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 IPR2024-00246
U.S. Patent No. 8,793,336 B2
Issue Date: July 29, 2014

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. 8,793,336 B2

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(a) "providing a first web-based interface accessible to a first user, the first web-based interface being configured to permit the first user to activate a given mobile information channel for sharing content between the first user and one or more additional users; and" (1[a]) 13

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(b) "generating a second web-based interface different than the first web-based interface, wherein the second web-based interface provides each of the one or more additional users access to at least a portion of the shared content via the given mobile information channel to thereby facilitate interaction between the first user and the one or more additional users;" (1[b]).....30

(c) "wherein the given mobile information channel supports messaging between the first user and the one or more additional users over a wireless network; and" (1[c]) 34

(d) "wherein the mobile information channel is configured to permit the first user to send messaging content to the one or more additional users and to receive messaging content from the one or more additional users." (1[d]) 36

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3. Claim 7: "The method of claim 1 wherein the shared content is obtained from a device-captured data source of the first user, said device-captured data source comprising a source of at least one of device-captured video data, device-captured image data, device-captured audio data and device-captured location coordinates." 39

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4. Claim 8: "The method of claim 1 wherein the first web-based interface permits the first user to upload at least one information item, and wherein the second web-based interface provides said one or more additional users with access to said at least one uploaded information item in accordance with accessibility rules established by the first user via the first web-based interface." 40

5. Claim 9: "The method of claim 1 wherein the one or more additional users comprise individuals that with the first user and by mutual consent collectively comprise a group of members that have access to at least a portion of said shared content via the second web-based interface." 44

6. Claim 10: "A non-transitory computer-readable storage medium having embodied therein executable code of one or more software programs for use in managing information content in a network-based communication system, wherein said executable program code when executed by a processing element of the communication system implements the steps of the method of claim 1." 45

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   (a) "a processing element comprising a processor coupled to a memory;" (11[a]) 47

   (b) "the processing element providing at least a portion of a first web-based interface…;" (11[b]).....48

   (c) "the processing element generating a second web-based interface…;" (11[c]) 48

   (d) "wherein the given mobile information channel supports messaging…; and" (11[d]).....48

   (e) "wherein the mobile information channel is configured to permit…." (11[e]) 48

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    (b) "at least one of the servers providing at least a portion of a first web-based interface…;" (15[b]).....50

    (c) "wherein said at least one server generates a second web-based interface…;" (15[c]).....50

    (d) "wherein the given mobile information channel supports messaging…" (15[d]).....51

    (e) "wherein the mobile information channel is configured to permit…." (15[e]) 51

11. Claim 16: "The method of claim 1 further comprising maintaining a contact list for the given mobile information channel, the contact list comprising the one or more additional users." 51

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13. Claim 18: "The method of claim 17 wherein distributing advertising content comprises inserting advertising content along with messaging content in the given mobile information channel." 54

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18. Claim 25: "The method of claim 1 wherein at least a portion of the shared content is authored by the first user." 56

19. Claim 26: "The method of claim 1 wherein the first web-based interface is configured to allow the first user to title the given mobile information channel." 56

20. Independent Claim 27 58

(a) "generating a given mobile information channel for sharing content authored by a first user with one or more additional users; and" (27[a]) 58

(b) "providing each of the one or more additional users access to at least a portion of the shared content via the given mobile information channel to facilitate interaction between the first and additional users;" (27[b]) 59

(c) "wherein the given mobile information channel supports messaging…; and" (27[c]) 59

(d) "wherein the mobile information channel is configured to permit…." (27[d]) 59

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1. Claim 21: "The method of claim 1 wherein the messaging content comprises personalized messaging content for the first user." 61

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List of Exhibits

Exhibit No.	Description of Document
1001	U.S. Patent No. 8,793,336 B2 to David Walker Harper et al. (filed February 2, 2012, issued July 29, 2014) ("'336" or "'336 patent")
1002	Declaration of Vijay K. Madisetti, Ph.D. ("Madisetti")
1003	Excerpts from Alan Neibauer, *How to Do Everything With Yahoo!* (2000) ("Neibauer")
1004	PCT Application WO 00/17775 to Craig Miller et al. (filed September 22, 1999, published March 30, 2000) ("Miller")
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	U.S. Patent Application Publication No. 2004/0198396 A1 to Frank E. Fransioli (filed April 24, 2004, published October 7, 2004) ("Fransioli")
1008	U.S. Patent Application Ser. No. 10/827,881, filed May 8, 2000 (parent/priority application to **EX1007**)
1009	Redline comparison between **EX1007** and **EX1008**.
1010	U.S. Patent No. 6,487,583 B1 to Jamey Harvey et al. (filed February 25, 2000, issued November 26, 2002) ("Harvey")
1011	***RESERVED***
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")

List of Exhibits

Exhibit No.	Description of Document
1014-1021	***RESERVED***
1022	File history of U.S. Patent No. 8,793,336 B2
1023	Excerpts of file history of *Ex Parte* Reexamination of U.S. Patent No. 8,793,336 B2
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 '336 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 first served on December 6, 2022. (EX1027.) The '336 patent is also the subject of a pending *ex parte* reexamination (Control No. 90/019,221) filed by third party Unified Patents, LLC, which recently generated a first Office Action rejecting claims 1, 11, 15, and 27. (EX1023, 00155-00181.) Petitioner was not involved (and is not involved) in that reexamination.

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 ’336 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 '336 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, 6-11, 13-18, 20-21, 23-27	Neibauer (**EX1003**), Miller (**EX1004**), Cheng (**EX1005**)
2	7	**Ground 1** Prior Art + Ausems (**EX1006**)
3	21-22	**Ground 1** Prior Art + Fransioli (**EX1007**)
4	1, 6-11, 13-18, 20-21, 23-27	**Ground 1** Prior Art + Harvey (**EX1010**)
5	7	**Ground 2** Prior Art + Harvey
6	21-22	**Ground 3** Prior Art + Harvey

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)

<u>§314(a)</u>: The *General Plastic* factors are not relevant as this is the first and only IPR petition filed by Petitioner with respect to the '336 patent. As noted in

Part I.B above, the '336 patent is the subject of a pending *ex parte* reexamination filed by Unified Patents, LLC that recently generated a first Office Action rejecting all challenged claims. Petitioner had no involvement in the preparation of filing of the *ex parte* reexamination, which relies on entirely different prior art and challenges only claims 1, 11, 15 and 27.

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 Miller (**EX1004**), Ausems (**EX1006**), Harvey (**EX1010**), and Fransioli (**EX1007**), as none of these references was presented during prosecution.

But two relied-on references were considered during prosecution – Neibauer (**EX1003**) and Cheng (**EX1004**). But the sole mention of these references during prosecution was their inclusion on Information Disclosure Statements filed by the Applicants that were considered by the Examiner. (EX1022, 00243 & 00265

(excerpts of Neibauer), 00273 (Cheng).) These references were cited along with hundreds of other prior art references cited during prosecution.

Petitioner respectfully submits that the Examiner's consideration of Neibauer and Cheng does not raise § 325(d) issues in light of the uneventful prosecution history. An initial Office Action issued on May 19, 2014, rejecting the claims based entirely on double-patenting grounds based on an earlier patent in the same family, U.S. Patent No. 8,135,801. (EX1022, 00237-00240.) No rejections were entered based on prior art. The applicants traversed the double-patenting rejection by noting that the '801 patent was the subject of a pending *inter partes* reexamination in which the claims had been amended, but applicants nevertheless filed a terminal disclaimer. (EX1022, 00339-00342.) The Examiner subsequently issued a Notice of Allowance with respect to all claims. (EX1022, 00352-00359.) In his statement of reasons for allowance, the Examiner identified U.S. Patent No. 7,277,927 B2 to David Rensin as the closest prior art, but stated that it did not disclose "**a second web-based interface**" and other limitations in the independent claims. (EX1022, 00357.) Rensin was not otherwise mentioned during prosecution.

Petitioner respectfully submits that the Examiner materially erred in failing to rely on Neibauer and Cheng to reject the challenged claims. These references confirm that all limitations of the challenged claims were disclosed by and rendered obvious in view of the prior art – including the limitations that the Examiner found

missing from Rensin. (EX1002, ¶¶126-129.) In fact, the PTO actually cited and relied on both Neibauer and Cheng in the successful reexamination of the patent '801 patent (to which the '336 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.)

IV. OVERVIEW OF THE PATENT

A. Level of Ordinary Skill

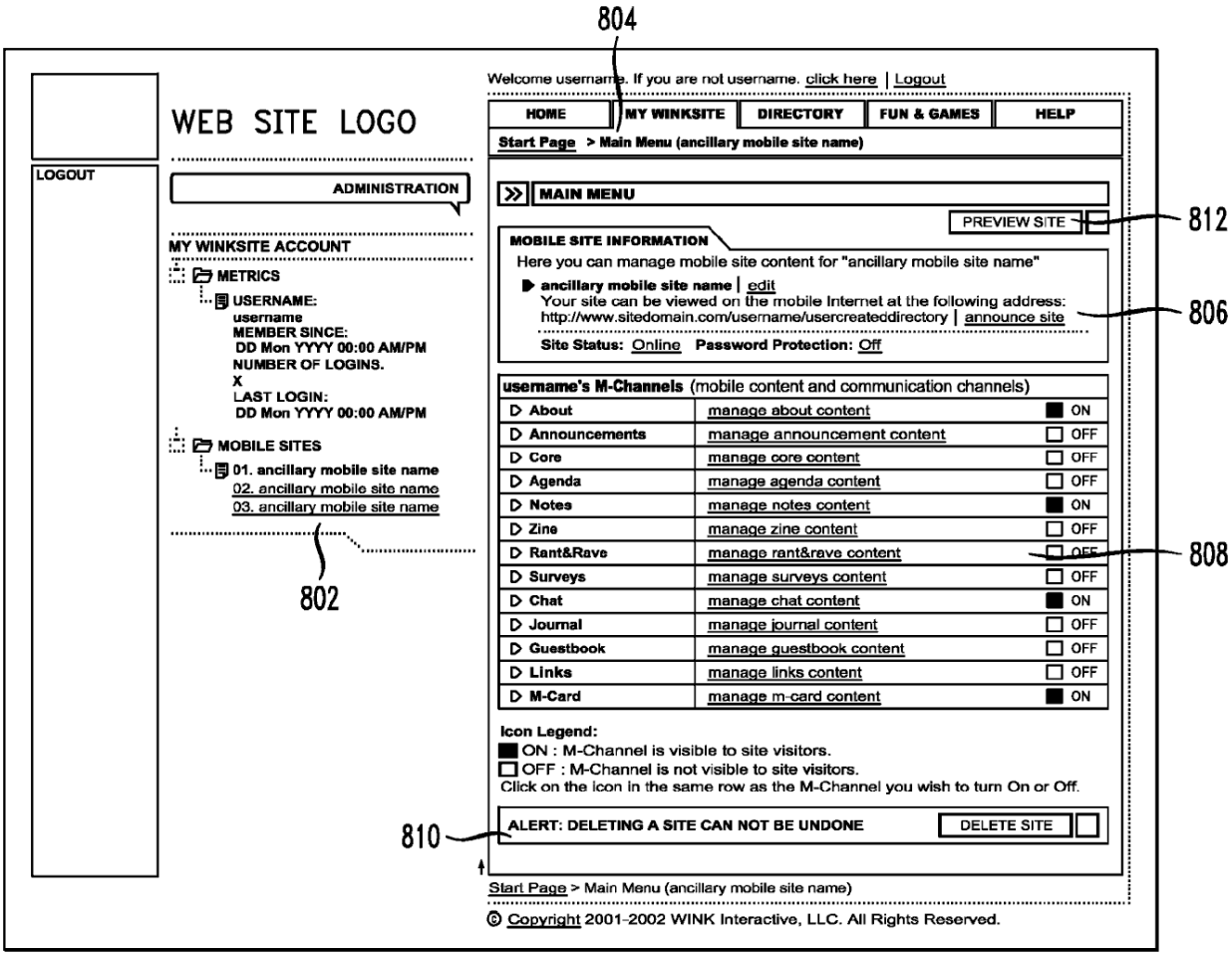
A person of ordinary skill would have possessed a bachelor's degree in electrical engineering, computer science, or similar field, with two years of experience in developing and implementing network-based computer systems that interact with mobile devices, such as systems for storing and retrieving information over the Internet or communicating using the Web using wireless mobile devices. (EX1002, ¶¶14-18.)

B. Specification Overview

In one embodiment, the '336 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…." ('336, 5:18-23.) 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

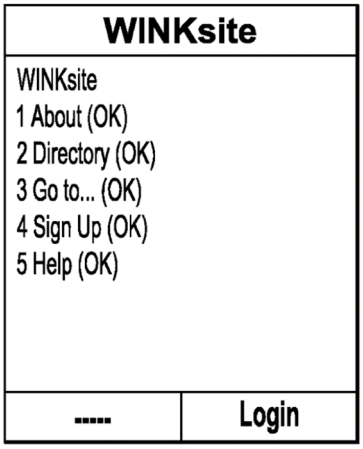


('336, Fig. 8.) "FIG. 8 shows an example of a main menu page of the content management site for managing a given mobile site associated with a system user." ('336, 13:40-42.) Figure 8, as shown, includes mobile website information **806** and M-channel information **808** making mobile information channels visible on the mobile website. ('336, Fig. 8, 13:42-50.) These M-channels are "utilized at the

content management site… to facilitate the generation of mobile sites and the management of associated content." ('336, 8:8-11.) 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**." ('336, 8:12-18; *see also id.*, 8:27-41 (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**." ('336, 5:23-27.) An example screen display from a mobile website is shown in Figure 24a (at right). ('336, 3:27-29, 14:64-67.) 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." ('336, 14:55-59.)

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 under any other reasonable construction. Petitioner therefore respectfully submits that, 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 ’336 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, message boards, real-time chat, and other features. (EX1002, ¶¶51, 97-99; Neibauer, pp.477-480.) Neibauer also discloses the ability to access Yahoo! services via mobile devices such as cell phones. (EX1002, ¶56; Neibauer, pp.166-174.) Neibauer is a strong reference that discloses the majority of the claim limitations and, as explained in **Part III.C** above, was relied upon by the PTO in rejecting all claims of the parent patent of the ’336 patent in a prior reexamination, to which the ’336 patent was 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, ¶¶63-68, 120-122.) As noted in **Part III.C** above, Cheng was also cited in the successful reexamination of the parent to the '336 patent.

The additional references are cited primarily for ancillary features or to account for claim construction positions proposed in the pending litigation. Miller (**EX1004**) is cited for disclosing the ability of a user to create a web-based community and specify the specific features (*e.g.* message board, etc.) to include. (EX1002, ¶¶59, 103-104.) Ausems (**EX1006**) is cited in Ground 2 for dependent claim 7, and Fransioli (**EX1007**) in Ground 3 for dependent claims 21-22.

Grounds 4-6 are substantially similar to Grounds 1-3, respectively, but add Harvey (**EX1010**), solely to account for a potential construction of "**mobile information channel**" proposed by Petitioner in the pending litigation. If the Board chooses not to adopt that construction here, it need not consider these grounds.

B. Prior Art Status of Relied-Upon References

Pre-AIA law applies to the challenged claims, and each reference cited in the grounds listed in **Part III.B** qualifies as prior art to the '336 patent. 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.) Miller also qualifies as prior art under § 102(b) because it is a PCT application published more than one year before the priority date. Cheng, Ausems, and Harvey qualify as prior art under § 102(e) because they issued from applications filed before the priority date. Fransioli qualifies as prior art under § 102(e) because it is a published patent application filed on October 19, 2004, as a direct continuation to U.S. Patent Application No. 09/955,456 (EX1008), filed on May 8, 2000, introducing no substantive differences. (EX1009; EX1002, ¶75.)

C. Ground 1: Claims 1, 6-11, 13-18, 20-21, 23-27 Are Obvious Over Neibauer In View Of Miller and Cheng.

1. Independent Claim 1

As explained in detail below, Neibauer discloses features of a Yahoo! service known as Yahoo! Clubs. (Neibauer, pp.473-483.) As Neibauer explains, "[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, as described in more detail for limitation 1**[a]**. (Neibauer, pp.480-82.) An exemplary club created by a member is shown in Figure 21-13:

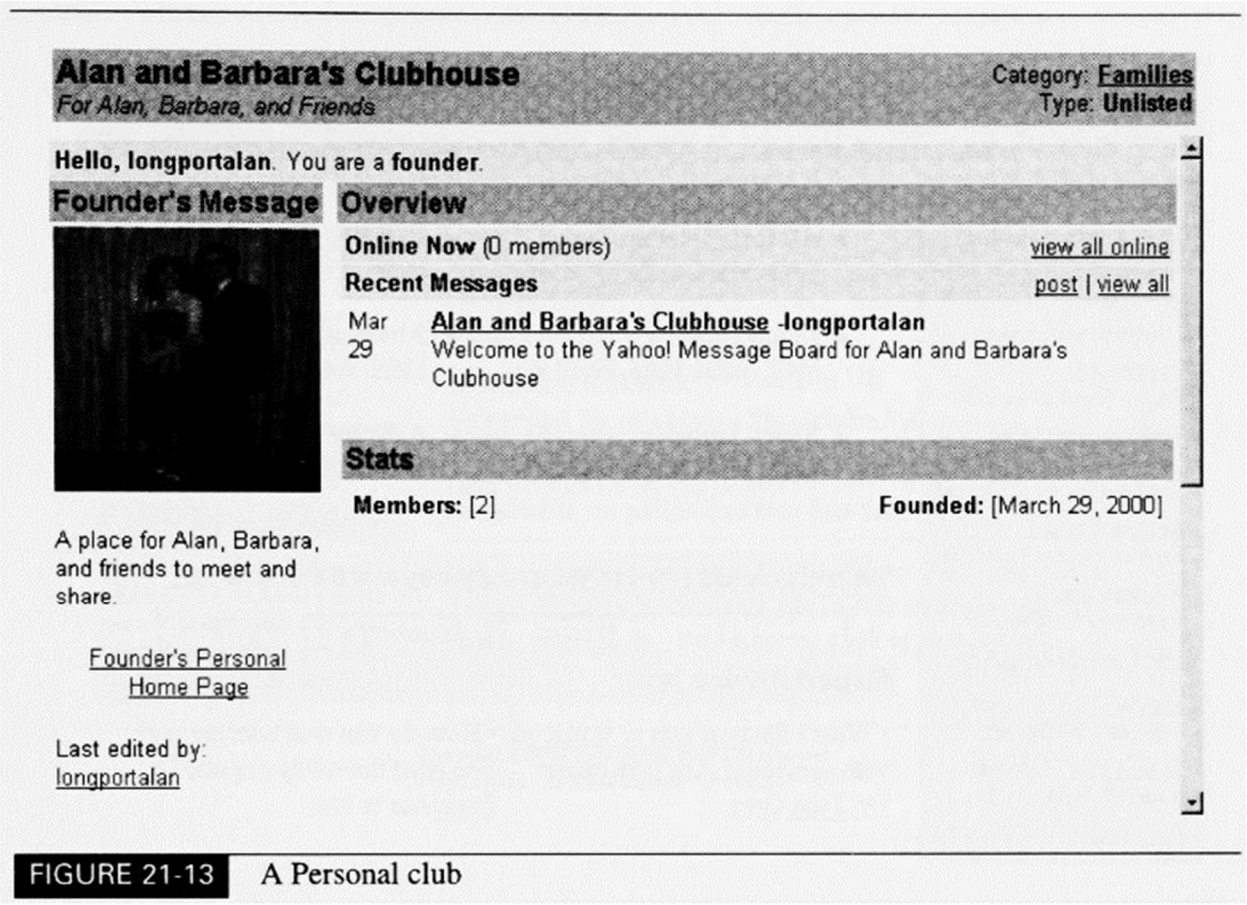


FIGURE 21-13 A Personal club

(Neibauer, p.483, Fig. 21-13.)

To the extent the preamble is limiting, Neibauer discloses "[**a**] **method for managing information content in a network-based communication system**." 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. For example, the club founder can "control the contents of photo albums, and customize the photo and messages on the club's home page," among other capabilities. (Neibauer, p.480; *see also id.*, pp.478-479.)

Neibauer also discloses managing information content "**in a network-based communication system**," *i.e.*, the Internet. (EX1002, ¶92.)

(a) "providing a first web-based interface accessible to a first user, the first web-based interface being configured to permit the first user to activate a given mobile information channel for sharing content between the first user and one or more additional users; and" (1[a])

Most of the key limitations of claim 1 are introduced in this limitation, and thus, will be covered in this section. The step of providing "**a first web-based interface**" takes place in Neibauer when a web-based interface is provided to a user to create a new club ("**accessible to a first user**"). In particular, the club founder ("**first user**") can access a web form that solicits options for creating a new club:

> **Creating a Club**
>
> If you cannot find a club where your interests are discussed or you want to share information privately by means of a club, create your own club. As the club founder, you can invite others to join, delete members, control the contents of photo albums, and customize the photo and messages on the club's home page.
>
> To create a club, follow these steps:
>
> **1**. Navigate to the category in which you want the club to be listed.
>
> **2**. Click Create Club.
>
> **3**. In the form that appears, choose the identity you want to use as the club founder and Click Here to Continue. You see the form shown in Figure 21-12.
>
> **4**. Enter a name for the club.

5. Optionally, enter your zip code. Choose the country if you are outside of the United States.

6. Choose to create a Listed or Unlisted Club.

7. Click Yes! I Accept.

You'll see a page that tells you the club has been created. The page shows the club name and its Web address.

(Neibauer, pp.480-481 (bold in original).) The form shown in Figure 21-12 referenced in step **(3)** above, is reproduced below:

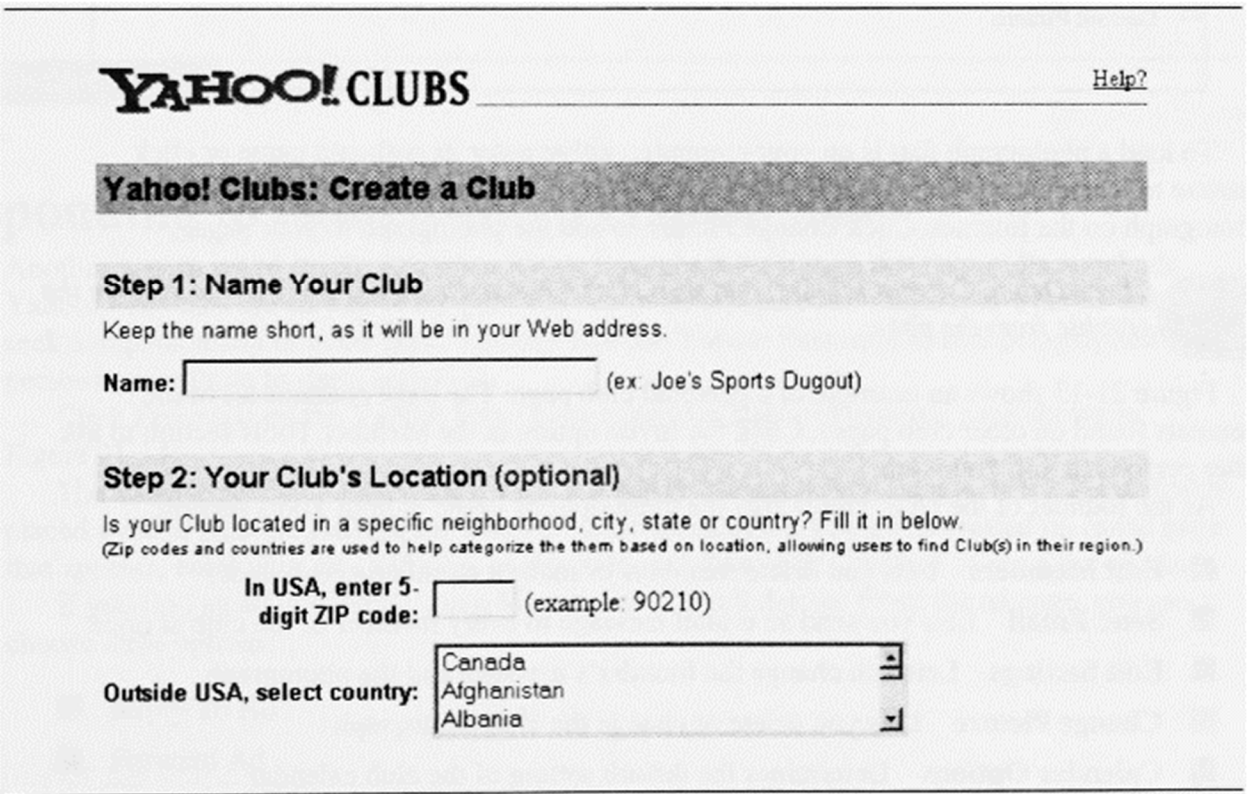


FIGURE 21-12 Creating a club

(Neibauer, p.481, Fig. 21-12.) After the user makes the required selections and then clicks "**Yes! I Accept**," as Neibauer explains:

You'll see a page that tells you the club has been created. The page

shows the club name and its Web address.

(Neibauer, p.481.)

For purposes of claim 1, the "**first web-based interface**" includes the user interface that the club founder ("**first user**") uses to create the club as discussed above – but does not include the webpages for the actual created club, to which Petitioner has mapped the "**second web-based interface**" for limitation 1**[b]** below. It would have been obvious that the club-creation interface above qualifies as a "**web-based interface**" because it is provided to the club founder via web pages delivered over the Internet to a web browser. (EX1002, ¶95.)

The first web-based interface in Neibauer is also "**configured to permit the first user to activate a given mobile information channel for sharing content between the first user and one or more additional users**." Neibauer discloses three features that each independently discloses a mobile information channel.

First, Neibauer explains that the club will include a private message board. "A message board can be compared to a bulletin board on an office wall. It's a place to leave messages to others and to read their replies." (Neibauer, p.468.)

Club Messages

Every club has its own private message board. Recent messages posted to the board are shown on the club's home page. Click Post on the Recent Messages banner to add your own comment to the board, or click View All or Messages in the Our Pages section to access the entire

> board.

(Neibauer, p.477 (bold in original); *see also id.*, pp.469-471 ("Accessing Message Boards" section describing process for posting a new message).)

As a second example of a mobile information channel, Neibauer discloses a chat feature that allows users to engage in real-time messaging communications:

> **Club Chat**
> The Chat option in the Our Pages section opens a private chat area for club members. There is also a Chat section on the page that lists the members who are currently chatting. Click on the Chat section header to enter the Chat.

(Neibauer, p.479 (bold in original).)

Third, Neibauer discloses a photo sharing feature that allows club members to share photos and other graphics:

> **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.

(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. (Neibauer, p.478, ¶¶2-3.)

Each of these club features discloses a mobile information channel configured

"**for sharing content between the first user and one or more additional users**," because each feature can be used for sending and receiving content between club members such as club message board or chat messages, or photographs with accompanying textual names and descriptions. (EX1002, ¶¶96-100.)

Neibauer's disclosures are consistent with exemplary "**mobile information channels**" in the written description of the '336 patent. The '336 patent explains that mobile information channels or "M-channels" permit "unsophisticated users to easily and efficiently author message data 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**." ('336, 8:11-17.)[1] In fact, the '336 patent expressly identifies, as examples of mobile information channels, "discussion forum," "chat," and "photo blog" ('336, 8:27-38), which mirror the club message board, chat, and photo sharing features, respectively, described in Neibauer. Petitioner will provide a separate discussion below as to why the information channels in Neubauer qualify as "**mobile**" information channels, based on Neibauer alone and in view of Cheng.

The club founder in Neibauer can also "**activate**" the above mobile information channels via "**the first web-based interface**." As noted previously,

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

after the founder makes the required selections for the club and clicks "**Yes! I Accept**" on the club creation form, the founder will "see a page that tells [them] the club has been created. The page shows the club name and its Web address." (Neibauer, p.482.) The founder therefore activates each mobile information channel by taking actions to create a new club using the club-creation user interface ("**the first web-based interface**"), which activates the given mobile information channel (*e.g.*, club message board, chat, photo sharing) by making it available for use by the founder and other club members through the newly-created club.

Petitioner notes that it is unclear if the requirement that the "**first web-based interface**" is configured to allow the first user to "**activate a given mobile information channel**," requires that the first user be able to use the first web-based interface to <u>selectively</u> choose a <u>particular</u> mobile information channel that be included with the club. In the case of Neibauer, the claimed activation occurs when the club founder chooses to take action to create the club using the first web-based interface, which causes the club and its mobile information channels to become available to the club founder and other club members.

But in the event it is determined by the Board or argued by Patent Owner that this limitation requires that the first user <u>selectively</u> activate <u>particular</u> mobile information channels, for example by selecting them on a channel-by-channel basis through a user interface, such feature would have been obvious in view of Miller.

Miller discloses a system similar to Neibauer for allowing users to create collaborative web-based environments. (Miller, Abstract, 0038:30-0039:12.) The process of creating a new environment is similar, in many ways, to the steps outlined in Neibauer. Miller discloses a number of web-based forms that allow the user to (among other things) specify a name and description for the environment (Fig. 13B) identify the members of the environment (Fig. 13C, 14A-C), and select the various communication features (*e.g.* bulletin board, etc.) that will be available for members (Fig. 16). (Miller, 0045:12-0046:27.) With respect to the selection of communications features, Miller discloses a user interface for allowing the user to select (from a list) the particular features that will be included in the collaborative environment. (Miller, Fig. 16, 0047:31-0048:9, 0042:29-32 ("The group creator selects from among these functions, preferably by way of an easy-to-use web browser interface, and these choices are stored in a database and associated with the group members.").) These selections are then used in creating the environment or group. (Miller, 0043:3-6 ("In step 1104, the environment is created… to permit the group members to activate the functions selected for the group."); EX1002, ¶104.)

Rationale and Motivation to Combine (Neibauer with Miller): It would have been obvious to combine Neibauer with Miller, predictably resulting in the system and method for creating a club described in Neibauer, but with the "**first web-based interface**" further allowing the club founder to select and activate the particular

communication features (including "**a given mobile information channel**") provided for the club. (EX1002, ¶105.) Neibauer and Miller are analogous references in the same field the same field as the '336 patent of network-based communication systems and information content management, and would have been reasonably pertinent to problems facing the inventors. (EX1002, ¶106.)

A skilled artisan would have been motivated to combine Neibauer with Miller to enhance the flexibility and customizability of clubs in Neibauer. For example, it would have been obvious that certain club features available in Neubauer may not have been particularly useful or desirable for some clubs. (EX1002, ¶107.) Allowing the club founder to select the particular features (*e.g.*, message board, chat, photo sharing, etc.) for inclusion in the club would have provided a clear advantage of allowing the club founder to customize and streamline the club to meet the needs of club members and further the purpose of the club. (*Id.*) As a further motivation to combine, Miller discloses many of the same features that Neibauer describes as being available for clubs, including message boards (0047:20-33 ("Bulletin boards")), chat (0052:23-24 ("Chat groups")), contact list (0049:19-26 ("White pages")), among others. (EX1002, ¶107.) A skilled artisan would also have had a reasonable expectation of success and could have implemented the proposed combination using conventional techniques, as the proposed combination involved nothing beyond standard Web programming technologies. (EX1002, ¶108.)

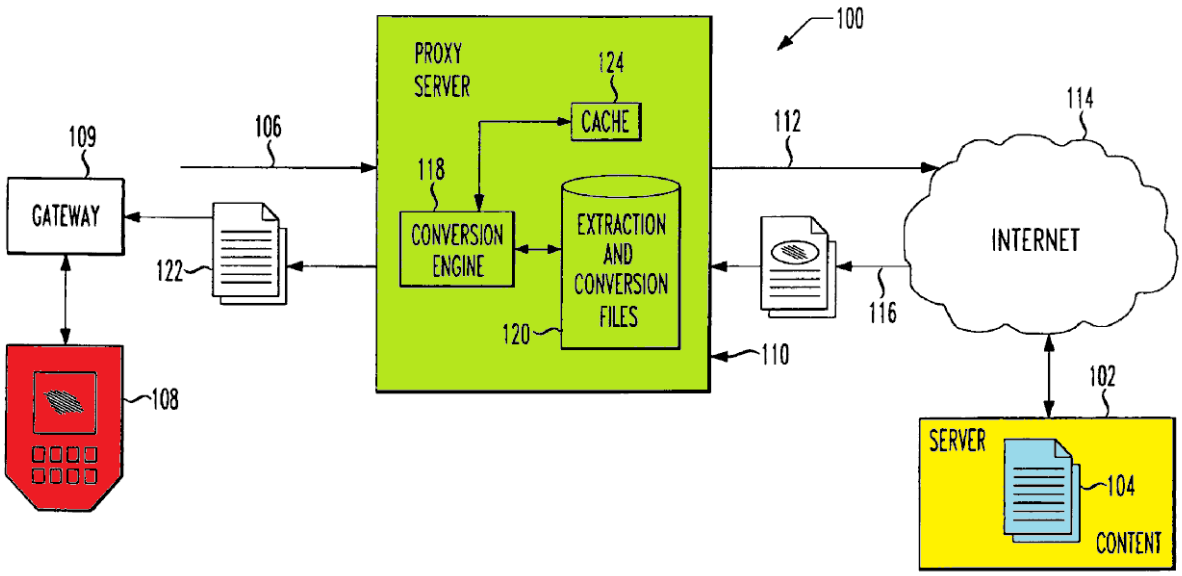
"Mobile" Information Channels: With respect to the word "**mobile**" in "**mobile information channel**," this adds nothing of significance because, as demonstrated below, it would have been obvious that each of the features of Neibauer relied upon above (*e.g.* club message board, chat, photo sharing) could have been adapted to allow for content sharing using a mobile device. The '336 patent itself expressly defines a "mobile device" as including, among other things, a laptop computer. ('336, 4:30-40.) It was well-known that conventional laptop computers provided the same functionality as desktop computers and were able to run web browser software and visit web pages on the Internet. (EX1002, ¶109.) It therefore would have been obvious that the Yahoo! website, including the clubs feature discussed above, would have been accessible to a user of a mobile device such as a laptop computer, thus making each of the "**information channels**" in Neibauer accessible via a mobile device.

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 accessible from their PDA. (Neibauer, pp.171-174.) Although Neibauer does not expressly disclose that the Yahoo! Clubs feature was one of the Yahoo! features that could be made accessible via mobile devices, it would have been obvious to extend the 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 of the existing mobile features described in Neibauer. (EX1002, ¶119.)

Information channels that are "**mobile**" would also have been obvious over Neibauer and in further view of Cheng. Cheng relies on an already-known technology known as "proxy servers," which were commonly used to provide security and/or interoperability between devices. (EX1002, ¶66.) 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, ¶111.)

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.) "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 ("Referring now to FIG. 1, it is envisioned that a proxy server **110** reformats/converts web content **104** on an origin web server **102** into a format **122** readable on any mobile device **108** (which can be any number of different mobile device types).").)

Rationale and Motivation to Combine (Neibauer and Miller with Cheng): It would have been obvious to combine Neibauer and Miller with Cheng, predictably resulting in the club creation functionality described above being delivered to mobile devices over the Internet. Under the proposed combination, therefore, the web pages in Neibauer relied upon for claim 1, including the web-based club creation page and form, the club home page, and additional pages that provide the claimed mobile information channels (*e.g.* club message board, chat, photo sharing, etc.) would all have been converted and delivered to mobile devices using the proxy server techniques in Cheng. (EX1002, ¶116.)

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, ¶¶117, 121-122; 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, <u>or for all web sites</u>.").) 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. (EX1002, ¶117.) 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, ¶¶117, 121-122.) Cheng is an analogous reference in the field of network-based communications systems and mobile devices, and would have been reasonably pertinent to problems facing the inventors, including how to implement a system for making information content available to mobile device users. (EX1002, ¶118.)

A skilled artisan would have been motivated to combine. As noted above, 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, ¶¶119-120.) 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 '336 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." ('336, 1:30-34.) Market forces would thus have motivated a skilled artisan to combine Neibauer with Cheng in order to provide the club functionalities described above to users of mobile devices. (EX1002, ¶120.)

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, ¶121.) As a further motivation to combine, the proxy server transcoding techniques in Cheng were already well-known and had already been deployed for the very purpose of converting web page content into formats suitable for mobile devices. (EX1002, ¶122.) A skilled artisan would also have had a reasonable expectation of success, as Cheng relies on well-known and industry-standard

Internet and wireless technologies. (EX1002, ¶123.)

Addressing Proposed Constructions in Pending Litigation: Petitioner notes that some of the terms in limitation 1**[a]** are subject to an ongoing dispute in the pending litigation, but as noted in **Part V** above, no construction is needed here as the prior art discloses and renders obvious any of the proposed constructions. In particular, with respect to the term "**mobile information channel**," Patent Owner contends that this term should be given its plain and ordinary meaning, and if necessary, construed as "*a medium for transferring information that allows mobile device users to author content*." (EX1025, at 1-2.)

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 "**mobile 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 language of the claim and the disclosures from the specification discussed above, as describing "M-channels" as providing categories of information content that can be

communicated with mobile device users. ('336, *e.g.*, 8:11-17, 8:27-38.)

This construction is satisfied by the proposed combination because, as discussed, the club message board, club chat and photo sharing information channels in Neibauer each provides an example of a medium for transferring information (such as textual messages, images, etc.) that allows club members to author content. (EX1002, ¶124.) These features would also have been made available to "*mobile device users*" based on the proposed combination as detailed above.

Petitioner has argued in the litigation that "**mobile information channel**" 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.) 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. It would have been obvious that the club-creation interface could have further allowed the club founder to add user-authored content to the club, such as messages for the club message board, photos for the club

photo album, and so forth. (Neibauer, pp.480-482 (describing how to create clubs and add content such as club name and photo); EX1002, ¶125.) This content would also have been made available on a "*mobile web site*, *or a portion thereof,*" *i.e.*, the club webpages delivered to mobile devices, under Neibauer alone or in view of Cheng. Petitioner has also provided separate Grounds 4-6 below, which adds the Harvey reference (**EX1010**), to address Petitioner's proposed construction of mobile 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) "generating a second web-based interface different than the first web-based interface, wherein the second web-based interface provides each of the one or more additional users access to at least a portion of the shared content via the given mobile information channel to thereby facilitate interaction between the first user and the one or more additional users;" (1[b])

The "**second web-based interface**" in Neibauer corresponds to one or more web pages for the Yahoo! club created by the club founder. Figure 21-13 shows a home page for the exemplary unlisted Yahoo! club described earlier:

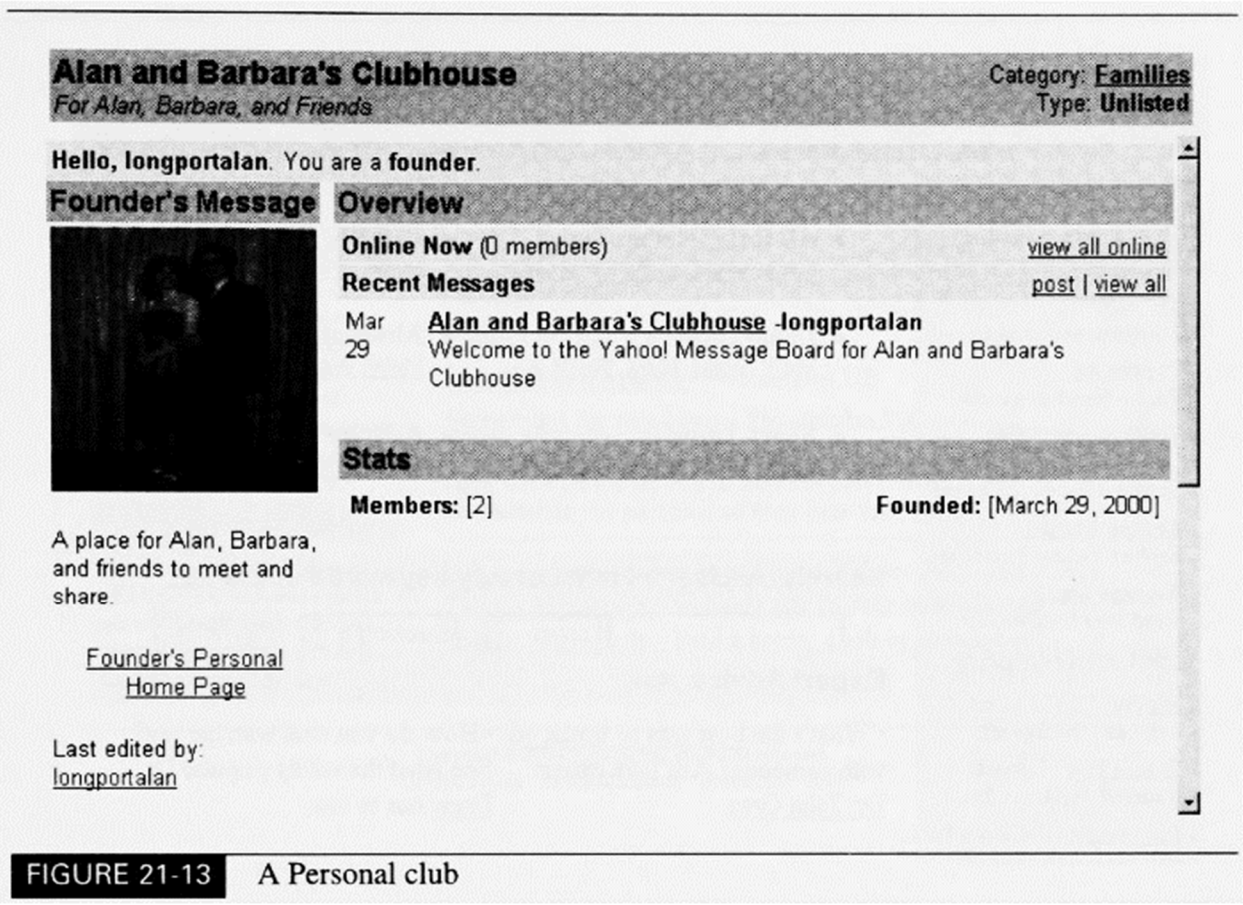


FIGURE 21-13 A Personal club

(Neibauer, p.483, Fig. 21-13.) "Figure 21-13 shows an example of a personal club page." (Neibauer, p.482.) Petitioner observes that the screen image in Figure 21-13 appears to have been inadvertently cut off as it does not show the "Our Pages" links on the left side, as shown in other exemplary club pages in Neibauer. (Neibauer, p.473 ("The Our Pages section of the page lists the pages and features that are available to members."), p.475, Fig. 21-8 ("The James Bond Movie Series" listed club showing "Our Pages" section).) Neibauer explains that the personal club page in Figure 21-13 "contains all of the elements found on other club pages." (Neibauer, p.482.) It thus would have been obvious to implement that the personal club page

as shown in Figure 21-13 to include the Our Pages features, which allow access to the message board, chat, photo, and other features. (EX1002, ¶126.)

The "**second web-based interface**" therefore includes the web pages that provide the functionality for the Yahoo! club created by the founder, including the club home page (as shown for example in Figure 21-13 above) and additional pages for the features available to club members. (Neibauer, p.477 ("Every club has its own message board."), p.479 ("The Chat option in the Our Pages section opens up a private chat area for club members."), p.477 ("The Photos option in the Our Pages section lets members share photographs and other graphics.").) This is consistent with the '336 patent which discloses that the second web-based interface is a mobile web site that can comprise a number of linked pages. ('336, 14:52-53, Figs. 18 & 24-25.) And for the same reasons as limitation 1**[a]** above, it would have been obvious that this interface qualifies as a "**web-based interface**." (EX1002, ¶¶127, 95.) And as explained above, the "**second-web-based interface**" would have been delivered to mobile devices using the techniques in Neibauer alone or in view of Cheng. (EX1002, ¶¶116-117, 119.)

The second web-based interface is also "**different**" from the "**first web-based interface**" described in the discussion of limitation 1**[a]**, because it provides different web pages that deliver different content. (EX1002, ¶128.) As explained for limitation 1**[a]**, in fact, the "**second web-based interface**" does not even exist

until the club itself is created, which occurs after the founder creates the club via the "**first web-based interface**," further confirming that the two web-based interfaces are different from each other. (Neibauer, p.481 ("Click Yes! I Accept.. You'll see a page that tells you the club has been created. The page shows the club name and its Web address.").) The Web address for the newly-created club, in fact, includes the name selected by the club founder via the "**first web-based interface**," further confirming that second web-based interface did not exist at the time the first web-based interface was used. (Neibauer, p.481 Fig. 21-12 ("**Step 1: Name Your Club** [] Keep the name short, as it will be in your Web address.") (bold in original).)

The second web-based interface in Neibauer also "**provides each of the one or more additional users access to at least a portion of the shared content via the given mobile information channel to thereby facilitate interaction between the first user and the one or more additional users**." Based on Neibauer and under the further combination with Cheng, as described for limitation 1**[a]**, if accessed by a mobile device, the "**second web-based interface**" would have been converted and delivered to mobile device in an appropriate format. (EX1002, ¶¶129, 116-117.) The "**second web-based interface**" also allows the club founder and other club members to access the club message board, chat and photo sharing features, which allow club members to access shared messages and photos as described above for limitation 1**[a]** ("**access to at least a portion of the shared**

content via the given mobile information channel"). The second web-based interface also "**facilitate**[s] **interaction between the first user and the one or more additional users**," because it allows for exchanging of information between the founder and the other club members using the mobile information channels, as discussed extensively above for limitation 1**[a]**. (EX1002, ¶¶97-100, 129.)

(c) "wherein the given mobile information channel supports messaging between the first user and the one or more additional users over a wireless network; and" (1[c])

As explained for limitation 1**[b]**, each of the club message board, chat and photo sharing features described in Neibauer ("**the given mobile information channel**") supports messaging between the founder ("**the first user**") and the other club members ("**the one or more additional users**"). The "**messaging**" in Neibauer thus corresponds to sending textual messages (with respect to the club message board and club chat mobile information channels), and sending photographs with accompanying titles and descriptions (with respect to the photo sharing mobile information channel), from or to at least the club founder. (EX1002, ¶130; *see also* Neibauer, p.477 ("Every club has its own private message board. Recent messages posted to the board are shown on the club's home page. Click Post in the Recent Messages banner to add your own comment to the board, or click View All or Messages in the Our Pages section to access the entire board."), p.479 ("The Chat option in the Our Pagers section opens up a private chat area for club members."),

p.477 ("The Photos option in the Our Pages section lets members share photographs and other graphics… Click Photo to see a list of the albums that the club maintains… Click an album name to see a list of the photographs stored there. For each photo, you will see the title, the contributor's name, the photo's size, and the date it was posted. Click a photo to see the photo on your screen.").)

It would also have been obvious based on Neibauer and Miller, in further view of Cheng, that the given mobile information channel supports messaging communication "**over a wireless network**," because mobile device accessing the mobile information channel would have been connected via a wireless network to the Internet. 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, ¶131.) Cheng similarly discloses wireless network device connectivity. (Cheng, *e.g.*, 2:4-7, 5:33 (mobile device **108** can include "a cellular telephone"), 23:44-51 (describing use of transport media such as "wireless communication (e.g., radio frequency (RF), and the like)").) It would have been obvious that the messaging communication under the proposed combination would have been provided "**over a wireless network**," such as a known cellular communications network such as GSM commonly used to communicate information

to and from wireless mobile devices. A skilled artisan would have been motivated to allow messaging over a wireless network to take advantage of the growing popularity of mobile and portable computing. (EX1002, ¶¶131, 120.)

(d) "wherein the mobile information channel is configured to permit the first user to send messaging content to the one or more additional users and to receive messaging content from the one or more additional users." (1[d])

For our purposes here, limitation 1**[d]** is largely redundant of 1**[c]**. As explained, each of club message board, club chat and photo sharing features permit the club founder ("**the first user**") to send messaging content to other club members ("**one or more additional users**"), or receive messaging content from those other club members. The "**messaging content**," for purposes of the club message board and club chat mobile information channels, corresponds to textual messages and, as noted, to photograph or image data (with accompanying textual descriptions) for the photo sharing mobile information channel. (EX1002, ¶¶130, 132.)

2. Claim 6: "The method of claim 1 wherein the first web-based interface is identified by a first uniform resource locator and the second web-based interface is identified by a second uniform resource locator different than the first uniform resource locator."

As fully explained for limitation 1**[b]**, the two claimed web-based interfaces would have been different from one another. It would also have been obvious that the two web-based interfaces would have been identified by two different uniform resource locators (URLs). (EX1002, ¶¶133-135.) It was basic knowledge that every

web page on the Internet was identified by a unique URL, the standard technique for identifying resources on the Internet such as web pages. (EX1002, ¶134; Cheng, 3:56-57 ("It is envisioned that each instance of web content **104** each have associated therewith a URL."); *see also* David Fox et al., *HTML Web Publisher's Construction Kit* (1995) (**EX1013**), p.13 ("A *URL* (or *Universal Resource Locator*) is the address of a document, file or other Internet resources… The World Wide Web gives every article, newsgroup, database, computer file, or other Internet fragment its very own URL.") (italics in original).) It therefore would also have been obvious that the URLs for the "**first web-based interface**" (for creating the club) and the "**second web-based interface**" (the club web pages providing access to the given mobile information channel) would have been "**different**." (EX1002, ¶134.)

This is further confirmed by Figure 21-12 of Neibauer below, which confirms that the Web address (*i.e.* URL) for a new club will include the user-selected name:

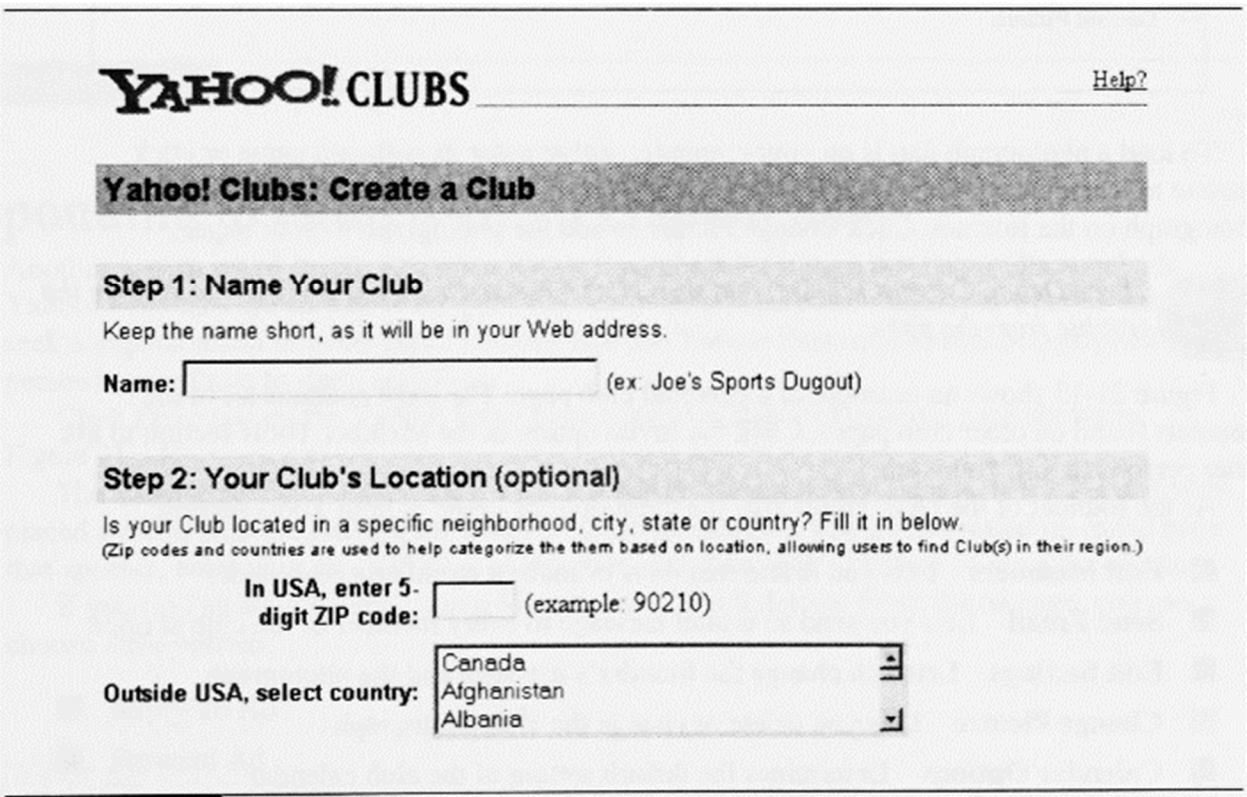


FIGURE 21-12 Creating a club

(Neibauer, p.481, Fig. 21-12.)

As shown under **Step 1**, the user is instructed to "[k]eep the name short, as it will be in your Web address." (*Id.*) As explained for limitation 1**[b]**, because the Web address (URL) for the club home page (the "**second web-based interface**") is only known <u>after</u> the club is named and the created (using the "**first web-based interface**"), as it specifically incorporates the name provided by the founder through the web creation form, it would have been obvious that the two claimed web-based interfaces would have been identified by different URLs. (EX1002, ¶135.)

3. Claim 7: "The method of claim 1 wherein the shared content is obtained from a device-captured data source of the first user, said device-captured data source comprising a source of at least one of device-captured video data, device-captured image data, device-captured audio data and device-captured location coordinates."

It would have been obvious that the shared content would have been obtained from a "**device-captured data source of the first user**" that includes at least a source of "**device-captured image data**." (EX1002, ¶¶136-137.) As noted for claim 1, Neibauer discloses a club photo sharing feature in which the club founder and other club members can upload and share photos. (Neibauer, pp.477-479.) It would have been obvious for the shared content to have included "**device-captured image data**," such as digital photographs captured using a digital camera of the first user. (Neibauer, p.478, Fig. 21-10 (showing exemplary club photo album having photos of Denise Richards and Famke Janssen).) It was also known, as of June 2002, that portable communications devices included digital cameras for capturing and storing images. (EX1002, ¶137.) Petitioner has also provided a separate Ground 2 in the event it is determined that a further prior art reference is required to explicitly show a portable device capable of capturing image data.

4. Claim 8: "The method of claim 1 wherein the first web-based interface permits the first user to upload at least one information item, and wherein the second web-based interface provides said one or more additional users with access to said at least one uploaded information item in accordance with accessibility rules established by the first user via the first web-based interface."

One of the features disclosed in Neibauer allows the club founder to specify a club picture ("**an information item**") that will appear on the club page ("**the second web-based interface**"). (Neibauer, p.482.) For example, Neibauer explains that "[t]o load a photograph that is on your computer, either select its path and name or click Browse to locate the photograph." (Neibauer, p.482.)

Neibauer does not expressly state that this process results in the selected club picture being "**upload**[ed]," but this would have been apparent and obvious. (EX1002, ¶138.) Neibauer discloses the very same user interface technique for sharing a photo using the club photo sharing feature, in which the user can specify the location of a photo on their disk of their local computer. (Neibauer, pp.478-479, ¶¶1-2.) Neibauer explains that, when the user has completed their selections, it can "click Upload to move a copy of the photo into the club's Web space." (Neibauer, p.478, ¶5.) It would have been obvious to apply the club photo sharing technique to the club picture feature, predictably resulting in uploading of the selected club picture ("**an information item**") from the user's computer. (EX1002, ¶138.) *See 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.").

It would also have been obvious that the club picture upload feature would have been available via "**the first web-based interface**," such as on the club creation user interface. Neibauer indicates, in fact, that the feature for adding a picture to the club's home page is not on the club home page. For example, after pressing "**Yes! I Accept**" on the club creation form, Neibauer explains:

> You'll see a page that tells you the club has been created. The page shows the club name and its Web address. You also get these options:
>
> ■ **Invite Friend** Lets you invite others to join the club.
>
> ■ **Fix It Up** Lets you add text and a photo to the club's home page.
>
> ■ **Let Me See It** Opens the club's home page.

(Neibauer, p.481 (boldface in original).) Neibauer therefore discloses an interface that allows the founder to add a club picture (available under "**Fix It Up**"), which is separate and distinct from the club home page (available under "**Let Me See It**") to which Petitioner has mapped the "**second web-based interface**." In any case, it would have been obvious to include, as part of "**the first web-based interface**," the functionality described above for allowing the club founder to upload a club photo. A skilled artisan would have been motivated to implement Neibauer in this way because, as explained, the club creation web form allows the founder to enter the name for the club (Neibauer, p.481, ¶4), and it would have been obvious to allow

the founder to select and upload the club photo as part of the club creation process. (EX1002, ¶139.) Alternatively, for purposes of claim 8, the claimed "**first web-based interface**" includes not just the club-creation form in Neibauer but also the "page that tells you the club has been created" (Neibauer, p.481), and the club picture upload functionality discussed above.

Neibauer also discloses that "**the second web-based interface provides said one or more additional users with access to said at least one uploaded information**," because the uploaded club picture is shown to other club members when they view the club page ("**the second web-based interface**"). (Neibauer, p.481 ("**Fix it Up** […] Lets you add text and a photo <u>to the club's home page</u>.") (bold in original; underlining added)), p.483, Fig. 21-13 (showing exemplary club home page with club picture provided by club founder).)

Neibauer further discloses that the other club members are provided "**access to said at least one uploaded information item in accordance with accessibility rules established by the first user via the first web-based interface**," because the founder can select through the club-creation web pages ("**the first web-based interface**") the new club will be either "listed" or "unlisted." (Neibauer, p.482, ¶6.) "A listed club is one that is open to all Yahoo! members. To join the club, you simply fill our on online form. Don't worry, you cannot be rejected from a listed club." (Neibauer, p.473.) An unlisted club, on the other hand, "is private. Only

Yahoo! members who were invited to join may join the club and be able to access it." (Neibauer, p.473; *see also id.*, p.475.) When a club founder ("**the first user**") selects an "unlisted" club, therefore, the club founder is specifying "**accessibility rules**" for the club page, which include the club being private and not open to the public (unlike a "listed" club), and can only be accessed by other users upon receipt of an invitation to join the club. The invitation, in turn, provides instructions on how to join a club. (Neibauer, pp.475-476.) Figure 21-9 below shows another rule that, in order to join a club in response to an invitation, the invited user may enter an optional comment but must click "Yes! I Accept" to join the club:

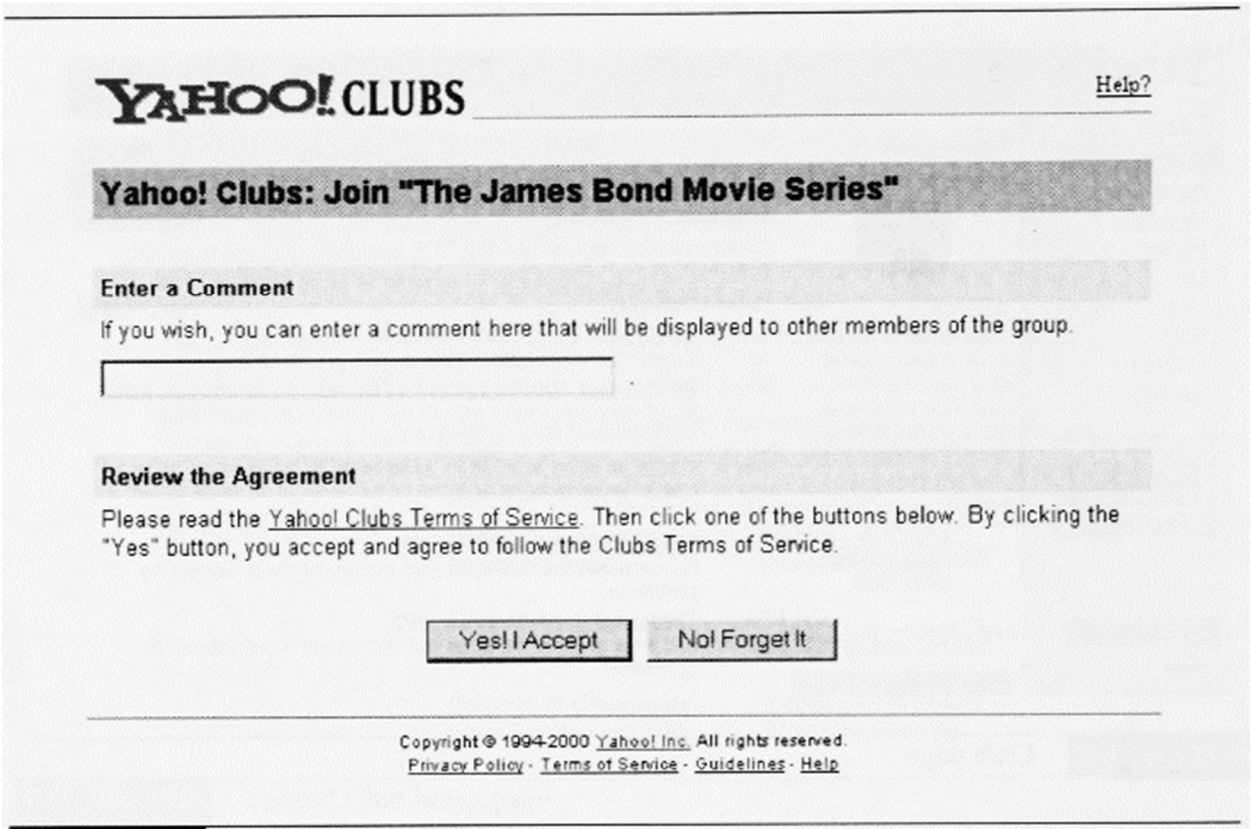


FIGURE 21-9 Joining a club

(Neibauer, p.476, Fig. 21-9.) Because these accessibility rules govern access to the club page, which in turn includes the club picture, the accessibility rules govern "**access to said at least one uploaded information item**."

5. Claim 9: "The method of claim 1 wherein the one or more additional users comprise individuals that with the first user and by mutual consent collectively comprise a group of members that have access to at least a portion of said shared content via the second web-based interface."

As just explained for claim 8, when a club founder invites other additional users to join an unlisted club – and those members agree to join – the one or more additional users comprise "**individuals that with the first user**," *i.e.*, with the club founder, "**by mutual consent**," *i.e.*, by the club founder inviting the additional members to join, <u>and</u> those invited members agreeing to join, "**collectively comprise a group of members that have access to at least a portion of said shared content via the second web-based interface**," *i.e.*, collectively comprise a group of club members that can access content shared via one or more of the mobile information channels as described in limitation 1**[a]** ("**said shared content**") via the club pages ("**via the second web-based interface**"). (EX1002, ¶¶142, 96-100.)

6. Claim 10: "A non-transitory computer-readable storage medium having embodied therein executable code of one or more software programs for use in managing information content in a network-based communication system, wherein said executable program code when executed by a processing element of the communication system implements the steps of the method of claim 1."

Claim 10 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, ¶143; Cheng, *e.g.*, 23:16-20.) It would have been obvious that the software used to carry out the functions of Neibauer, Miller, and Cheng as described for claim 1 would have been stored on at least one non-transitory computer-readable storage medium, such as a hard disk 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 further combination with Cheng, the "**processing element**" would have included origin web server **102** in Cheng (which would have performed the functions in Neibauer), and proxy server **110** (which would have made the features of Neibauer available to mobile devices).

Petitioner notes that mapping the claimed "**processing element**" to origin web server **102** <u>and</u> proxy server **110** in Cheng is consistent with the '336 patent, which makes clear that a processing element or server can itself comprise multiple servers.

('336, 9:2-4 ("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, ¶144.) This implementation is disclosed by Cheng itself, which explains that the computer system implementing the proxy server can "be replaced by, <u>or combined with</u>, 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 skilled artisans would have been familiar with well-known techniques for consolidating tasks within a single server when needed. (EX1002, ¶144.) For example, a skilled artisan would have been motivated to combine origin web server **102** with proxy server **110** to improve the performance of Cheng's proxy server techniques, as this would have eliminated the step (and network overhead associated with) origin server **102** having to send the original web page to the proxy server over the Internet. (*Id.*)

7. Independent Claim 11

Claim 11 is little more than an apparatus counterpart to method claim 1. The claimed "**apparatus**" for claim 11 includes the web server that provides the functionality of Neibauer and Miller (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.

(a) "a processing element comprising a processor coupled to a memory;" (11[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, ¶147; Cheng, 23:16-20; Miller, 0043:32-0044:2.) Dependent claim 13, which depends from claim 11 and is addressed below, 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, under the further combination with Cheng, origin web server **102** (which would have provided the features deceived in Neibauer and Miller), and proxy server **110**, would have comprised "**a processing element comprising a processor coupled to a memory**." (EX1002, ¶148.) Petitioner notes that mapping the claimed "**processing element**" as including a web server <u>and</u> proxy server **110** is consistent with claim 11, which merely requires "**at least one**" processing element and thus does not preclude multiple processing elements. And as fully explained for claim 10 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, ¶¶148, 144.)

(b) "the processing element providing at least a portion of a first web-based interface…;" (11[b])

(c) "the processing element generating a second web-based interface…;" (11[c])

The functions in limitations 11**[b]-[c]** are substantially similar to the steps in 1**[a]-[b]**, respectively, and obvious for the same reasons. (EX1002, ¶¶149-150.) These steps would also have been performed by the claimed processing element as described for limitation 11**[a]**. Under the proposed combination with Cheng, origin web server **102** and proxy server **110** (the "**at least one processing element**") would have worked together to provide the claimed web-based interfaces.

(d) "wherein the given mobile information channel supports messaging…; and" (11[d])

(e) "wherein the mobile information channel is configured to permit…." (11[e])

These limitations are identical to limitations 1**[c]-[d]**, respectively, above, and are obvious for the reasons provided.

8. Claim 13: "The apparatus of claim 11 wherein the processing element comprises at least one server."

As explained for limitation 11**[a]**, the processing element comprises at least origin web server **102** (corresponding to a web server that provides the functions of Neibauer) and proxy server **110** ("**at least one server**").

9. Claim 14: "The apparatus of claim 13 wherein the server is accessible over the Internet via a network interface."

The servers of claim 13 are both 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, ¶153; 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).)

10. Independent Claim 15

Claim 15 is little more than a system counterpart to method claim 1. The preamble of claim 15 recites "[**a**] **network-based communication system**," which is disclosed by the proposed combination as described below.

(a) "a plurality of servers configured to communicate over a network;" (15[a])

As explained for claim 1 and limitation 11**[a]**, the proposed combination of Neibauer and Cheng discloses a network-based communication system that includes at least two servers that communicate over the Internet. First, the system comprises the web server providing the functionality of Neibauer and Miller, which also

corresponds to origin web server **102** in Cheng. (Cheng, 3:36-37 ("In this context, an origin web server **102** is a web server that contains the original web page **104**.").) The network-based system under the proposed combination also includes proxy server **110** in Cheng that, as explained for claim 1, reformats and translates the web pages from Neibauer for delivery to a mobile device. (Cheng, 3:31-33.) Both of these servers are also "**configured to communicate over a network**," *i.e.*, the Internet. (Cheng, *e.g.*, 3:67-4:2; EX1002, ¶156.)

(b) "at least one of the servers providing at least a portion of a first web-based interface…;" (15[b])

(c) "wherein said at least one server generates a second web-based interface…;" (15[c])

The functions here are substantially similar to the steps of 1**[a]-[b]**, and 11**[b]-[c]**, respectively. Under the proposed combination as described, at least one of the servers in the network-based system would have performed these functions. For example, the web server that corresponds to origin web server **102** in Cheng would have provided the web-based interface for creating or accessing the club. If accessed using a mobile device, that web-based interface would also have been reformatted and converted by proxy server **110** in Cheng into a form suitable for the founder's mobile device, which proxy server **110** would have provided to the mobile device. In either case, the claimed web-based interfaces would have been provided by at least one of the servers, as claimed. (EX1002, ¶157.)

(d) "wherein the given mobile information channel supports messaging…" (15[d])

(e) "wherein the mobile information channel is configured to permit…." (15[e])

These limitations are identical to limitations 1**[c]-[d]**, respectively, above, and are obvious for the reasons provided.

11. Claim 16: "The method of claim 1 further comprising maintaining a contact list for the given mobile information channel, the contact list comprising the one or more additional users."

Neibauer discloses multiple examples of the claimed contact list. First, as explained for claim 1, one example of a mobile information channel is the club chat. (Neibauer, p.479.) As Neibauer explains, the Chat section on the club page "lists the members who are currently chatting." (Neibauer, p.479.) Accordingly, when the given mobile information channel corresponds to a club chat, the "**contact list**" thus corresponds to the list of members currently chatting.

Second, Neibauer discloses a contacts feature that lists the IDs of the club founder and other club members as shown in Figure 21-11:

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

Category: James Bond Serie
Club Type: Liste

Contacts

Showing 1 - 20 of 115 members | next 20

Edit My Comments

Online Founders - Yahoo! ID	Age	Gender	Location	Comment
shaner303 ☆	12	male	Illinois	no comment..

Online Members - Yahoo! ID	Age	Gender	Location	Comment
Lawrence_3		neuter		no comment..
ace_jammer	15	male	Florida	no comment..
agarber_28		male		Can't wait for The World is not enough
akaxlee		male		no comment..
alain_desmier	16	male	London, England	Hey there, iam Alain
aneibauer		male		Love the books -- even the new ones!
anjuliz2000	41	female	New York	no comment..
asevilla_90023	35	male	Los Angeles Ca.	bring him on
assassin_m9		male		no comment..
BabyBlue_285	18	female	Wisconsin	no comment..

FIGURE 21-11 Contacts page

(Neibauer, p.480, Fig. 21-11.) The contact list in Neibauer provides "**a contact list for the given mobile information channel**," because it lists all of the members who are members of (and thus can access) the club. These members, in turn, are allowed to access the given mobile information channel, *e.g.*, private message board, chat, photo sharing, etc., as described for claim 1, because they are members of the club that includes that channel. (EX1002, ¶¶160-161.)

12. Claim 17: "The method of claim 1 further comprising distributing advertising content to the one or more additional users via the given mobile information channel."

Neibauer discloses that a club can also be used to distribute advertising content to other club members:

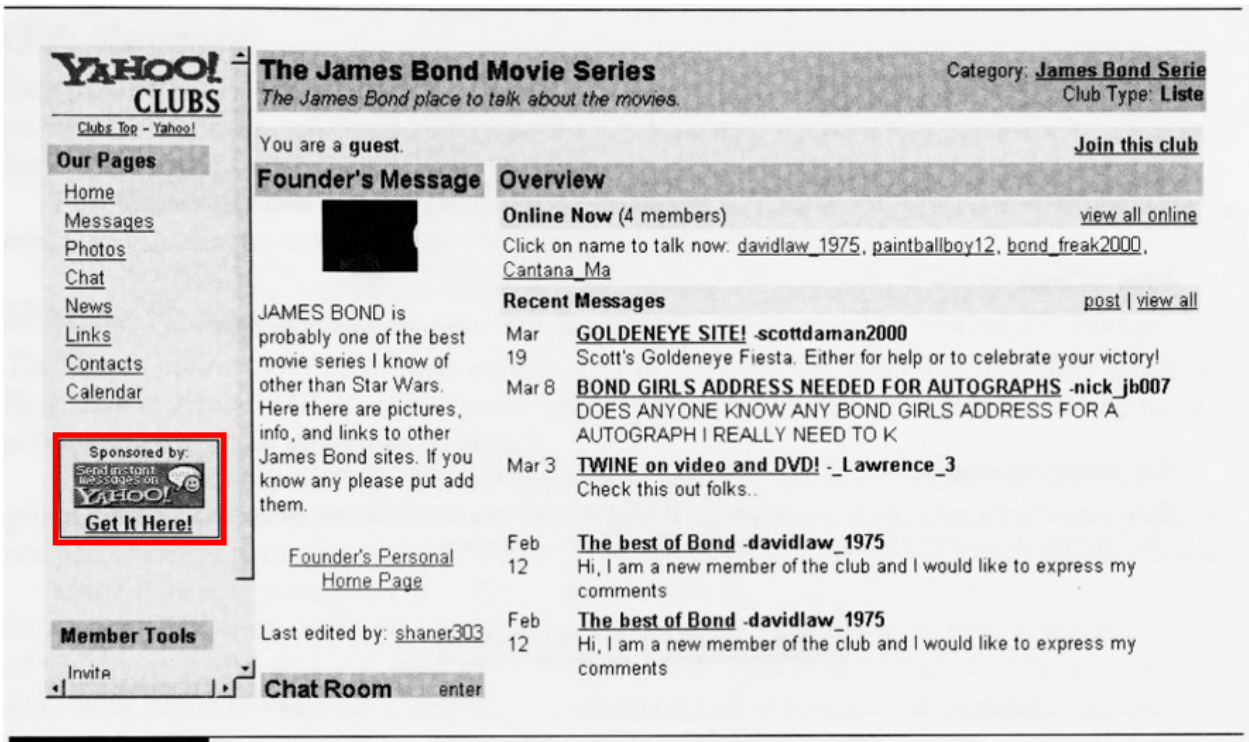


FIGURE 21-8 Club page

(Neibauer, p.475, Fig. 21-8 (red box added).) As shown in the red box, the exemplary club in Figure 21-8 includes an advertisement. The advertising content here is also shown accompanying a club message board (an example of a "**mobile information channel**" as explained for limitation 1**[a]**), this disclosing "**distributing advertising content to the one or more additional users via the given mobile information channel**." (EX1002, ¶162.) The claimed ability to distribute advertising content via a web page and also adds nothing of patentable significance as this was a well-known and widespread practice with webpages long before June 2002. (EX1002, ¶163.)

Claim 17 is also obvious in view of the bulletin board feature of Miller, which provides substantially similar functionality to the message board feature in Neibauer, but further discloses that a bulletin board may include "offers to buy and or sell" items. (Miller, 0048:20-33, Fig. 2.) It therefore would have been obvious that one or more messages posted in the club message board of Neibauer ("**a given mobile information channel**") would have included advertising content posted by the founder or other club members (such as offers to buy or sell), which would have been distributed to other club members when viewed. (EX1002, ¶164.)

13. Claim 18: "The method of claim 17 wherein distributing advertising content comprises inserting advertising content along with messaging content in the given mobile information channel."

In the first example in claim 17 referring to Figure 21-8 of Neibauer, the sponsorship advertisement appearing on the club page ("**advertising content**") was inserted on the page alongside messaging content in the club message board ("**the given mobile information channel**"). In the second example referencing Miller, the advertising content takes the form of actual advertising messages appearing alongside other types of messages in the club message board. Each example thus discloses advertising content being inserted "**along with messaging content in the given mobile information channel**," *i.e.*, along with other messages in the mobile information channel.

14. Claim 20: "The method of claim 1 wherein the given mobile information channel comprises a chat channel."

As fully explained for claim 1, Neibauer discloses a mobile information channel in the form of a chat channel. (Neibauer, p.479.)

15. Claim 21: "The method of claim 1 wherein the messaging content comprises personalized messaging content for the first user."

As explained for claim 1, Neibauer discloses multiple examples of "**personalized messaging content**" for the first user, *i.e.*, the club founder. For example, a club founder can post its own personalized messages using the private message board. (Neibauer, p.483, Fig. 21-13 (showing personalized "Welcome" message posted by club founder).) The founder can also engage in online chat with other members. (Neibauer, p.479.) The founder can also add its own personalized photos or create its own personalized photo albums. (Neibauer, pp.477-479.) Each example provides "**messaging content**," *i.e.*, the messages exchanged between the club founder and the one or more additional users, "**personalized**" for the first user because the messages would have either been written by the club founder or intended for or directed to the club founder. (EX1002, ¶167.)

16. Claim 23: "The method of claim 1 wherein the messaging content comprises at least one of an image…"

As explained for claim 1, the messaging content for the club photo sharing feature can comprise at least an image. (Neibauer, p.477.)

17. Claim 24: "The method of claim 1 wherein the messaging content comprises at least one of announcements, notes, surveys, promotions and contests."

It would have been obvious that the messaging content would have comprised any one of the examples recited in claim 24. (EX1002, ¶169.) For example, Neibauer discloses examples of messages disclosing at least "**announcements**" and "**notes**." (Neibauer, p.475, Fig. 21-8 (exemplary club page showing message: "Hi, I am a new member of the club and I would like to express my comments"), p.483, Fig. 21-13 (exemplary club page showing message: "Welcome to the Yahoo! Message Board for Alan and Barbara's Clubhouse").)

18. Claim 25: "The method of claim 1 wherein at least a portion of the shared content is authored by the first user."

As explained for claim 1, Neibauer discloses multiple examples in which "**at least a portion of the shared content is authored by the first user**." For example, messages posted by the club founder, chat messages from the club founder, and photos shared by the club founder (with accompanying textual descriptions) all comprise shared content "**authored by the first user**." (Neibauer, p.483, Fig. 21-13 (exemplary club page posted by club founder longportalan: "Welcome to the Yahoo! Message Board for Alan and Barbara's Clubhouse").)

19. Claim 26: "The method of claim 1 wherein the first web-based interface is configured to allow the first user to title the given mobile information channel."

As fully explained for claim 1, one of the steps for creating a club using the

"**first web-based interface**" involves the club founder ("**the first user**") providing a title or name for the club. (Neibauer, *e.g.*, p.481, ¶4 ("Enter a name for the club.").) This name is then used as the title for the club page containing the mobile information channels, as shown in Figure 21-13:

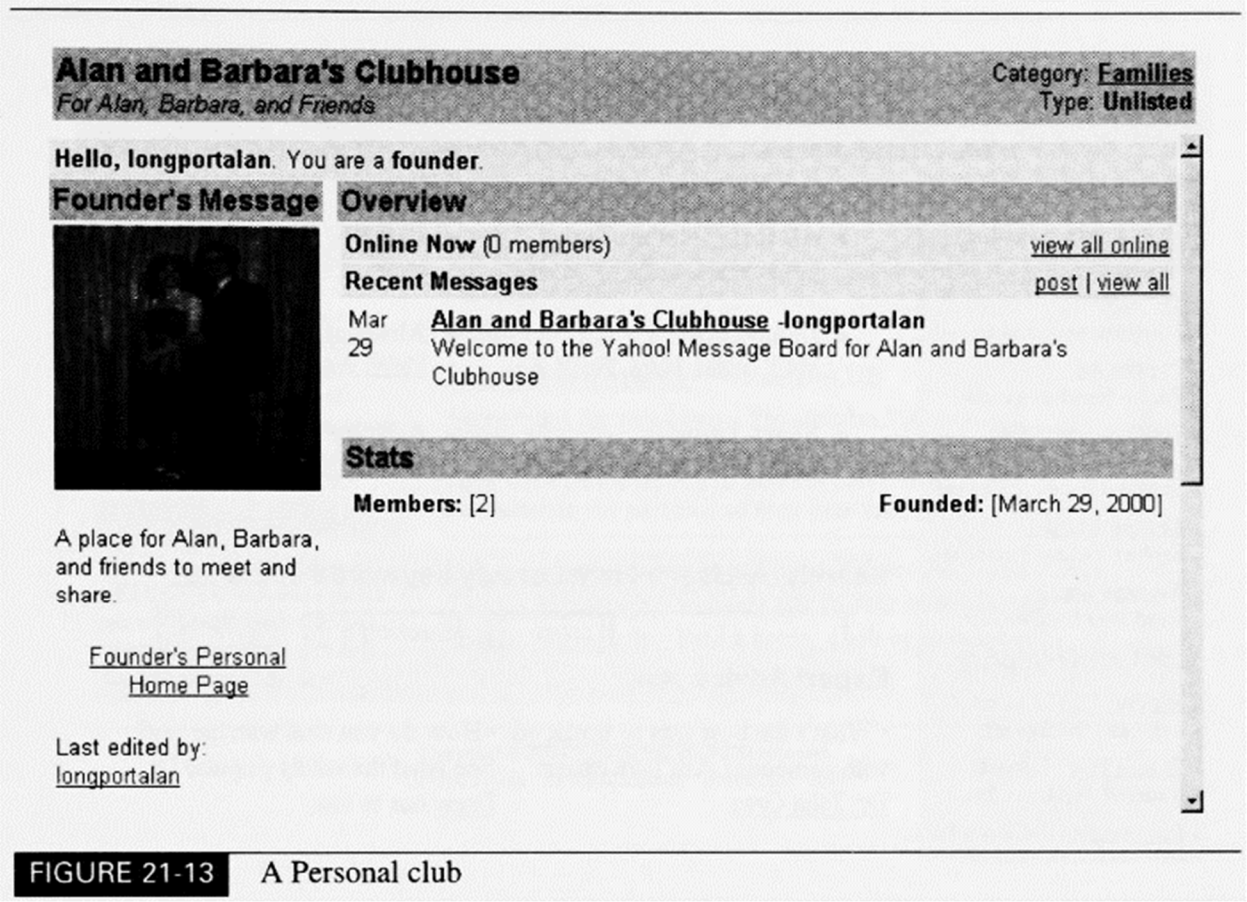


FIGURE 21-13 A Personal club

(Neibauer, p.483, Fig. 21-13.) "Figure 21-13 shows an example of a personal club page. The page contains all of the elements found on other club pages." (Neibauer, p.482.) As shown, the title of the club page in this example is "**Alan and Barbara's Clubhouse**," which serves as a title for the club and thus all of its mobile information

channels. As shown in Figure 21-13, this title also serves as the title for the club message board information channel itself, shown on the club home page.

Neibauer discloses other examples in which the first user can establish a title for a mobile information channel. With respect to the club photo sharing feature, the user can create a new photo album and "enter an album name." (Neibauer, p.479; *see also id.*, p.478, Fig. 21-10 (showing photo album titled "Blueraja's BOND GIRL Album" displayed using the club photo sharing feature).) Similarly for the club message board, a user can specify a new message topic (thread) and title it by giving it a heading. (Neibauer, p.471.) In each of these further examples, the first user establishes a title for the given mobile information channel.

20. Independent Claim 27

Method claim 27 is similar to claim 1, and as such, Petitioner will refer back to the claim 1 analysis where appropriate.

(a) "generating a given mobile information channel for sharing content authored by a first user with one or more additional users; and" (27[a])

Limitation 27**[a]** is substantially similar to 1**[a]-[b]**. As explained for 1**[b]**, the proposed combination discloses a given mobile information channel (*e.g.* club message board, club chat, photo sharing) for sharing content authored by a first user with one or more additional users. The claimed generating occurs when the mobile information channel is made available to club members via the club page. (EX1002,

¶¶173, 127, 129-130, 97-100.)

(b) "providing each of the one or more additional users access to at least a portion of the shared content via the given mobile information channel to facilitate interaction between the first and additional users;" (27[b])

Limitation 27**[b]** is substantially similar to 1**[b]**. As explained, the club created by the club founder would have provided the other club members access to at least a portion of the shared content. This access would have been provided, as explained, via the given mobile information channel and would have facilitated interaction and exchange of information between the club founder and the other club members. (EX1002, ¶¶97-100, 130.)

(c) "wherein the given mobile information channel supports messaging…; and" (27[c])

(d) "wherein the mobile information channel is configured to permit…." (27[d])

These limitations are identical to 1**[c]-[d]**, respectively, above, and are obvious for the reasons previously provided.

D. Ground 2: Claim 7 Is Obvious Over Ground 1 Prior Art In View Of Ausems.

Ausems discloses a portable mobile device that combines the functionality of a Personal Digital Assistant (PDA) with a wireless telephone. (Ausems, 3:5-8.) The PDA telephone **100** in Ausems can also run a conventional mobile operating system and may include a web browser. (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).").) Ausems thus discloses a "**device-captured data source**" that comprises a source of at least "**device-captured image data**," as recited in claim 7.

Rationale and Motivation to Combine (Ground 1 Prior Art with Ausems): It would have been obvious to combine the Ground 1 prior art with Ausems, predictably resulting the proposed combination being further adapted so content shared by the club founder ("**the first user**") would have been obtained from a "**device-captured data source**" that comprises a source of at least "**device-captured image data**," as recited in claim 7. (EX1002, ¶180.) For example, the club founder would have captured image data using a digital camera of the mobile device and uploaded it to the club for sharing with other club members. (Neibauer, pp.477-478.) Ausems is an analogous reference in the field of wireless and mobile communications and would have been reasonably pertinent to problems facing the inventor. (EX1002, ¶181.) A skilled artisan would have been amply motivated to combine in order to expand the universe of image data that the founder could share with other members of the club. (EX1002, ¶182.) A skilled artisan would have had a reasonable expectation of success, and could have implemented the proposed

combination using conventional techniques. (EX1002, ¶183.)

E. Ground 3: Claims 21-22 Are Obvious Over Ground 1 Prior Art In View Of Fransioli.

1. Claim 21: "The method of claim 1 wherein the messaging content comprises personalized messaging content for the first user."

As explained for Ground 1 and dependent claim 17, both Neibauer and Miller disclose and render obvious that the messaging content can comprise advertising content. For purposes of Ground 3 and claims 21-22, the "**personalized messaging content**" corresponds to content personalized for the first user based on the further combination with Fransioli.

Miller discloses several examples of providing advertising to users of a collaborative environment or group. (Miller, 0049:1-5.) As explained for claim 17, Miller also discloses using its bulletin board feature to post offers to buy or sell items. (Miller, Fig. 2, 0048:20-33.) It therefore would have been obvious for "**the messaging content**" in claim 1 to have comprised advertising content.

With respect to the requirement of "**personalized**" messaging content, this would have been obvious in further view of Fransioli, which discloses a method and system for providing a message to a user that is based on the location and direction of the user's portable device. (Fransioli, ¶0006.) The portable device can be a wireless or cellular handset. (Fransioli, ¶¶0029, 0030; *see also id.*, ¶0018, Fig. 1 (portable device **26**).) In one embodiment, a server determines the location of the

portable device, the direction of travel of the mobile device, and then establishes a message that includes content based on the mobile device's location and direction of travel. (Fransioli, ¶¶0007, 0015, 0023.) The location of the device can be determined using well-known GPS techniques or using various transmitters in the wireless access network. (Fransioli, ¶¶0027, 0030.)

The location-based information sent to the portable device can include, among other things, personalized advertising information. (Fransioli, ¶0018 ("For example, advertising may be delivered to the portable device based on location and direction of travel."), 0029.) But location-based information is not limited to advertisements. "For example, the message content may include a public service announcement, a local event schedule, a traffic report possibly including alternative route information, and/or a weather report," among others. (Fransioli, ¶0011.)

Fransioli further explains that its method "can apply to data with the newer wireless handsets or an interactive wireless data device integrated into a vehicle." (Fransioli, ¶0030.) "In this variant, a user can invoke the data service and connect to multimedia content or a web portal. Based on the location and travel direction information retrieved, the user can view the same type of information, except instead of being audio, it will be interactive multimedia or Internet media." (Fransioli, ¶0030.) Fransioli therefore discloses "**personalized**" messaging content, *i.e.*, messages personalized for the user (such as advertisements) based on the location

and/or direction of travel of their mobile device. (Fransioli, ¶0005.)

Rationale and Motivation to Combine (Ground 1 Prior Art with Fransioli): It would have been obvious to combine the Ground 1 prior art with Fransioli, predictably resulting in the combined system providing "**personalized messaging content for the first user**," *i.e.*, messaging content that would have been selected for the first user based on at least the location of their mobile device. (EX1002, ¶190.) For example, in one exemplary implementation, the messaging content could have comprised an advertisement or information about a particular event from a club message board, selected for delivery to the club founder based on at least the location of its wireless mobile device. (*Id.*) Fransioli is an analogous reference in the same field of wireless and mobile devices and would have been reasonably pertinent to problems facing the inventors. (EX1002, ¶191.)

A skilled artisan would have been motivated to combine to enhance user experience by providing for personalized (location-based) content. Fransioli provides an express motivation to combine by explaining that his system "provides localized and personalized information content in ways that improve over existing systems." (Fransioli, ¶0005.) It would have been obvious that personalized content based on the user's current location would have been more likely to be relevant to the user as compared to messaging content provided without regard to location. (EX1002, ¶192; Fransioli.) Fransioli provides a further express motivation to

combine with Neibauer by explaining that a user can invoke the data service by connecting to a "web portal." (Fransioli, ¶0030.) The term "web portal" was used to refer to websites that served as jumping-off or starting points for Internet users, and Yahoo! was widely known and recognized in Neibauer itself as a well-known web portal. (EX1002, ¶193.) A skilled artisan would also have had a reasonable expectation of success and could have implemented the proposed combination using conventional techniques. (EX1002, ¶194.)

2. Claim 22: "The method of claim 21 wherein the given mobile information channel integrates location-based service information of the wireless network with the personalized messaging content."

As just explained, the proposed combination would have provided "**location-based service information of the wireless network**," *i.e.*, the location of the first user's mobile device. Fransioli further explains that the mobile device location can be determined by the device itself using well-known global position system (GPS) techniques, or using the wireless network itself through signal strengths between the device and various transmitters in the wireless network. (Fransioli, ¶¶0027, 0030.) In either case, the proposed combination would have provided "**location-based service information of the wireless network**," as claimed, which the given mobile information channel would have "**integrat**[ed]" with the personalized messaging content. This is because, under the proposed combination, the current location information would have been used to personalize the message content for the first

user. (Fransioli, ¶0011 ("For example, a driver in a vehicle may desire information about products and services in the locality.").) The given mobile information channel thus "**integrates**" location-based service information with the personalized messaging content by using the current location to establish the message delivered to the user. (Fransioli, ¶0031 ("At block **76** [of Figure 2] a message is established that includes content based on location and direction of travel.").)

F. Grounds 4-6: Obviousness in Further View of Harvey.

Grounds 4-6 are substantially the same as Grounds 1-3, respectively, except that they add Harvey (**EX1010**) to account for a construction of "**mobile information channel**" proposed by Petitioner in the litigation. In the event the Board finds it unnecessary to construe this term for this IPR, these grounds need not be further considered.

As explained for Ground 1, limitation 1**[a]**, Petitioner has argued in the pending litigation that "**mobile information channel**" should be construed as "*a virtual location at the content management site at which user-authored content may be added for transmission to the mobile web site*." (EX1025, at 1-2.) The key feature of this construction, for purposes of Grounds 4-6, 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. With respect to the requirement that the "*content management site*" permit the user to add "*user-authored content*," to the extent not already disclosed by 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 Grounds 1-3 also 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 and the collaborative environments described in Miller. (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 Grounds 1-3 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 "**mobile 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, 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, on the club page itself as described for limitation 1**[b]** in Ground 1. (EX1002, ¶¶199-200.) Harvey is an analogous reference and would have been reasonably pertinent to problems facing the inventors. (EX1002, ¶201.)

A skilled artisan would have been motivated to combine in order to provide greater customizability to the clubs by allowing the club creator to use the club-creation interface to populate the mobile information channels with initial content, before the club is launched and made available to other members. (EX1002, ¶202.) This would have allowed the club founder to ensure that other members would not experience a "blank" club devoid of content, because under the proposed combination, the club founder could have populated its mobile information channels (such as the club message board) with at least 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 proposed combination using conventional techniques. (EX1002, ¶203.)

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 13,984 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. 8,793,336 B2,** including all exhibits (**Nos. 1001-1010, 1012-1013, 1022-1027**) 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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