantially similar to claim 1.

(a) "providing a first interface…" (21[a])

(b) "wherein information associated with at least one wireless networking functionality…" (21[b])

(c) "wherein the at least one integrated content item is inserted…" (21[c])

Limitations 21**[a]-[c]** are substantially similar to 1**[a]-[c]** and are rendered

obvious for the same reasons. There are slight differences in wording, for example 21**[b]-[c]** are written as "**wherein**" clauses in passive voice, whereas 1**[b]-[c]** are written as active voice method steps, but they recite the same features which are rendered obvious for the reasons previously stated.

21. Independent claim 22

Claim 22 also recites a method with steps similar to claim 1.

(a) "accessing a first interface…" (22[a])

(b) "providing at least one content item to at least one server for insertion…" (22[b])

Claim elements 22**[a]-[b]** are substantially similar to limitation 1**[a]**, except that 22**[a]-[b]** breaks the same functions into two limitations. Limitation 22**[b]** adds that the content item is provided "**to at least one server**," and under the proposed combination as explained for 1**[a]**, the content item would have been sent to at least origin server **102** (providing the features of Neibauer) and under the combination with Cheng, proxy server **110** (which sits between the mobile device and origin server **102** and translates Neibauer's features for the mobile device).

(c) "providing information associated with at least one wireless networking functionality of the mobile device to said at least one server responsive to user input;" (22[c])

As explained for limitation 1**[b]**, under the proposed combination, information associated with at least one wireless functionality is sent by the mobile device. As

explained for limitation 22**[b]**, this information is sent "**to said at least one server**," claimed. This information would have been provided "**responsive to user input**," because it would have occurred in response to input by the club member in providing a photo for inclusion in an album using the photo sharing feature.

(d) "wherein the at least one content item…" (22[d])

(e) "wherein the at least one integrated content item… (22[e])

Limitations 22**[d]-[e]** are substantially identical to limitations 12**[c]-[d]**, respectively, and are obvious for the same reasons. (EX1002, ¶186.)

D. Ground 2: Obviousness in Further View of Harvey.

Ground 2 is substantially the same as Ground 1 except that it adds 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, this ground need not be further considered.

As explained for Ground 1, limitation 1**[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 Ground 2, 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, ¶119.) 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 <u>before</u> the community is created and launched. As noted, Harvey explains that "[t]he community creating module permits the creator to create a community, and <u>designate applications and content presented</u> 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 Ground 1 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, ¶¶190-191.) Harvey is an analogous reference and would have been reasonably pertinent to problems facing the inventors. (EX1002, ¶192.)

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, ¶193.) 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, ¶194.)

VII. CONCLUSION

Petitioner respectfully requests IPR institution.

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 13,531 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. 9,619,578 B2,** including all exhibits (**Nos. 1001-1003, 1005-1006, 1010-1013, 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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UNITED STATES

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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