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 IPR2023-00250
U.S. Patent No. 9,922,348 B2
Issue Date: March 30, 2018

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

PETITION FOR *INTER PARTES* REVIEW OF U.S. PATENT NO. 9,922,348 B2

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   (c) "integrating the first and second device-captured data…" (13[c]) 42

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List of Exhibits

Exhibit No.	Description of Document
1001	U.S. Patent No. 9,922,348 B2 to David Walker Harper et al. (filed March 2, 2017, issued March 20, 2018) ("'348" or "'348 patent")
1002	Declaration of Vijay K. Madisetti, Ph.D. ("Madisetti")
1003	Excerpts from Alan Neibauer, *How to Do Everything With Yahoo!* (2000) ("Neibauer")
1004	***RESERVED***
1005	U.S. Patent No. 7,574,486 B1 to Yin Cheng et al. (filed November 8, 2000, issued August 11, 2009) ("Cheng")
1006	U.S. Patent No. 6,434,403 B1 to Michiel R. Ausems et al. (filed February 19, 1999, issued August 13, 2002) ("Ausems")
1007-1009	***RESERVED***
1010	U.S. Patent No. 6,487,583 B1 to Jamey Harvey et al. (filed February 25, 2000, issued November 26, 2002) ("Harvey")
1011	U.S. Patent Application Publication No. 2001/0015759 A1 to Robert Francis Squibbs (filed February 21, 2002, published August 23, 2001) ("Squibbs")
1012	Excerpts from Uwe Hansmann et al., *Pervasive Computing Handbook* (2001) ("Hansmann")
1013	Excerpts from David Fox & Troy Downing, *HTML Web Publisher's Construction Kit* (1995) ("Fox")
1014	U.S. Patent No. 6,907,566 B1 to Charles McElfresh et al. (filed April 2, 1999, issued June 14, 2005) ("McElfresh")

List of Exhibits

Exhibit No.	Description of Document
1015-1017	***RESERVED***
1018	Excerpts from Sean Wagstaff, *Animation on the Web* (1999) ("Wagstaff")
1019	U.S. Patent No. 6,874,146 B1 to Sridhar Iyengar (filed June 30, 1999, issued March 29, 2005) ("Iyengar")
1020	U.S. Patent No. 6,311,185 B1 to Robert E. Markowitz (filed October 30, 1997, issued October 30, 2001 ("Markowitz")
1021	Excerpts from *Microsoft Computer Dictionary* (5th ed. 2002)
1022	File history of U.S. Patent No. 9,922,348 B2
1023	***RESERVED***
1024	Excerpts of file history of *Inter Partes* Reexamination of U.S. Patent No. 8,135,801 B2
1025	Joint Claim Construction Statement, Dkt. 51, *Mobile Data Technologies LLC v. Meta Platforms, Inc.*, Case No.7:22-cv-00244-ADA-DTG (W.D. Tex. filed September 13, 2023)
1026	Declaration of Sylvia D. Hall-Ellis, Ph.D. ("Hall-Ellis")
1027	Proof of Service of Complaint

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

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

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

B. Related Matters under §42.8(b)(2)

The ’348 patent is the subject of pending litigation involving Petitioner: *Mobile Data Technologies LLC v. Meta Platforms, Inc.*, Case No.7:22-cv-00244-ADA-DTG (W.D. Tex.). Petitioner was served on December 6, 2022. (EX1027.)

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

Petitioner provides the following designation of counsel.

LEAD COUNSEL	BACK-UP COUNSEL
Heidi L. Keefe (Reg. No. 40,673) hkeefe@cooley.com COOLEY LLP ATTN: Patent Group 1299 Pennsylvania Ave. NW, Suite 700 Washington, DC 20004 Tel: (650) 843-5001 Fax: (650) 849-7400	Phillip E. Morton (Reg. No. 57,835) pmorton@cooley.com COOLEY LLP ATTN: Patent Group 1299 Pennsylvania Ave. NW, Suite 700 Washington D.C. 20004 Tel: (202) 728-7055 Fax: (202) 842-7899
	Andrew C. Mace (Reg. No. 63,342) amace@cooley.com COOLEY LLP ATTN: Patent Group 1299 Pennsylvania Ave. NW, Suite 700 Washington D.C. 20004 Tel: (650) 843-5287 Fax: (650) 849-7400
	Mark R. Weinstein (Admission *pro hac vice* to be requested)

LEAD COUNSEL	BACK-UP COUNSEL
	mweinstein@cooley.com COOLEY LLP ATTN: Patent Group 1299 Pennsylvania Avenue NW Suite 700 Washington D.C. 20004 Tel: (650) 843-5007 Fax: (650) 849-7400

D. Service Information

This Petition is being served by Federal Express to the attorney of record for the ’348 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 20 claims, with a $41,500 payment.

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

A. Grounds for Standing

Petitioner certifies that the ’348 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	1-3, 6-9, 12-14, 17-18	Neibauer (**EX1003**), Ausems (**EX1006**), Cheng (**EX1005**)
2	4-5	Ground 1 Prior Art + Squibbs (**EX1011**)
3	10-11, 15-16, 19-20	Ground 1 Prior Art + McElfresh (**EX1014**)
4	1-3, 6-9, 12-14, 17-18	Ground 1 Prior Art + Harvey (**EX1010**)
5	4-5	Ground 2 Prior Art + Harvey (**EX1010**)
6	10-11, 15-16, 19-20	Ground 3 Prior Art + Harvey (**EX1010**)

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

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

§314(a): The *General Plastic* factors are not relevant as this is the first and only IPR petition filed by Petitioner with respect to the '348 patent.

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

§325(d): The two-part *Advanced Bionics* framework considers: **(1)** whether the same or substantially the same art was previously presented to the Office and if so **(2)** whether Petitioner has demonstrated that the Examiner erred in a manner material to the patentability of challenged claims. *Advanced Bionics* does not apply to Ausems (**EX1006**), Harvey (**EX1010**), and McElfresh (**EX1014**), as these references were not considered during prosecution.

But three relied-on references were considered during prosecution – Neibauer (**EX1003**), Cheng (**EX1005**) and Squibbs (**EX1011**). But the sole mention of these references was their inclusion on Information Disclosure Statements filed by the Applicants that were considered by the Examiner. (EX1022, 00195 & 00212 (excerpts of Neibauer), 00174 (Cheng), 00177 (Squibbs).) These references were among hundreds of prior art references cited during prosecution.

Petitioner respectfully submits that the Examiner's consideration of these references does not raise § 325(d) issues in light of the uneventful prosecution history. The initial Office Action rejected the pending claims (1-20) based entirely on double-patenting grounds. (EX1022, 00155-00158.) The applicants responded by canceling their original claims and proposing new claims (21-40). (EX1022, 00219-00225.) The Examiner subsequently issued a Notice of Allowance with respect to all claims. (EX1022, 00255-00258.) In his statement of reasons for allowance, the Examiner identified U.S. Patent Application Publication No.

2002/0133448 A1 to Glenn McGarry as the closest prior art, but stated that it did not disclose at least the claimed functions of receiving and integrating first and second device-captured data. (EX1022, 00256.) The Examiner did not provide a more detailed explanation of the failings of McGarry, which was not otherwise mentioned during prosecution. No rejections were entered based on prior art.

Petitioner respectfully submits that the Examiner materially erred in failing to rely on Neibauer, Cheng and Squibbs to reject the challenged claims. These references confirm that all limitations of the claims were obvious in view of the prior art – including the limitations that the Examiner found missing from McGarry, as detailed in **Part VI** below. In fact, the PTO cited and relied on both Neibauer and Cheng in the successful reexamination of U.S. Patent No. 8,135,801 B2, an earlier patent in the same family with similar claims, which resulted in cancellation of all claims. (EX1024, 004 (PTAB decision affirming prior art rejections and listing Cheng and Neibauer), 0018-0019 (Federal Circuit affirmance).)

IV. OVERVIEW OF THE PATENT

A. Level of Ordinary Skill

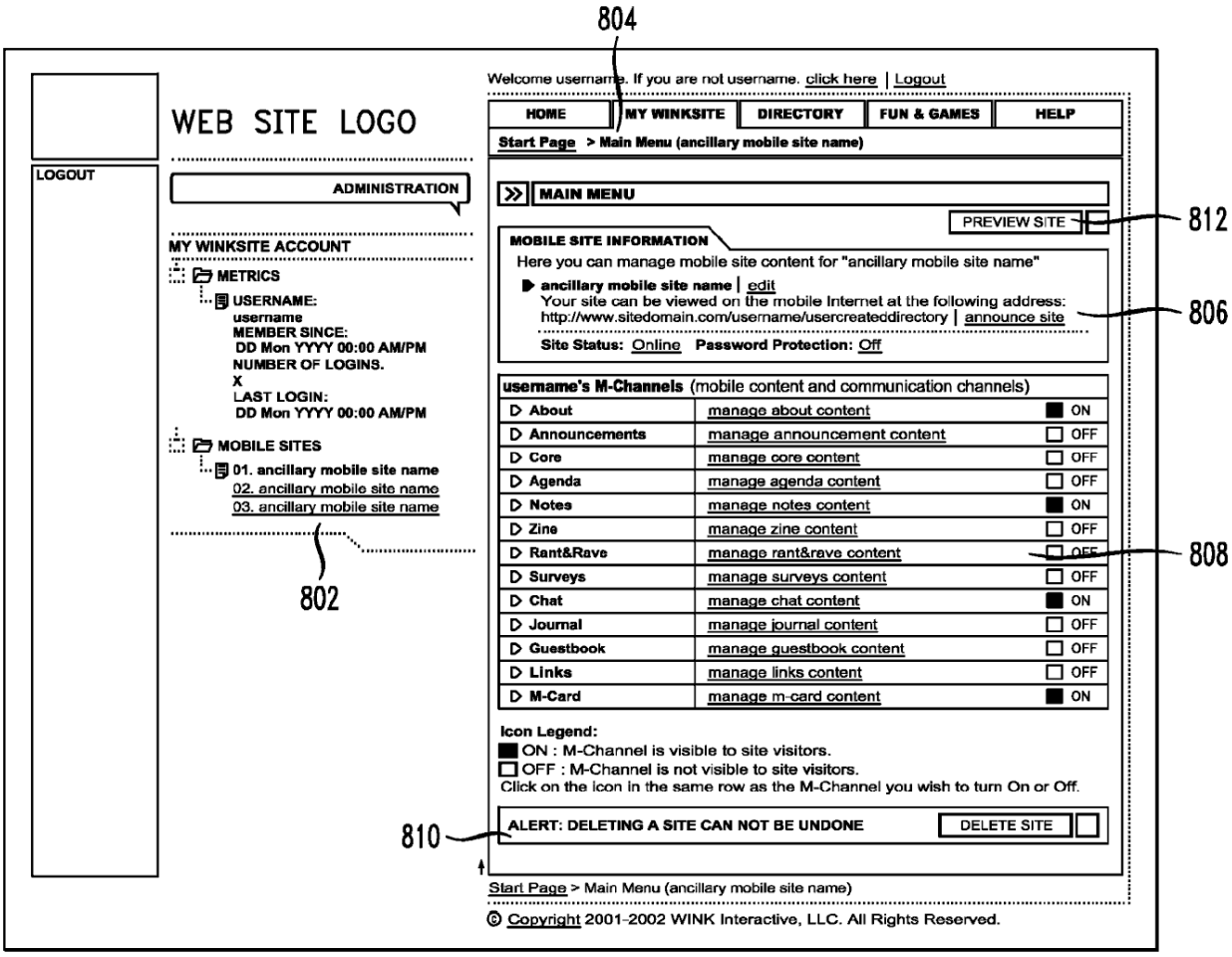
A person of ordinary skill would have possessed a bachelor's degree in electrical engineering, computer science, or similar field, with two years of experience in developing and implementing network-based computer systems that interact with mobile devices, such as systems for storing and retrieving information

over the Internet or communicating using the Web using wireless mobile devices. (EX1002, ¶¶14-18.)

B. Specification Overview

In one embodiment, the patent describes a technique in which a user, through a website referred to in the patent as a ***content management*** website, can activate mobile information channels (or M-channels) for a ***mobile*** website. "The content management site permits the user to enter information in accordance with a specified format comprising a plurality of selectable mobile information channels each corresponding to an information category. The mobile information channels are also referred to as 'M-channels' herein…." ('348, 5:34-40.) 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

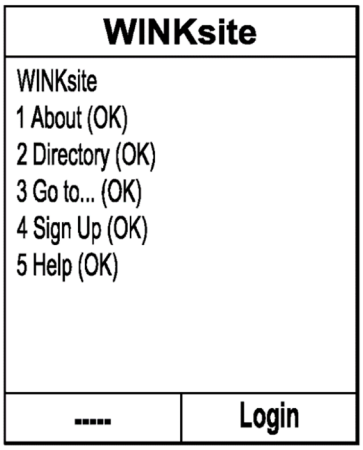


('348, Fig. 8, 14:1-3.) Figure 8, as shown, includes mobile website information **806** and M-channel information **808** making mobile information channels visible on the mobile website. ('348, Fig. 8, 14:1-16.) These M-channels are "utilized at the content management site… to facilitate the generation of mobile sites and the management of associated content." ('348, 8:27-30.) Mobile information channels thus "allow unsophisticated users to easily and efficiently author message data or other types of information content to be made accessible via a collaborative workspace, a data mailbox, a collaborative community, or other type of mobile site

or portion thereof generated or otherwise managed in the system **10**." ('348, 8:30-36; *see also id.*, 8:46-60 (listing exemplary M-channels).)

Information and selections provided by the user through the content management website are "processed to generate a mobile web site comprising information content that is accessible via one or more of the mobile devices **15** over the wireless network **12** of the system **10**." ('348, 5:40-43.) An example screen display from a mobile website is shown in Figure 24a (at right). ('348, 3:41-43, 15:30-33.) In one embodiment, a mobile device for use with the alleged invention may be "a web-enabled mobile phone," but the patent "does not require use of any particular type or configuration of mobile device." ('348, 15:21-25.)

FIG. 24a



V. CLAIM CONSTRUCTION

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

VI. THE CHALLENGED CLAIMS ARE UNPATENTABLE

A. Overview of Grounds

The challenged claims attempt to lay claim to techniques for allowing users to share information over the Internet with other users via mobile devices. But these techniques were well-known before the '348 patent.

All grounds rely on Neibauer (**EX1003**), which describes features of the popular Yahoo! website and service. (EX1002, ¶¶48-50.) Neibauer discloses a feature called Yahoo! Clubs that allows users to create web-based communities for users to share information through photo sharing and other features. (EX1002, ¶¶51-52, 114-115; Neibauer, pp.477-480.) Neibauer also discloses the ability to access Yahoo! services via mobile devices such as cell phones. (EX1002, ¶¶56, 103; Neibauer, pp.166-174.) Neibauer is a strong reference that discloses and renders obvious the majority of the claim limitations and, as observed in **Part III.C** above, was relied upon by the PTO in rejecting all claims of an patent in the same family.

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, ¶¶59-60.) Cheng describes a proxy server that can convert any existing (non-mobile) webpage for use on a mobile device. (EX1002, ¶¶61-65, 102-103.) As noted in **Part III.C** above, Cheng was also cited in the successful earlier reexamination of a patent in the same family.

Ausems (**EX1006**) is cited for the unremarkable proposition that a mobile device can obtain image data from a digital camera. (EX1002, ¶¶68-70.)

Ground 2 cites to Squibbs (**EX1011**) for location-based features of certain dependent claims. Ground 3 cites to McElfresh (**EX1014**) for the data feed limitations certain dependent claims. Grounds 3-6 are substantially similar to Grounds 1-3, but add Harvey (**EX1010**), solely to account for a potential construction of "**web-based shared information channel**" proposed by Petitioner in the pending litigation. If the Board chooses not to adopt that construction here, it need not consider these additional grounds.

B. Prior Art Status of Relied-Upon References

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

C. Ground 1: Claims 1-3, 6-9, 12-14, and 17-18 Are Obvious Over Neibauer In View Of Ausems and Cheng.

1. Independent Claim 1

As detailed below, Neibauer discloses features of a Yahoo! service known as Yahoo! Clubs. (Neibauer, pp.473-483.) Neibauer explains that "[a] *club* is a group of Yahoo! members who share a common interest. Each club has its own message board, chat room, as well as places to share photographs, news, addresses, and links." (Neubauer, p.473 (italics in original).) Yahoo! members could also create their own clubs, as described in detail for limitation 1**[a]**. (Neibauer, pp.480-82.) An exemplary club created by a member is shown in Figure 21-13:

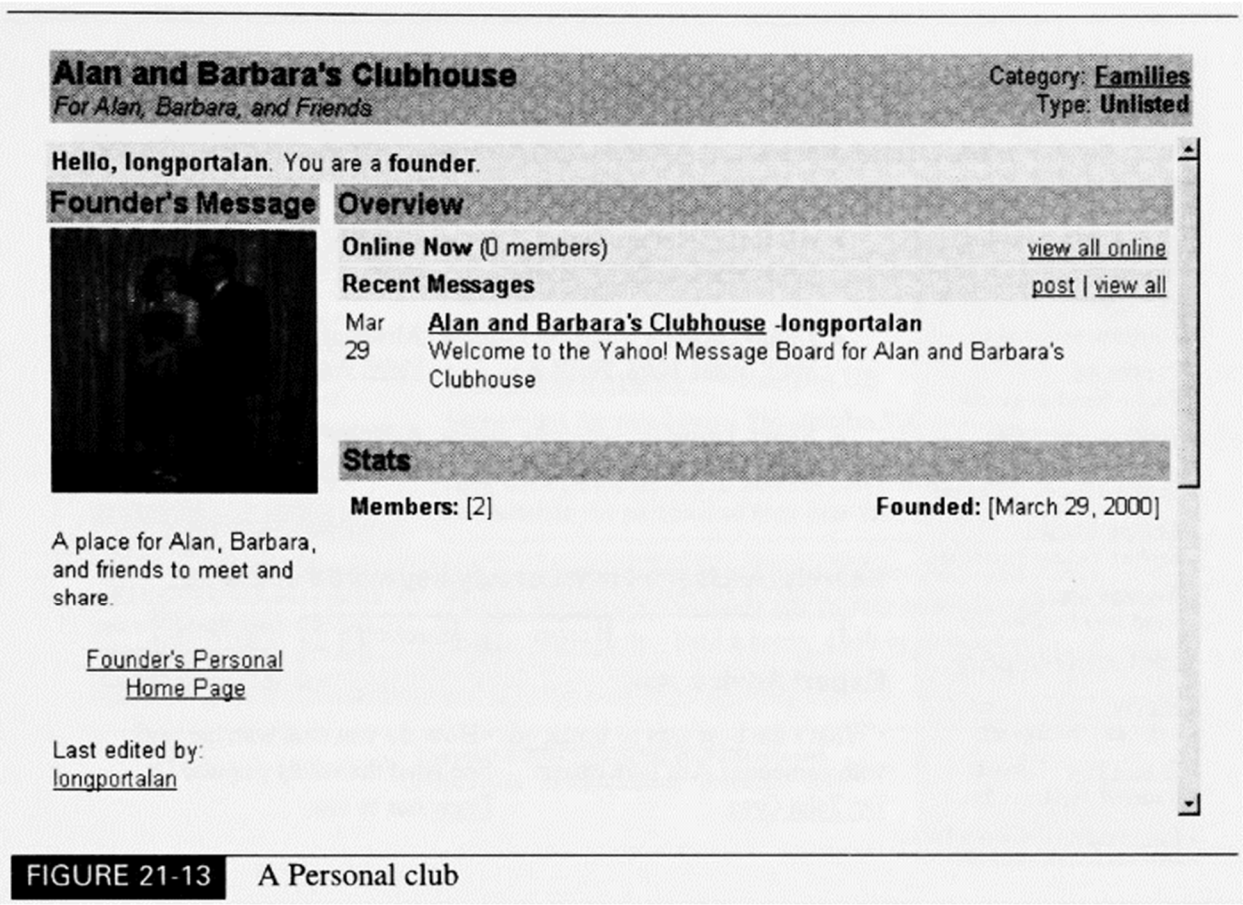


FIGURE 21-13 A Personal club

(Neibauer, p.483, Fig. 21-13.) A club founder can manage the information on a club such as messages and photos shared with other members of the club. (Neibauer, pp.478-480.) For purposes of claim 1, Petitioner will focus primarily on the club photo sharing feature in Neibauer. As explained in Neibauer:

> **Sharing Photographs**
>
> The Photos option in the Our Pages section lets members share photographs and other graphics. Each club is given 5 MB of space to store photographs. The photos are organized into up to 30 albums, each with no more than 24 photos.
>
> There are two types of albums: group and personal. Any member can place a photo in a group album and delete photos that he or she added as well. Only the creator of a personal album can add or delete photographs.

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

The preamble of claim 1 recites "[**a**]**n apparatus comprising** …" As detailed below, it would have been obvious based on Neibauer alone, or in combination with Cheng, to make the clubs features of Neibauer (including the club photo sharing feature) available to club members via mobile devices. The claimed "**apparatus**," as explained in detail below, includes one or more servers that operate to make these features available to mobile devices and that carry out the functions in claim 1.

(a) "a processing element comprising a processor coupled to a memory; and;" (1[a])

(b) "a network interface coupled to the processing element and configured to communicate with a plurality of mobile devices over at least one network;" (1[b])

It would have been obvious that the claimed apparatus would have included at least one "**processing element**," such as at least one server to carry out the clubs functions in Neibauer. A claimed processor coupled to a memory is also a basic component that any server would need in order to function. (EX1002, ¶109.) It would also have been obvious that the claimed apparatus would have included a "**network interface**," a basic component a server needs in order to communicate over a network such as the Internet. (EX1002, ¶113; Neibauer, p.473 ("Access Yahoo! clubs by clicking Clubs on the Yahoo! home page or by going directly to http://clubs.yahoo.com to open the page shown in Figure 21-6."), p.64 ("**http://** This is the prefix for the standard type of Internet Web site. The letters stand for Hypertext Transfer Protocol.") (bold in original), p.22 ("Each Yahoo! member gets 3MB of mail space on the Yahoo! server to store messages.").) These components are also separately and expressly disclosed in Cheng, discussed below.

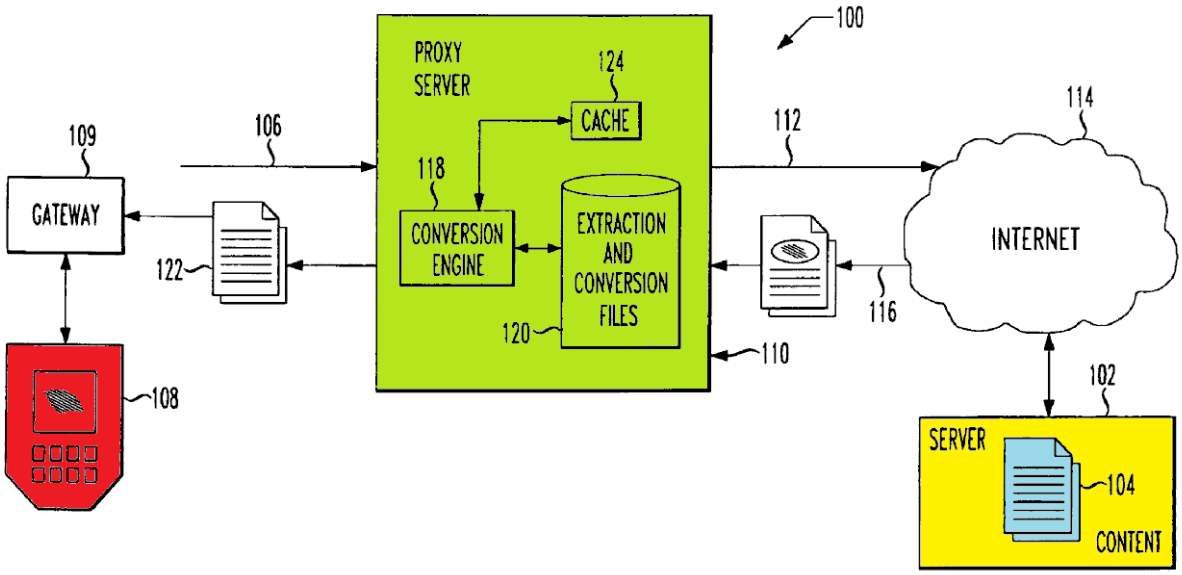
Limitation 1**[b]** further states that the "**network interface**" is configured to communicate "**with a plurality of mobile devices over at least one network**." It would have been obvious that the processing element would have been able to communicate with mobile devices over a network such as the Internet. The '348

patent itself expressly defines a "mobile device" as including, among other things, a laptop computer. ('348, 4:45-55.) It was well-known that conventional laptop computers provided the same functionality as desktop computers and could run web browser software and visit web pages on the Internet. (EX1002, ¶112.) It therefore would have been obvious that the Yahoo! website, including the club photo sharing feature discussed above, would have been accessible to a user of a mobile device such as a laptop computer. (*Id.*)

Neibauer also 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 Yahoo! Clubs was one of the Yahoo! features that could be made accessible via mobile devices, it would have been obvious to the extend mobile device functionality in Neibauer to cover that feature, in order to allow user-created clubs to be accessed by users via mobile devices. This would have been viewed as a logical (and obvious) extension to the existing mobile features described in Neibauer. (EX1002, ¶104.)

Communicating with a plurality of "**mobile devices**" would also have been obvious over Neibauer and in further view of Cheng (**EX1005**). Cheng relies on an already-established technology known as "proxy servers," which were commonly used to provide security and interoperability between devices. (EX1002, ¶63.) Cheng relies on this proxy server concept to convert non-mobile webpages into a format accessible by mobile devices. Figure 1 illustrates one embodiment:

FIG. 1



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

The right side of Figure 1 above shows an origin web server **102** that contains original web page **104**. (Cheng, 3:36-37.) "The web page **104** is typically an HTML file with references to any component .wav, .mov, and/or Joint Photographic Experts Group (JPEG) files, which together comprise the web page **104**." (Cheng, 4:10-13.) "It is envisioned that each instance of web content **104** each have associated

therewith a URL." (Cheng, 3:56-57.) Web page **104** in Cheng could have been any web page in HTML format reachable via the Internet, such as any web page from the Yahoo! website as described in Neibauer. (EX1002, ¶96.)

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

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

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

shown in Figure 1, mobile device **108** can issue a request **106** for an original web page **104** using standard HyperText Transport Protocol (HTTP), as was well-known in the art, with the request **106** being received by proxy server **110**. (Cheng, Fig. 1, 2:19-21, 3:58-67, 7:65-8:2; EX1002, ¶¶65, 99.) "Upon determining that the requested page **104** resides at the server **102**, the proxy server **110** makes a request **112** for the page. As shown, the proxy server **110** and the server **102** are connected via a network **114** such as the Internet." (Cheng, 3:65-4:2; *see also id.*, 2:21-24.)

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

Rationale and Motivation to Combine (Neibauer with Cheng): It would have been obvious to combine Neibauer with Cheng, predictably resulting in the club features relied upon in Neibauer being made available to mobile devices over the Internet. Under the proposed combination, the web pages in Neibauer relied upon for claim 1, including the first interface and second interfaces of claim 1 (which

will be discussed in more detail for later claim limitations), would have been translated and delivered to mobile devices using the techniques in Cheng. (EX1002, ¶101.) Neibauer is an analogous reference in the same field of network-based communication systems for managing information content and would have been reasonably pertinent to problems facing the inventors. (EX1002, ¶103.) Cheng is also an analogous reference and would have been reasonably pertinent to several problems facing the inventors, including making web-based information content available on mobile devices. (*Id.*)

With respect to the particular features in limitations 1**[a]-[b]**, the claimed "**processing element**" under the further combination with Cheng would have included origin web server **102** in Cheng (which would take the form of the web server providing the Yahoo! features disclosed in Neibauer), and proxy server **110**, would have together comprised "**a processing element comprising a processor coupled to a memory**." Petitioner notes that mapping the claimed "**processing element**" to origin web server **102** <u>and</u> proxy server **110** is consistent with the '348 patent, which makes clear that a processing element or server can itself comprise multiple servers. ('348, 9:21-24 ("Each of the servers **33**, **35**, **37** and **39** [of processing elements **30**] may comprise one or more of the servers **16** or other elements shown in FIG. 1A, or suitable portions or combinations thereof.").)

And even if the claim required that the "**processing element**" be contained

within a single physical server (it does not), it would have been obvious to combine proxy server **110** and origin server **102** into a single server. (EX1002, ¶111.) 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.)[1] This would have been obvious and trivial, as ordinarily skilled artisans would have been familiar with well-known techniques for consolidating tasks within a single server when needed. (EX1002, ¶111.) For example, a skilled artisan would have been motivated to combine these servers to improve performance of the overall system, as this would have eliminated the step (and network overhead associated with) origin server **102** having to send the original web page **104** to proxy server **110** over the Internet. (*Id.*)

With respect to the claimed "**network interface**," Cheng discloses a communications port as part of proxy server **110** that facilitates communication over a network such as the Internet. (EX1002, ¶161; Cheng, 23:44-51 ("Communications with external devices… occur utilizing communication port **1516**…."); Neibauer, p.4 (explaining that Yahoo! members need access to an Internet connection).) Alternatively, the "**network interface**" is also disclosed by gateway **109** in Cheng,

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

which in this scenario would have been part of the claimed "**processing apparatus**" and would have provided an interface between mobile devices and proxy server **110**. (Cheng, 3:33-36 ("If necessary, a gateway **109** may optionally be provided that interfaces between, for example, the mobile device **108** and the proxy server **110**.").)

The proposed combination of Neibauer and Cheng 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, ¶¶102, 106-107; 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 **102**. (EX1002, ¶102.) 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, ¶¶102, 106-107.)

An ordinarily skilled artisan would have been motivated to combine. As noted, Neibauer itself expressly suggests the proposed combination by disclosing services such as "Yahoo! Mobile" and "Yahoo! To Go" that enabled content from Yahoo! services to be provided to mobile devices. (Neibauer, pp.166-174.) A skilled artisan would also have been motivated to make the club features available

to mobile devices to take advantage of growing popularity of mobile computing and mobile devices. (EX1002, ¶¶105-106.) Cheng explains that "users of wireless devices now demand that businesses deliver web content for viewing on desktop, or mobile/portable (e.g., handheld) devices." (Cheng, 1:18-22.) The '348 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." ('348, 1:35-39.) Market forces would thus have motivated a skilled artisan to combine Neibauer with Cheng in order to provide the club functionalities to users of mobile devices. (EX1002, ¶105.)

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, ¶106.) As a further motivation to combine, the proxy server techniques in Cheng were already well-known and already deployed for the very purpose of converting web page content into formats suitable for mobile devices. (EX1002,

¶107.) A skilled artisan would also have had a reasonable expectation of success as Cheng relies on known and industry-standard technologies. (EX1002, ¶108.)

(c) "the processing element being configured:" (1[c])

As explained below, each of the functions of limitation 1**[c]** is performed by the claimed "**processing element**" identified in 1**[a]** above.

(1) "to receive first device-captured data from a first one of the mobile devices via the network interface;" (1[c][1])

As noted in the preamble, Neibauer discloses a photo sharing feature that allows a club member to select a photo to upload and share with club members. (Neibauer, p.477.) As explained in Neibauer:

> **Adding a Photograph to an Album**. You can add a photo to an album starting from the list of albums or the list of photos in an album. Just follow these steps:
>
> **1**. If you are viewing the Photo Albums page, click Add Photo on the right side of the name of the album where you want to insert the photo. If you are looking at the list of photos already in an album, click the Add Photo button on the top of the page.
>
> **2**. In the page that appears, enter either the path and name of the photo on your disk or click Browse to locate the file. You can also click the On The Web link to designate a photograph located on a Web page.
>
> **3**. Enter a name and description of the photo.
>
> **4**. Select an option from the Resize Photo section. Resizing allows

> Yahoo! to adjust the size of the photograph to make better use of the club's Web space and to make the photos easier to view. You can select Don't Resize, Large, Medium, or Small.
>
> **5**. Click Preview to see how your photo will appear, or click Upload to move a copy of the photo into the club's Web space.

(Neibauer, pp.477-478; *see also* pp.477-478 (showing clickable "Add Photo" option available on album pages).)

Neibauer, alone and in combination with Cheng, therefore renders obvious the processing element being configured "**to receive first device-captured data from a first one of the mobile devices via the network interface**," by allowing the user to upload a photo over the Internet using its mobile device. It would have been obvious that the photo would have been "**first device-captured data**," such as a digital photograph. (EX1002, ¶117; Neibauer, p.478, Fig. 21-10 (showing exemplary club photo album listing photos of Denise Richards and Famke Janssen).)

The photo would have been received by the server from the mobile device, and more specifically under the proposed combination with Cheng, by the proxy server **110** and origin web server **102**. The photo would also have been received "**via the network interface**," as explained in 1**[b]**, because that interface would have facilitated communications between the mobile device and the processing element 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.").)

Petitioner observes that claim 1 merely recites that device-captured data be received "**from a first one of the mobile devices**," which does not appear to require that the data actually have been captured using the mobile device itself (such as with a built-in camera). Nevertheless, to the extent the claim were interpreted to impose such a requirement, it would have been obvious that the photo uploaded by a club member to have been captured by the mobile device itself. This is because portable communications devices prior to June 2002 included digital cameras that allowed devices to capture, store, and transmit digital images. (EX1002, ¶118.) In the event Patent Owner argues that incorporation of digital cameras into mobile devices was not known as of June 2002, Petitioner has also cited Ausems (**EX1006**) to show an example of a mobile communications device that, among other things, incorporated a digital camera for recording, storing, and transmitting digital images.

Ausems explains that, as of its February 1999 filing date, wireless telephones and handheld Personal Digital Assistants (PDAs) had become popular. (Ausems, 1:12-19.) Ausems further explains that "[i]ncreasingly, wireless telephones are being combined with PDAs in order to perform more advanced functions, such as transmitting, receiving and displaying text messages." (Ausems, 1:27-30.) Ausems discloses a portable mobile device that combines the functionality of a PDA with a wireless telephone. (Ausems, 3:5-8.) PDA telephone device **100** includes, among other things, a touchscreen display. (Ausems, *e.g.*, 1:57-58, 4:30-39, 6:9-14.) The

PDA telephone **100** can also run a mobile operating system such as Microsoft Windows CE or Palm, and "may include a web browser in order to facilitate Internet access for a PDA telephone **100**." (Ausems, 7:64-8:5.)

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

Rationale and Motivation to Combine (Neibauer and Cheng with Ausems): It would have been obvious to combine Neibauer and Cheng with Ausems, predictably resulting the system under the proposed combination, further adapted such that the processing element would have received a photo captured by the mobile device itself, to the extent limitation 1**[c][1]** is interpreted to impose such a requirement. (EX1002, ¶122.) For example, the club member would have obtained image data using a digital camera of its mobile device, which would have been uploaded to the processing element for sharing with others using the club photo sharing feature. (Neibauer, pp.477-478.) Ausems is an analogous reference in the same field of wireless and mobile communications, and would have been reasonably

pertinent to problems facing the inventor including how to capture data using a mobile device and share that data with other users. (EX1002, ¶123.)

An ordinarily skilled artisan would have been motivated to combine, as the ability to share media data captured by the mobile device would have expanded the universe of image data that the club member could share with others. (EX1002, ¶124.) This is because the club member would not be restricted to sharing preexisting images obtained from third parties (that others may have already seen); the member could instead capture a potentially infinite number and variety of its own images (via the digital camera in its mobile device) and share them with other club members. (*Id.*) A skilled artisan would also have had a reasonable expectation of success, as mobile communications devices with digital cameras and the ability to transmit captured images were known. (EX1002, ¶125.)

(2) "to receive second device-captured data from a second one of the mobile devices via the network interface; and;" (1[c][2])

This limitation merely repeats the function as 1**[c][1]**, but for a "**second one of the mobile devices**." The same analysis above applies here because, under the proposed combination, a second club member could have used its second mobile device to upload a different photo to a group album using the same technique described above for limitation **1[c][1]**. (Neibauer, e.g., p.477 ("Any member can place a photo in a group album….").) Cheng confirms that multiple mobile devices

can be used with his proxy server techniques. (Cheng, e.g., 5:11-12, 5:26-29.) This would have allowed both the first and second mobile devices to use and add photos to the club photo sharing feature described in Neibauer. (EX1002, ¶126.)

(3) "to integrate the first and second device-captured data into a web-based shared information channel controllably accessible to first and second users of the respective first and second mobile devices via respective personalized content applications of the first and second mobile devices." (1[c][3])

Under the proposed combination, photos uploaded by club members would have been integrated into the club photo sharing feature ("**a web-based shared information channel**"), as described below.

The club photo sharing feature provides a user interface for allowing members to select a photo album and view the photos within that album. First, with respect to selection of an album:

Photo Albums

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

Album Name	Pictures	Creator	Type	Add Photo	Edit	Delete
Blueraja's BOND GIRL Album	12 (278 KB)	blueraja3	Group	Add Photo		
James Bond	21 (287 KB)	shaner303	Group	Add Photo		

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

The James Bond Movie Series Category: James Bond Serie
The James Bond place to talk about the movies. Club Type: Liste

Blueraja's BOND GIRL Album Back To: Album List

Created by blueraja3 on 22-Nov-1999

Showing 1 - 12 of 12 photos | View Thumbnails Add Photo

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

FIGURE 21-10 Club photo album

(Neibauer, p.478, Fig. 21-10.) Figure 21-10 above shows a partial list of photographs stored in the selected album. "For each photo you will see the title, contributor's name, the photo's size, and the date it was posted. Click a photo to see the photo on your screen." (Neibauer, p.477.) Although the example in Figure 21-10 shows provided received from one contributor (blueraja3), as noted, any member can post a photo that will be accessible through a group album. (Neibauer, p.477 ("Any member can place a photo in a group album….").) It therefore would have been obvious that when two club members upload photos to a particular club photo album, pursuant to limitation 1**[c][1]-[c][2]**, that photo album would have included

and listed the photos provided by both members. (EX1002, ¶128.) The proposed combination therefore renders obvious "**integrat**[ing] **the first and second device-captured data into a web-based shared information channel**," because the photos provided by the first and second users to a photo album would have been incorporated into the club photo sharing feature within the album.

The club photo sharing feature of Neibauer also discloses a "**web-based shared information channel**." Petitioner observes that the term "**web-based shared information channel**" does not appear anywhere in the '348 patent outside the claims. The written description instead refers to "mobile information channels" or "M-channels." ('3488, *e.g.*, 5:34-39.) The patent explains that "M-channels allow unsophisticated users to easily and efficiently <u>author message data</u> or other types of information content to be made accessible <u>via a collaborative workspace</u>, a data mailbox, <u>a collaborative community</u>, or other type of mobile site or portion thereof generated or otherwise managed in the system **10**." ('348, 8:27-36.) In fact, the '348 patent expressly identifies, as examples of mobile information channels, "discussion forum," "chat," and "photo blog" ('348, 8:46-57), which echo the club features in Neibauer including the "photo blog" that mirrors the club photo sharing feature. The club photo sharing feature therefore qualifies as an "**web-based shared information channel**" because it provides a web-based medium that allows club members to upload and share view photos.

The club photo sharing feature is also "**controllably accessible to first and second users of the respective first and second mobile devices via respective personalized content applications of the first and second mobile devices**," because the two club members would have accessed the club photo sharing feature over the Internet via their mobile devices. (EX1002, ¶132.) The web browsers on the mobile devices also comprise "**personalized content applications**." This is consistent with the plain and ordinary meaning of "application" in this context, which simply refers to a software program for carrying out a particular task. (EX1002, ¶132; *Microsoft Computer Dictionary* (5th ed. 2002) (**EX1021**), p.31 ("**application** *n*. A program designed to assist in the performance of a specific task, such as word processing, accounting, or inventory management.") (bold and italics in original).) Under the proposed combination, each club member would have used the web browsers on their mobile device to post personalized content using the club photo album feature. (Neibauer, p.477-479.) For example, each club member can create their own "personal photo album," where the member can add photos to share with other members. (Neibauer, p.477.) Neibauer discloses numerous other club features that enable a member to create and view personalized content, including personalized messages using the private message board. (Neibauer, p.483, Fig. 21-13 (showing personalized "Welcome" message posted by club founder).) A club member can also engage in online chat with other club members. (Neibauer, p.479.)

These features are "**controllably accessible**" to the first and second users through the club home page, as shown below:

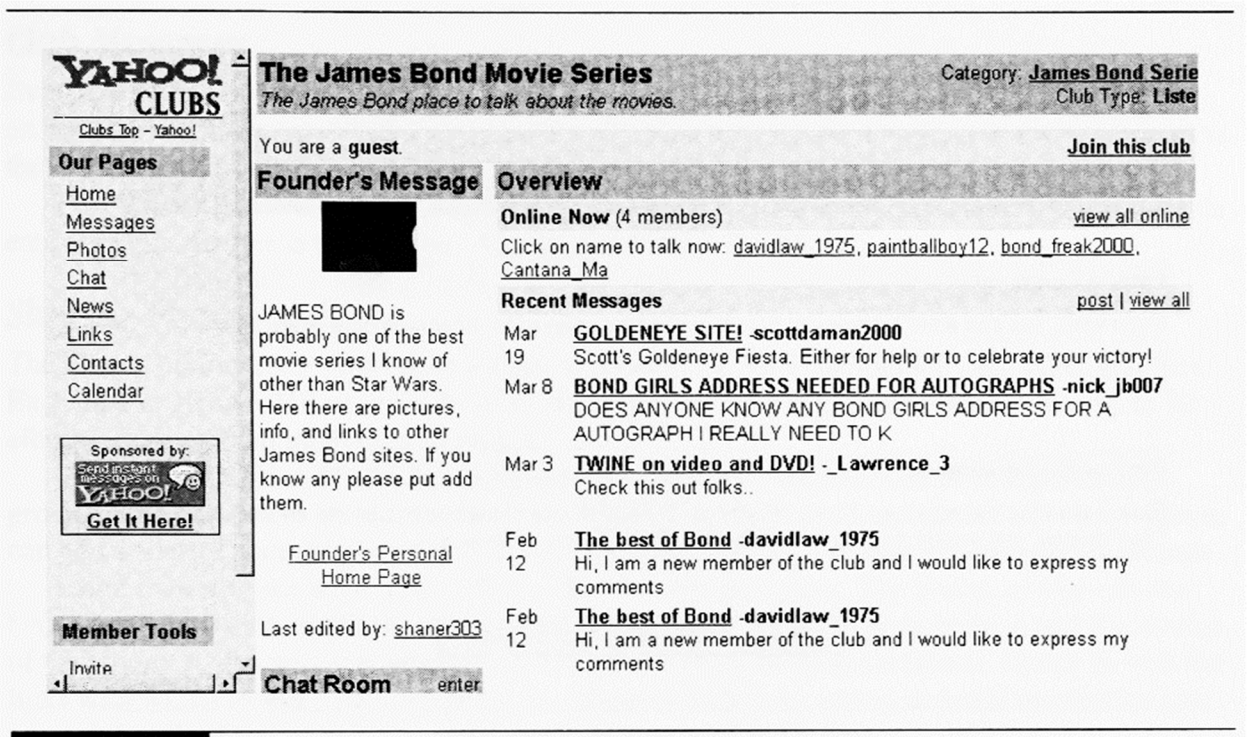


FIGURE 21-8 Club page

(Neibauer, p.475, Fig. 21-8.) The features of the club can be controllably accessed by users from the links shown under "**Our Pages**" on the left side of the club home page as shown in Figure 21-8. Including the photo sharing feature ("**Photos**"). (Neibauer, pp.477-480.) By allowing the user to access personalized content, under the proposed combination, each the web browser application on each mobile device "**comprises a personalized content application**." This is consistent with the '348 patent, which discloses use of a browser on the mobile device to access content on a mobile website. ('348, 13:21-24 ("The mobile site home page **400** may be accessed,

for example, by entering a corresponding URL of the mobile site into a browser at one of the mobile devices **15**."), 18:59-63 ("Also, the system provides a platform for the development of a wide variety of personalized content applications for users of mobile devices….").)

As a separate and independent theory for the claimed personalized content application, Neibauer discloses the ability of a user to customize their own Yahoo! home page using Yahoo! Companion, a toolbar added to the web browser window. (Neibauer, pp.56.) This feature allows the user, among other things, to personalize and customize aspects the content of the user's My Yahoo! home page as viewed by the browser. (Neibauer, pp.66-74.) This provides another way in which the web browser, under the proposed combination, would have comprised a "**personalized content application**." In either case, the web browser applications on the mobile devices would have been applications that allowed club members to access personalized content through the features described above. (EX1002, ¶133.)

Addressing Proposed Constructions in Pending Litigation: As noted in **Part V** above, no claim construction is needed for purposes of this IPR. Petitioner nevertheless notes that "**web-based shared information channel**" is the subject of a dispute in the pending litigation. Patent Owner contends that this term should be given its plain and ordinary meaning, and if necessary, construed as "*a medium for transferring information accessible to more than one user via the internet*."

(EX1025, at 2.) This construction does not appear to impose any significant limitations and satisfied as discussed above. (EX1002, ¶¶129-130.)

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 "**web-based shared information channel**." *E.g.*, *Glux Visual Effects Tech (Shenzhen) v. Ultravision Techs*, IPR2020-01052, Paper 28, p.33 (PTAB Nov. 17, 2021) ("*Western Digital* states, and we agree, that '37 C.F.R. § 42.104(b)(3) does not require [a p]etitioner to express its subjective agreement regarding correctness of its proffered claim constructions or to take ownership of those constructions,' such as in a district court proceeding.") (citation omitted). Patent Owner contends that this construction is supported by the plain claim language and disclosures from the specification discussed above describing "M-channels" as categories of information content that can be communicated with mobile device users. ('348, *e.g.*, 5:31-40, 8:26-36, 8:46-60.)

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

programming to create and manage content on a mobile web site, or a portion thereof." (EX1025, at 3.) These constructions are also satisfied by the proposed combination because, as discussed above, Neibauer discloses a web-based user interface for creating a club that provides a virtual location at a content management website, *i.e.*, the portions of the Yahoo! website for club creation and management that allow a club founder to create and manage content for the club. (Neibauer, pp.480-82.) It would have been obvious that the content management site in Neibauer would have further allowed the club founder to add user-authored content to the club. (Neibauer, pp.480-482 (describing how to create clubs and add content such as club name and photo); EX1002, ¶131.) 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 add Harvey (**EX1010**), to address Petitioner's proposed construction of application-based information channel, in the event it is adopted for purposes of this IPR and the prior art for Ground 1 is somehow found insufficient on this point.

2. Claim 2: "The apparatus of claim 1 wherein at least one of the first device-captured data and the second device-captured data comprises image data."

As explained for claim 1, both the first and second device-captured data comprises photo (image) data.

3. Claim 3: "The apparatus of claim 1 wherein at least one of the first device-captured data and the second device-captured data comprises video data."

It would have been obvious that the first or second device-captured data would have comprised "**video data**," under at least two different theories. First, it would have been obvious for a club member to upload an image file in GIF (Graphics Interchange Format), which was the *de facto* image standard for images on the Web. (EX1002, ¶135.) It was well-known that GIF files were not limited to a single image – a GIF could contain a number of image frames for display sequentially to create videos or animations. (EX1002, ¶135 (quoting EX1008, pp.235-236 ("[N]o format has come close to gaining the popularity and widespread acceptance of GIFs. This acceptance is due to the ease of creating GIFs… and to the fact that animated GIFs are supported in most browsers without the hassle of installing extra plug-ins.").) It therefore would have been obvious for the first or second "**device-captured data**" of claim 1 to have comprised "**video data**," which is nothing more than a collection of individual (still) images played in sequence. (EX1002, ¶135.)

Cheng expressly discloses the ability to provide, to mobile devices, GIF images on web pages. (Cheng, 4:10-16.) The '348 patent does not place limits on the type, format, or length of "**video data**" that can be provided, and contains only a single brief reference to video. ('348, 17:35-37; EX1002, ¶136.)

Under a second theory, Ausems discloses a mobile device that includes video

capture capabilities. (Ausems, 3:15-22 ("PDA telephone **100** may be equipped with optional enhanced feature sets, including… video conferencing/video capture capabilities…."), 5:17-22 ("Camera **190** records video images and stores them within. PDA telephone **100**. 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).").)

It therefore would have been obvious, under either theory, to implement the proposed combination such that the first or second "**device-captured data**" of claim 1 would have comprised "**video data**," predictably resulting in the club photo sharing feature further providing the ability to upload and share video data. An ordinarily skilled artisan would have been motivated to implement this capability because video data may be more compelling and interesting to some users when compared to single (still) image data. (EX1002, ¶138.)

4. Claim 6: "The apparatus of claim 1 wherein a given one of the first and second mobile devices comprises one of a mobile telephone, a tablet computer, a GPS-based navigational device, a watch and a portable game player."

Cheng and Ausems both confirm that the mobile devices would have comprised at least "**a mobile telephone**." (Cheng, 5:30-35; Ausems, *e.g.*, 3:5-8 ("FIGS 1*a*-1*d* illustrate PDA telephone **100** that provides the combined functionality of a Personal Digital Assistant (PDA) and a wireless telephone…").) Ausems further confirms that each mobile device could have been "**a GPS-based**

navigational device." (Ausems, 5:38-47.)

5. Claim 7: "The apparatus of claim 1 further comprising a web server that includes the network interface and the processing element and wherein the web server is accessible to the first and second mobile devices over the Internet via the network interface."

The "**web server**" for claim 7 corresponds to the combination of origin server **102** (which provides the functions of Neibauer) and proxy server **110** (which makes those functions available to mobile devices), as discussed for limitations 1**[a]-[b]** above These two servers collectively provide a "**web server**" that makes the web pages available to club members who access the photo sharing feature using mobile devices. (EX1002, ¶140.) As fully explained for limitation 1**[a]**, the '348 patent allows a server to comprise more than one server. ('348, 9:21-24; EX1002, ¶110, 140.) The claimed "**web server**" would have included the claimed processing element and network interface as described for limitations 1**[b]-[b]**, and would have been accessible to the first and second mobile devices over the Internet via the network interface, as explained for claim 1. (EX1002, ¶140.) As also explained for limitation 1**[a]** it would also have been obvious to combine origin server **102** and proxy server **110**, to the extent the claim requires a single server. (EX1002, ¶¶111, 140.) Under this alternative theory, therefore, the "**web server**" would also have included the claimed processing element and network interface. (EX1002, ¶140.)

6. Claim 8: "The apparatus of claim 1 wherein the web-based shared information channel is configured to allow a given one of the first and second users to enter a message via the personalized content application of its corresponding mobile device and wherein the message is integrated with the first and second device-captured data into a persistent version of a given set of shared information content of the web-based shared information channel so as to be accessible with the first and second device-captured data to the first and second users of the respective first and second mobile devices via the respective personalized content applications of the first and second mobile devices."

As explained for claim 1, the club photo sharing feature ("**the web-based shared information channel**") allows club members who upload photos to also enter a message via their web browsers, such as a name and textual description of their photos. (Neibauer, p. 478, ¶3 ("Enter a name and description of the photo.").) This message would have been entered, under the proposed combination with Cheng, using the mobile web browser ("**the personalized content application of its corresponding mobile device**"), as described for limitation 1**[c][3]**. This message is then integrated with the photo data as shown in the photo album view:

The James Bond Movie Series Category: James Bond Serie
The James Bond place to talk about the movies. Club Type: Liste

Blueraja's BOND GIRL Album Back To: Album List

Created by blueraja3 on 22-Nov-1999

Add Photo

Showing 1 - 12 of 12 photos | View Thumbnails

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

FIGURE 21-10 Club photo album

(Neibauer, p.478, Fig. 21-10.) Figure 21-10 shows a partial list of photographs stored in an album. For each photo ("**device-captured data**"), the textual name and description ("**message**") entered by the uploading club member is displayed along with a link to the photo itself. (Neibauer, p.477.) For example, the first photo posted above is named "Denise Richards" and described as "Stunning Blue Bikini." As a result, each photo in an album integrates the device-captured data and textual message data into a "**persistent version of a given set of shared information content of the web-based shared information channel**," because both the photo and textual name and description are accessible to users via the club photo sharing feature. A person of ordinary skill in the art would have appreciated that the

integration of the message and photo is "**persistent**" because the two pieces of information are stored in association with each other and viewable together by both the first and second users through the user interface as described in Neibauer. (EX1002, ¶141.) The "**persistent version**" is thus also accessible to the first and second users via their mobile devices and personalized content applications. (*Id.*)

7. Claim 9: "The apparatus of claim 8 wherein the message is delivered to one or more of the mobile devices over a wireless network."

It would also have been obvious that the message of claim 8 would have been delivered to one or more of the mobile devices "**over a wireless network**." (EX1002, ¶142.) For example, Neibauer discloses in connection with the Yahoo! Mobile service that a mobile PDA could have included a "GSM Phone" modem. (Neibauer, p.171, ¶5.) GSM, which stands for **G**lobal **S**ystem for **M**obile Communication, was a dominant wireless (cellular) mobile network in widespread use in the United States the early 2000s. (EX1002, ¶146.) Cheng similarly discloses wireless network device connectivity. (Cheng, *e.g.*, 2:4-7, 5:33 ("a cellular telephone"), 23:44-51 ("… wireless communication (e.g., radio frequency (RF), and the like)").) It therefore would have been obvious that the message would have been delivered to mobile devices over a wireless network, such as a known cellular communications network (like GSM). (EX1002, ¶142.) A skilled artisan would have been motivated to allow mobile devices to provide content over a wireless

network to take advantage of the growing popularity of mobile and wireless computing. (EX1002, ¶¶142, 105.)

8. Independent claim 12: "A network-based communication system comprising a plurality of servers configured to communicate over said at least one network, a given one of the servers comprising the apparatus of claim 1."

This claim is obvious for the same reasons as claim 1. First, the proposed combination renders obvious "[**a**] **network-based communication system comprising a plurality of servers configured to communicate over said at least one network**,"[2] which would have included (under the proposed combination with Cheng) one or more origin servers **102** that contain web page content, along with at least proxy server **110**, that communicate over the Internet. (Cheng, 3:49-53 ("In general, embodiments of the present invention contemplate that architecture **100** comprises <u>one or more servers **102**</u> having web content (in the form of at least one web page **104**), <u>a proxy server **110**</u>, at least one mobile device **108**, and at least one network **114**.").) Claim 12 continues by reciting that "**a given one of the servers compris**[es] **the apparatus of claim 1**." It would have been obvious that "**a given one of the servers**" would have corresponded to proxy server **110** in Cheng along with origin server **102**, as noted, because the '348 patent makes clear that a given server can comprise multiple servers. ('348, 9:21-24.) But to the extent the claim

[2] There is no antecedent basis for "**<u>said</u> at least one network**" in claim 12, and as such, Petitioner has interpreted this language as requiring at least one network.

were interpreted to require a single server, as explained previously, it would have been obvious to combine proxy server **110** with origin server **102** to form a combined server for performing the functions of claim 9. (EX1002, ¶¶144, 111.)

9. Independent claim 13

Claim 13 recites a method with steps that are substantially identical to the functions recited in of apparatus claim 1.

(a) "receiving first device-captured data from a first mobile device over at least one network;" (13[a])

(b) "receiving second device-captured data from a second mobile device over said at least one network;" (13[b])

These limitations are substantially similar to the functions recited in 1**[c][1]**-**[2]** except that these limitations do not require receipt via a "network interface." They are obvious for the same reasons as stated for claim 1. The "**at least one network**" comprises the Internet. (Cheng, 3:67-4:2; Neibauer, p.4 (explaining that Yahoo! members need access to an Internet connection).)

(c) "integrating the first and second device-captured data…" (13[c])

This step is identical to the function recited in 1**[c][3]**, and is rendered obvious for the same reasons. (EX1002, ¶¶147, 127-133.)

10. Claim 14: "The method of claim 13 further comprising: receiving in the web-based shared information channel a message…"

Claim 14 is substantially similar to claim 8, except that it depends from claim

13 instead of claim 1. As explained for claim 8, the club photo sharing feature allows the first and second users to enter "**a message**" using the web browsers in their mobile devices, which would have been received and delivered to other users (for example, by viewing the photo album with accompanying textual messages as shown in Neibauer Figure 21-10) via their mobile devices. Each message is thus integrated with its respective photo, as recited in the claim and fully described for claim 8. (EX1002, ¶¶148, 141.)

11. Independent claim 17

Independent claim 17 is substantially similar to claim 1 except that it recites "[**a**] **non-transitory computer-readable storage medium having embodied therein executable code of one or more software programs, wherein said executable program code when executed by a processing element causes said processing element**," to perform the same functions as claim 1. As explained for limitation 1**[a]**, the proposed combination discloses and renders obvious "**a processing element**" as claimed. (EX1002, ¶¶149, 109-111.)

It would also have been obvious that the functionalities from Neibauer, Cheng, and Ausems relied upon for claim 1 would have been carried out and implemented by software comprising code that is executed by the processing element and stored in the at least one "**non-transitory computer-readable storage medium**," such as a hard disk drive. (EX1002, ¶150; 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).)

12. Claim 18

Claim 18 is substantially similar to claim 8, and identical claim 14 except for claim dependencies. Claim 18 is obvious for the reasons previously presented.

D. Ground 2: Claims 4-5 Are Obvious Over Neibauer In View Of Ausems and Cheng, in Further View of Squibbs.

These dependent claims, which generally relate to obtaining and using location information, would have been obvious over the prior art for Ground 1, in further view of Squibbs (**EX1011**). Squibbs describes a technique of recording and displaying data (such as photos) along with the location where the photo was taken.

Squibbs explains that digital cameras that included Global Positioning System (GPS) receivers were known in the art, as were systems that could display the location where the photo was taken on an electronic map. (Squibbs, ¶¶0003-0004.) Squibbs discloses a photo album system that allows a user to record digital images, which can be associated with the location where they were taken.

An overview of the system is shown in Figure 3:

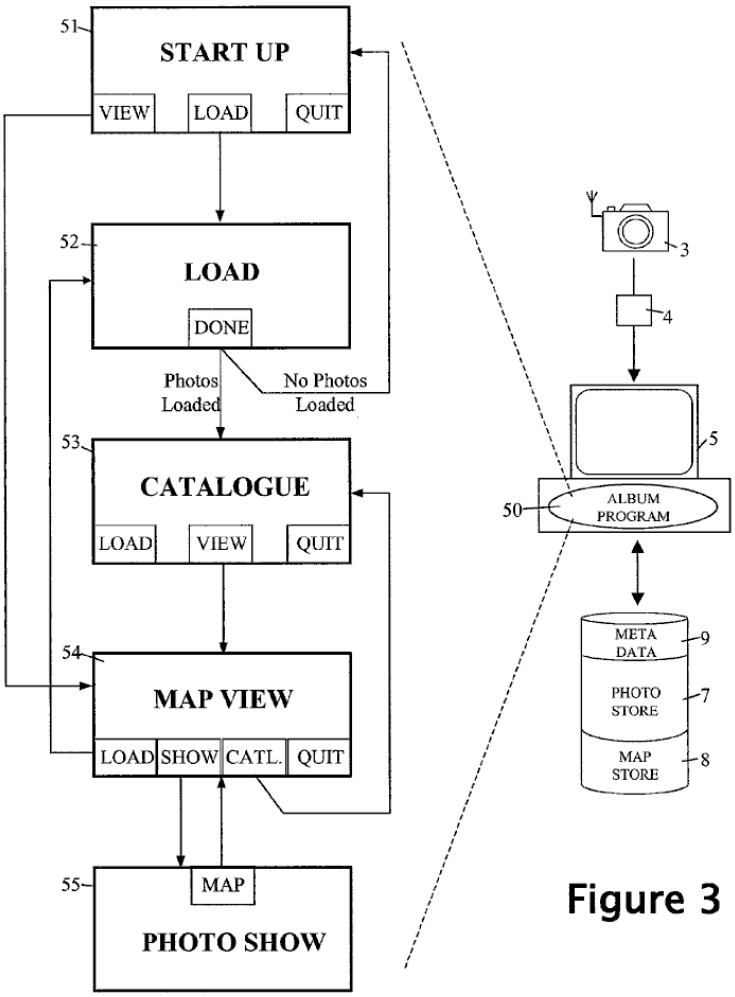


Figure 3

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

> FIG. 3 depicts a photo system in which a digital camera **3** provided with location determining means (such as a GPS receiver) is used to generate digital photos **4**, each photo (also referred to as 'image data') **4** being stamped with location data indicating where the photo was taken… The photos and their meta data are downloaded by any suitable means (USB connection, removable storage device, etc) into a PC **5** where an album program **50** serves to store the photos in a photo store **7** and the photo meta data in a meta-data database **9**… The album program also has access to a map store **8**. The stores **7** and **8** and the meta-data

database can be on the PC or external.

(Squibbs, ¶0031.)

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

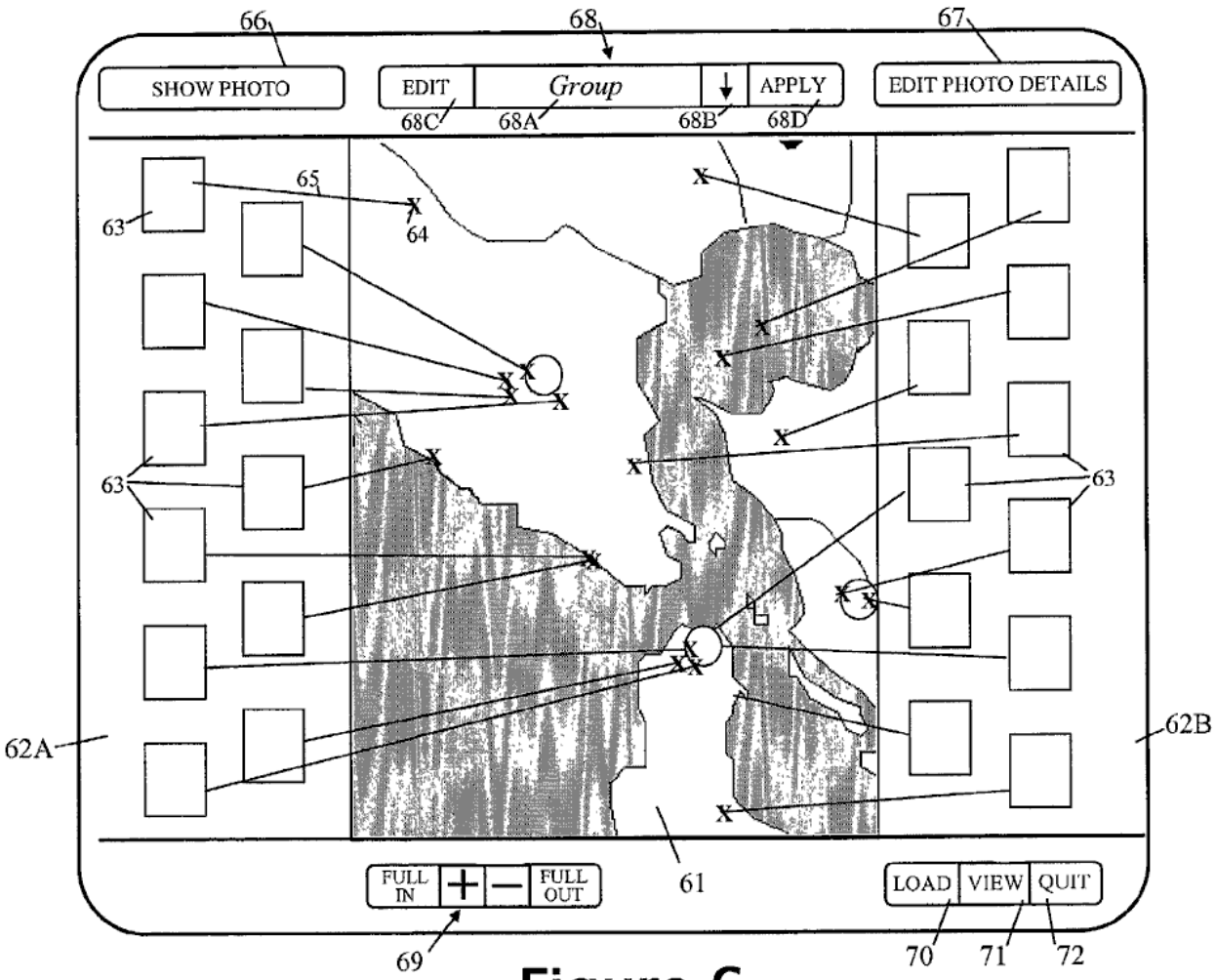


Figure 6

(Squibbs, Fig. 6.)

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

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

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

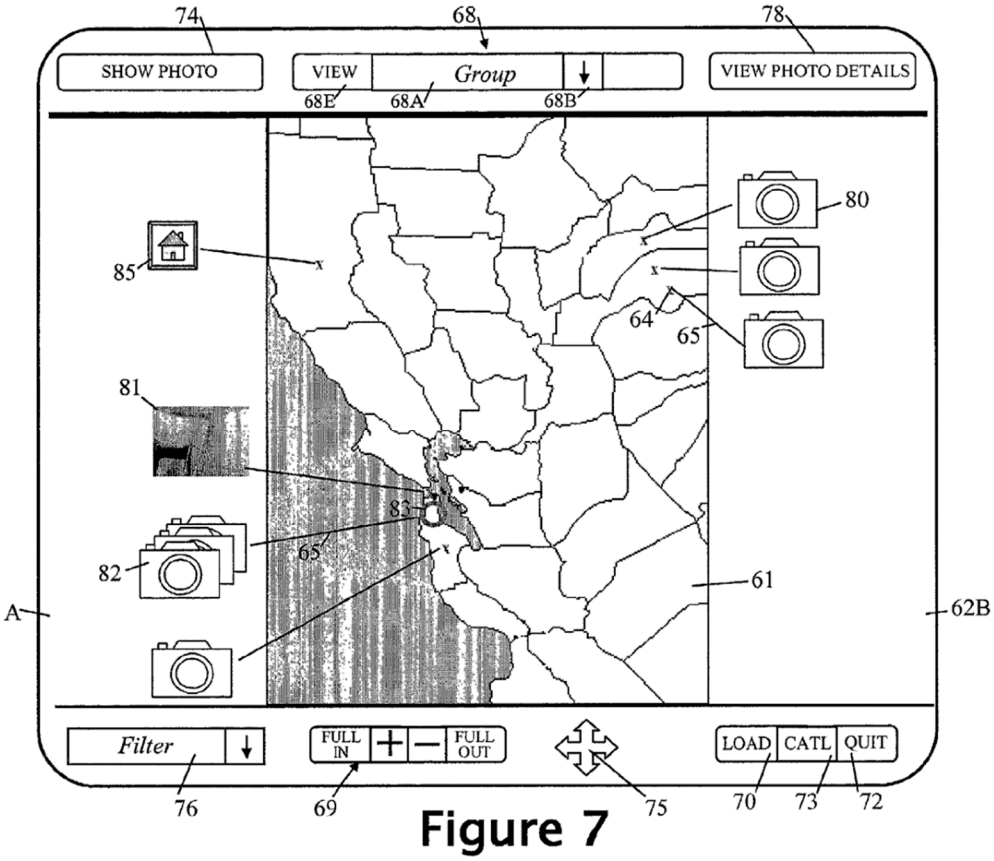


Figure 7

(Squibbs, Fig. 7.)

The Map View mode in Figure 7 allows a user to browse the album after it has finished editing the photo metadata and assigning the photos to groups. (Squibbs, ¶0074.) Squibbs explains that "[t]he starting map displayed in the Map View Mode is, for example, a world map or a map encompassing the locations of all

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

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

Rationale and Motivation to Combine (Ground 1 Prior Art with Squibbs): It would have been obvious to combine the prior art for Ground 1 with Squibbs,

predictably resulting in the club photo sharing feature further adapted such that the mobile device transmits not just the photo being uploaded, but geographic location information where the photo was captured. (EX1002, ¶161.)

For claim 4, therefore, the device-captured data of claim 1 would have included, in addition to the photo being uploaded, "**device-captured location coordinates**." (Squibbs, Fig. 4 (showing "LOCATION COORD" field for photo), ¶0049 (referring to "the coordinates provided by the location data").)[3] For claim 5, the device-captured data would for the same reasons have included "**at least one of device-captured image data… associated with a capture location-identifying information**." Although not required by claims 4-5, it would also have been obvious to adapt the club photo sharing feature to display location information associated with photos uploaded by club members, for example, via a map-based user interface similar to the one described in Figures 6-7 of Squibbs discussed above. (EX1002, ¶161.) Under the proposed combination, therefore, the club photo sharing feature would have been further adapted to display location information (for example on an electronic map), in association with the photos. This would also have

[3] Squibbs discloses an embodiment of a digital camera that is separate from the cellular phone used to upload photo image and location data. (Squibbs, Fig. 11, ¶0101.) The ability to incorporate digital cameras into mobile devices with GPS capabilities was known and described in Ausems. (EX1002, ¶161 n.4.)

been seen as a natural extension of map features already disclosed in Neibauer, as discussed below. (EX1004, ¶163.) Squibbs is an analogous reference in the same field as the '348 patent and would have been reasonably pertinent to problems facing the patent inventors, including how to obtain location information and incorporate it into a mobile information channel. (EX1002, ¶162.)

An ordinarily skilled artisan would have been motivated to combine in order to improve the user experience of club members who use the photo sharing feature. (EX1002, ¶163.) The ability to associate a location with a digital photo would have provided a clear benefit by improving the classification and enjoyment of uploaded photos. Squibbs explains that classification of photos "has long been a problem due to the effort involved in maintaining any organisation of the photos." (Squibbs, ¶0002.) Geographic location would have provided a clear way to classify digital photos, allowing club members to better understand the context behind the photo and identify objects in the photo. (EX1002, ¶163.)

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

functionality in Squibbs, and in any case, the fact that Neibauer already discloses the ability to display electronic maps – and suggests annotating those maps to show location of objects and events within the map – confirms that Neibauer and Squibbs are naturally combinable and that a skilled artisan would have been motivated to do so. (EX1002, ¶163.) A skilled artisan would also have had a reasonable expectation of success, as Squibbs relies on existing technologies and could have been implemented using conventional techniques. (EX1002, ¶164.)

E. Ground 3: Claims 10-11, 15-16, 19-20 Are Obvious Over Neibauer In View Of Ausems and Cheng, in Further View of McElfresh.

Dependent claims 10-11, 15-16, and 19-20 are substantially similar, with the only material differences being their claim dependencies. Claims 10, 15, and 19 recite the ability to identify and periodically obtain data from "**at least one data feed**," which is integrated into "**a given set of shared information content of the web-based shared information channel**," accessible to the first sand second users via their respective mobile devices and personalized content applications. Dependent claims 11, 16, and 20 further state that the "**data obtained from the given identified data feed comprises at least one advertisement**." These claims are obvious over the prior art for Ground 1 in view of McElfresh (**EX1014**).

McElfresh describes a technique for integrating advertisements into a webpage. Figure 1 shows a prior art technique for arranging ads:

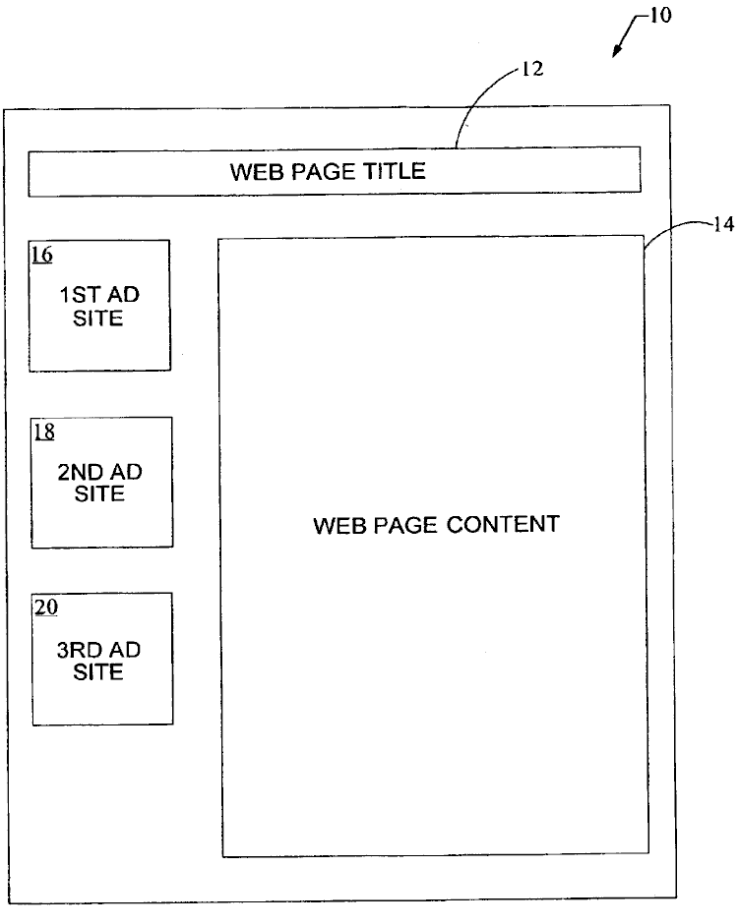


Fig. 1
(Prior Art)

(McElfresh, Fig. 1.) Figure 1 shows "a generalized block diagram layout of a prior art webpage **10**. This page contains a web page title block **12**, and a web page content block **14**. A sequence of ad sites **16-20** are shown which receive and display ads configured to fit in these spots." (McElfresh, 5:19-31.) McElfresh explains that ads in the prior art were typically placed on the page based on advertisers' preferred page location, or randomly. (McElfresh, 5:33-38.)

McElfresh purports to disclose an improved technique in which a website can

issue a request for ads for inclusion on a webpage, and the ads provided will be selected and ranked in a way that increases the likelihood of click-throughs and maximizes advertising revenue. (McElfresh, 5:20-28.) Figure 3A shows a block diagram of the system or network **100** for optimizing ad placement:

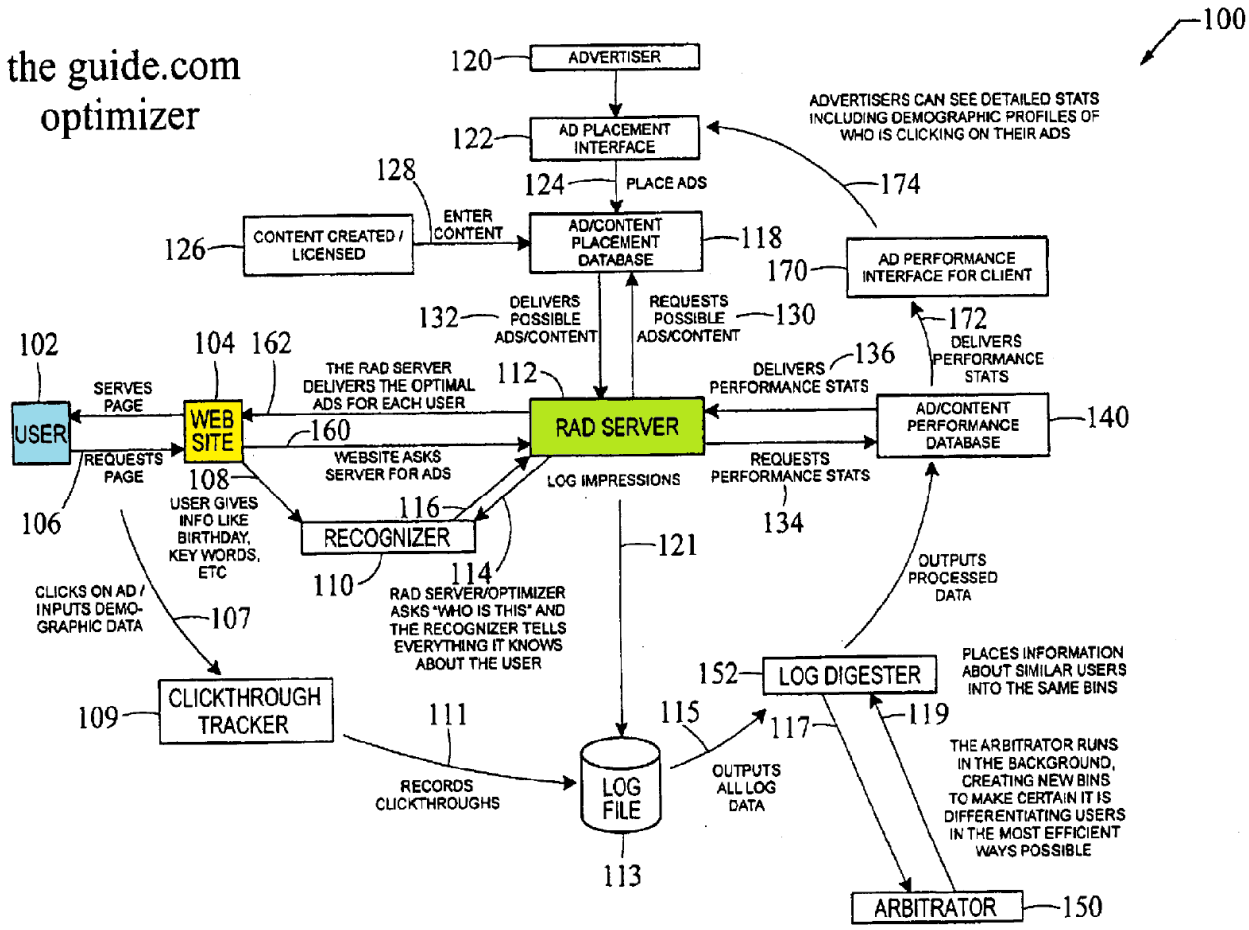


Fig. 3A

(McElfresh, Fig. 3(a) (highlighting added), 6:15-18.) Although Figure 3A above shows a number of components, the most relevant aspects for our purposes are Rad Server **112**, website **104**, and user **102**.

McElfresh explains that "when a site wants to show a page, it contacts an ad server component **112**, shown at the center of the network **100** in FIG.3(a). This device might also be referred to as a relational server component, and is hence referred to as the Rad Server." (McElfresh, 6:36-40.) Figure 3(a) also discloses "an ad/content placement database **118**… for storing a plurality of ads, which might be used for possible display." (McElfresh, 6:57-60.) The ad server or Rad Server **112** "performs the overall function of gathering the necessary information regarding a particular ad (or set of ads) and the particular user and generating a set of ads which have been optimized for placement on a webpage," based on (among other things) calculated click-through-percentage rates. (McElfresh, 6:42-48.)

After the ads have been selected, "the Rad Server **112** delivers a set of ads for display to the user which have been optimized for increased click-throughs, and/or increased revenue generation for the webpage provider." (McElfresh, 8:10-14.) In another embodiment, "[i]f an advertiser wishes to purchase the right to an entire section of the website or webpage, the ads can simply be placed there without having to compete their way into that position on the page." (McElfresh, 12:50-54.)

Rationale and Motivation to Combine (Ground 1 Prior Art with McElfresh): It would have been obvious to combine the prior art for Ground 1 with McElfresh, predictably resulting in the further ability to integrate a number of ads onto the webpage of the club photo sharing feature. (EX1002, ¶171.)

For example, claim 10, 15 and 19 recite the steps or functions of identifying "**at least one data feed**," and periodically obtaining data "**from a given such identified data feed**." Under the proposed combination, the "**data feed**" would have corresponded to a feed containing a plurality of advertisements that would have been available for display on the club photo sharing feature, obtained by from Rad Server **112** as described in McElfresh. More specifically, the web server providing the club photo sharing feature described in Neibauer ("**web-based shared information channel**") would have periodically obtained ad data from this feed, for example, when webpages of the club sharing photo sharing feature are being prepared for delivery to a user. (McElfresh, 6:36-48, 8:9-10 ("Referring again to FIG. 3(a), the website **104** requests ads from the Rad Server **112** as shown by dataflow **160**.").)

The '348 patent does not define "**data feed**," and the term does not appear in the written description. The term "**feed**" appears only in one sentence referring to RSS and XML feeds. ('348, 9:52-55.) In the pending litigation, Patent Owner argues that "**data feed**" is not limited to XML or RSS feeds and simply means a "*provision of information*," to the extent a construction is required. (EX1025, at 3.) McElfresh satisfies this construction by providing advertising information.

Petitioner, for its part, has argued in the pending litigation that "**data feed**" should be limited to the two examples in the written description, *i.e.*, an XML or

RSS feed. (*Id.*) The claimed data feed would be obvious even if it were limited in this fashion, because it would have been obvious to provide the advertisements from Rad Server **112** of McElfresh to the website in XML format, which was a well-known industry standard for exchange of information between computers in web-based systems. (EX1002, ¶¶174-175.) An ordinarily skilled artisan would have been motivated to use XML to take advantage of a growing and popular XML industry standard which was specifically designed for electronic data interchange between various systems. (EX1002, ¶175.)

Claims 10, 15, and 19 further state that the information obtained from the data feed is integrated "**with the first and second device-captured data into a persistent version of a given set of shared information content of the web-based shared information channel so as to be accessible with the first and second device-captured data to the first and second users of the respective first and second mobile devices via the respective personalized content applications of the first and second mobile devices**." This would have occurred, under the proposed combination, by integrating the received advertisements into the webpages for the club photo sharing feature, for example, by showing the ads on the photo album webpages in Neibauer, which would have been accessible to club members via their mobile devices. (EX1002, ¶176.)

For example, as explained for claim 1, the first and second device-captured

data is integrated into a photo album as shown in the photo album view shown in Figure 21-10 of Neibauer:

The James Bond Movie Series Category: James Bond Serie
The James Bond place to talk about the movies. Club Type: Liste

Blueraja's BOND GIRL Album Back To: Album List

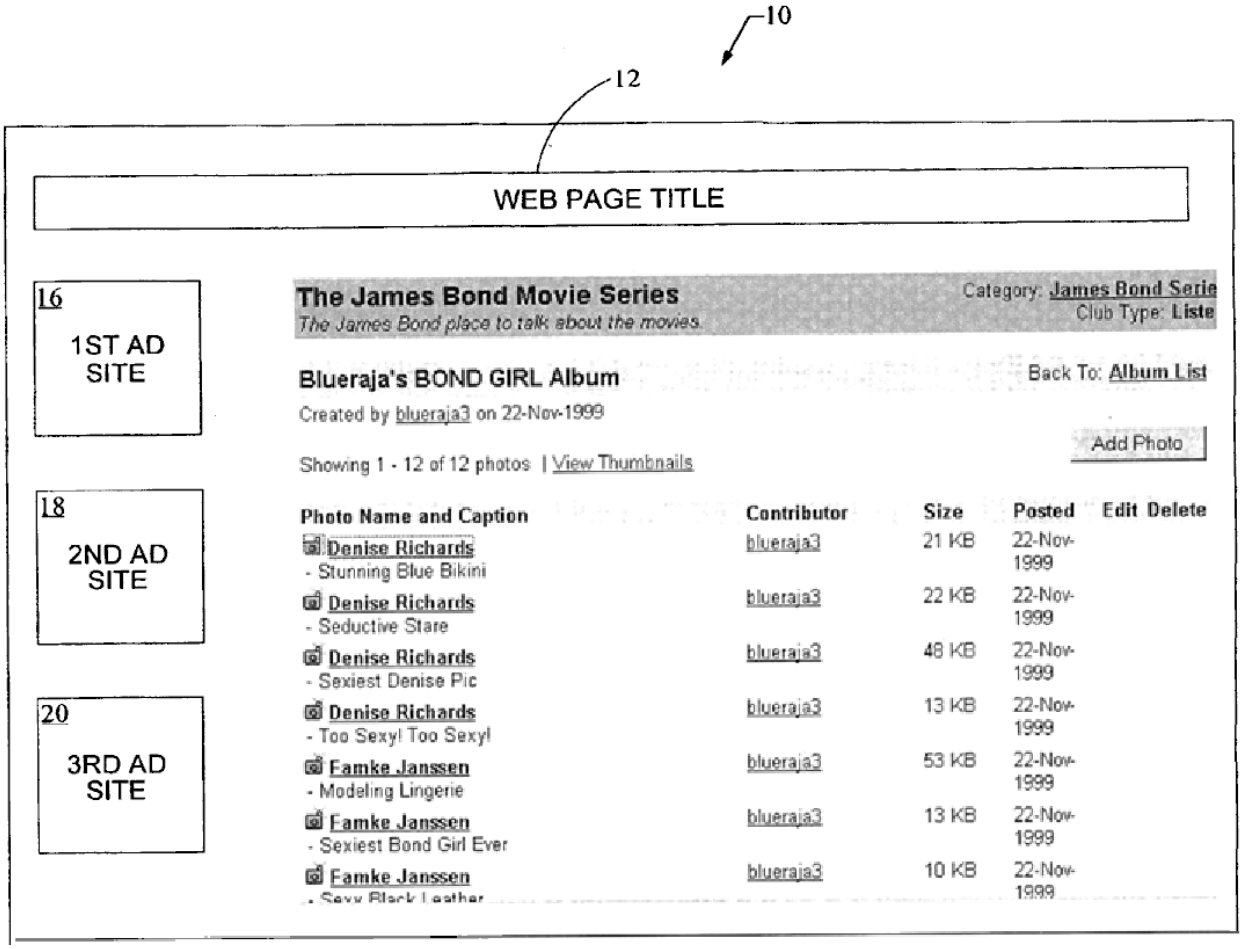
Created by blueraja3 on 22-Nov-1999

Showing 1 - 12 of 12 photos | View Thumbnails Add Photo

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

FIGURE 21-10 Club photo album

(Neibauer, p.478, Fig. 21-10.) Figure 21-10 as noted above shows a partial list of photographs stored in an album. Under the proposed combination, the information on this webpage would have been integrated with advertisements obtained from the claimed "**data feed**" under the combination with McElfresh. Petitioner's expert created the following mock-up, based on the combination of Figure 1 of McElfresh and Figure 21-10 of Neibauer to illustrate one exemplary and obvious user interface in which this combination would have been implemented:



(EX1002, ¶177.) This hypothetical is entirely consistent with Neibauer, which for its part shows an exemplary club page with an advertisement placed on it:

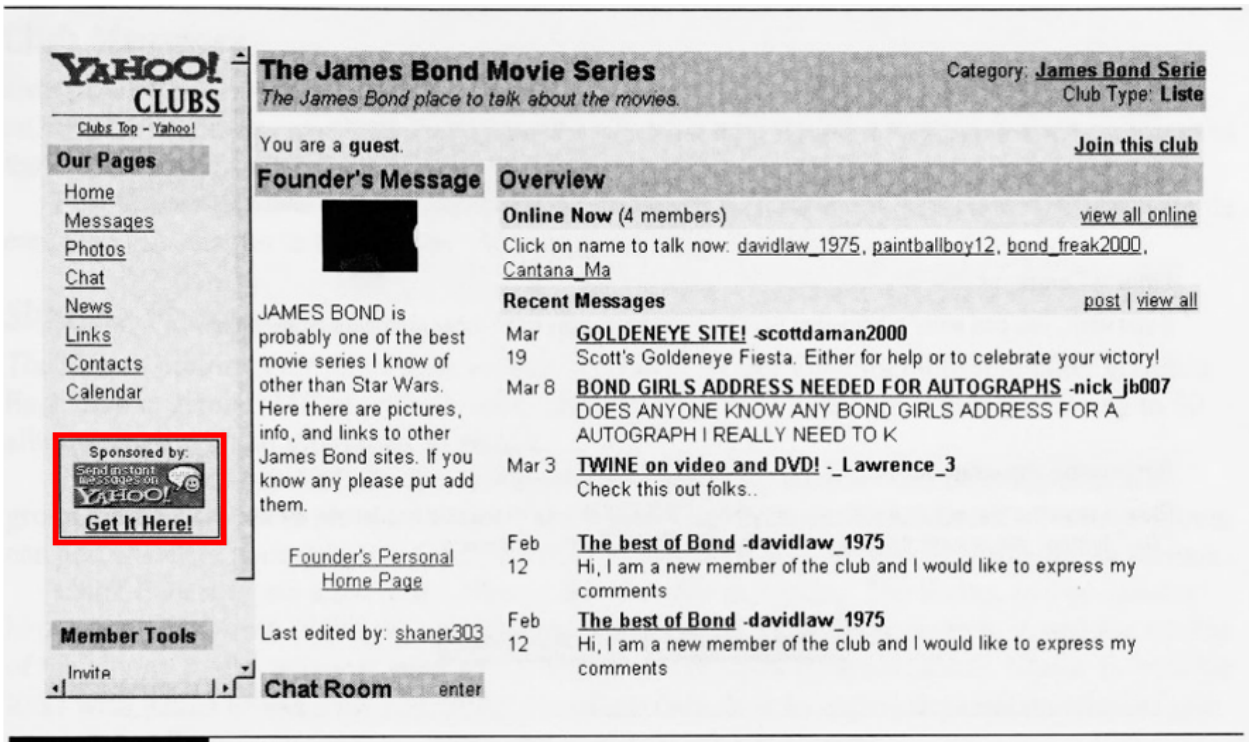


FIGURE 21-8 Club page

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

Under the proposed combination, therefore, advertisement information obtained from the "**data feed**" would have been integrated "**with the first and second device-captured data**," *i.e.*, the photo data provided by the first and second users as explained in claim 1, "**into a persistent version of a given set of shared information content of the web-based shared information channel**," *i.e.*, a persistent set of data that includes the photo data for the photo album provided by the users and the obtained advertisements, which would have been accessible to and shared with club members. (EX1002, ¶179.) It would also have been obvious for this set of shared information to be "**persistent**," as McElfresh discloses that its

dynamic advertising algorithms can be overridden such that an advertiser can simply "purchase the right to an entire section of the website or webpage," such that "the ads can simply be placed there without having to compete their way into that position on the page." (McElfresh, 12:50-54.) This would have allowed, for example, a set of advertisements to be placed consistently on a particular page, such as the photo sharing page in Neibauer. It therefore would have been obvious that the ads, along with the photo data for the photo album, would have been persistent and accessible to both the first and second users through their respective mobile devices and personalized content applications, under the proposed combination. And finally, claims 11, 16, and 20 recite that "**the data obtained from the given identified data feed comprises at least one advertisement**," which would have been the case as described above. (EX1002, ¶179.)

McElfresh is an analogous reference in the same field as the '348 patent of network-based communication systems, that discloses similar functionality for managing information content accessible through the Internet. (EX1002, ¶180.) McElfresh would also have been reasonably pertinent to problems facing the inventors including how to incorporate advertisements. (*Id.*)

An ordinarily skilled artisan would have been motivated to combine in order to earn increased revenue. (EX1002, ¶181.) As noted above, Neibauer itself discloses the ability to place advertisements on club pages. (Neibauer, p.475, Fig.

21-8.) The techniques of McElfresh would have provided a clear improvement to Neibauer by allowing the photo sharing webpage to display multiple advertisements on a single page, from multiple advertisers, further increasing the potential revenue obtainable by the displaying website. (EX1002, ¶181.) As McElfresh explains, "the generation of revenue from a website is proving to be increasingly important, as there are costs inherent in creating, providing, and maintaining a website." (McElfresh, 1:30-34.) "Moreover, as Internet traffic continues to increase, the opportunities for the generation of revenue in association with those contacted sites tends to increase." (McElfresh, 1:34-36.) Under the combination with McElfresh, the proposed combinate would have beneficially been enabled to deliver more advertisements per page, thus resulting in greater revenue generation for the website operator. (EX1002, ¶181.) An ordinarily skilled artisan would also have had a reasonable expectation of success, as the techniques of McElfresh involved nothing more than basic web and network communications techniques. (EX1002, ¶182.)

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 "**web-based shared information channel**" proposed in the litigation. In the event the Board finds it unnecessary to construe this term, these grounds need not be further considered.

As explained for Ground 1, limitation 1**[c]**, Petitioner has argued in the pending

litigation that this term should be construed as "*a virtual location at the content management site at which user-authored content may be added for transmission to the mobile web site*." (EX1025, at 1-2.) The key feature of this construction, for purposes of Grounds 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 obvious over Neibauer, this would have been obvious in further view of Harvey. With respect to all other claim limitations in the challenged claims, the analysis from Grounds 4-6 applies here.

Harvey discloses techniques for allowing users to create on-line communities in which users can communicate and share information, which are similar to the web-based clubs disclosed in Neibauer. (Harvey, 4:24-43.) The key feature of Harvey here is the ability of a community creator to author content for a community <u>before</u> the community is created and launched. As noted, Harvey explains that "[t]he

community creating module permits the creator to create a community, and designate applications and content presented in the community by a user interface." (Harvey, 4:28-30.) More specifically, a user can access a creating module **165** in order to create a new community, which may include web-based community creation. (Harvey, 7:49-56, 8:49-50.) "At step **202**, a creator provides community identification information," such as a community name. (Harvey, 7:58-61.) "At step **210**," Harvey explains, "a configuration editor is presented to a creator. A configuration editor may allow a user to build a community, designate content and application objects, subscribe to subscription objects, and add other information associated with the community." (Harvey, 8:63-67; *see also id.*, 9:41-47.) Later, "[a]t step **230**, a creator may launch a community." (Harvey, 12:67-13:1.) Harvey therefore discloses the ability to add content to a community using the community-creation tool, before the community is created. A user can establish a connection with a community, among other ways, "through browser access to an appropriate website." (Harvey, 29:59-62.)

Rationale and Motivation to Combine (with Harvey): It would have been obvious to combine the prior art cited for Grounds 1-3 with Harvey, predictably resulting in 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 "**web-based shared**

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 a web-based interface for allowing the founder to create and manage a club disclosed in Neibauer, which would have further permitted the club founder to add content for the club via the mobile information channels, such as initial club messages, initial photos with textual descriptions, and so forth. This information would have been made available for transmission to "*the mobile website*," *i.e.*, the club site as delivered to mobile users. (EX1002, ¶¶186-187.) Harvey is an analogous reference and would have been reasonably pertinent to problems facing the inventors. (EX1002, ¶188.)

A skilled artisan would have been motivated to combine in order to provide club founders with greater customizability for clubs by allowing them to use the club-creation interface to populate mobile information channels with initial content, *before* the club is made available to other members. (EX1002, ¶189.) This would have allowed the club founder to ensure that other club members would not experience a "blank" club devoid of content, because the club founder would have populated mobile information channels (such as the club message board) with some initial content, thus providing a more engaging club experience for other members, featuring content available from the moment of the club's creation. (*Id.*) A skilled

artisan would also have had a reasonable expectation of success and could have implemented the combination using conventional techniques. (EX1002, ¶190.)

VII. CONCLUSION

Petitioner respectfully requests IPR institution.

Dated: December 6, 2023

Respectfully submitted,

COOLEY LLP
ATTN: Patent Group
1299 Pennsylvania Avenue NW
Suite 700
Washington, DC 20004
Tel: (650) 843-5001
Fax: (650) 849-7400

By: */ Heidi L. Keefe /*
Heidi L. Keefe
Reg. No. 40,673
Counsel for Petitioner

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 12,757 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

COOLEY LLP
ATTN: Patent Docketing
1299 Pennsylvania Avenue NW
Suite 700
Washington, D.C. 20004
Tel: (650) 843-5001
Fax: (650) 849-7400

/ Heidi L. Keefe /
Heidi L. Keefe
Reg. No. 40,673

CERTIFICATE OF SERVICE

I hereby certify, pursuant to 37 C.F.R. Sections 42.6 and 42.105, that a complete copy of the attached **PETITION FOR INTER PARTES REVIEW OF U.S. PATENT NO. 9,922,348 B2,** including all exhibits (**Nos. 1001-1003, 1005-1006, 1010-1014, 1018-1022, 1024-1027**) and related documents, are being served via Federal Express on the 6th day of December, 2023, the same day as the filing of the above-identified document in the United States Patent and Trademark Office/Patent Trial and Appeal Board, upon Patent Owner by serving the correspondence address of record with the USPTO as follows:

31825 - RYAN, MASON & LEWIS, LLP
48 South Service Road
Suite 100
Melville, NY 11747
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:

Erick S. Robinson
Texas Bar No. 24039142
Spencer Fane LLP
3040 Post Oak Boulevard, Suite 1300
Houston, TX 77056
Telephone: (713) 212-2638
Mobile: (713) 498-6047
Fax: (713) 963-0859
erobinson@spencerfane.com

DATED: December 6, 2023

/ Heidi L. Keefe /
Heidi L. Keefe
Reg. No. 40,673
COOLEY LLP
1299 Pennsylvania Ave. NW, Suite 700
Washington, D.C. 20004
Tel: (650) 843-5001