

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

SAMSUNG ELECTRONICS CO. LTD. and SAMSUNG ELECTRONICS
AMERICA, INC.,

Petitioners

v.

MOBILE DATA TECHNOLOGIES LLC,

Patent Owner

IPR2025-00535
U.S. Patent No. 9,032,039

**DECLARATION OF MAHDI ESLAMIMEHR, PH.D. IN SUPPORT OF
PATENT OWNER'S PRELIMINARY RESPONSE**

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I, Mahdi Eslamimehr, declare as follows:

I. INTRODUCTION

1. I have been retained by Mobile Data Technologies, Inc. (“MDT”) as an independent expert consultant in petition for the *Inter Partes* Review (“IPR” or “Petition”) involving U.S. Patent No. 9,032,039 (“the ‘039 Patent”) presently assigned to MDT. I have been asked to consider the arguments raised by the Petition regarding the validity of the ‘039 Patent. In particular, I have been retained as an expert in computer science to provide analysis and opinions related to whether certain claims of the ‘039 Patent are rendered obvious by prior art asserted by Petitioners (Samsung Electronics Co. Ltd. and Samsung Electronics America, Inc.). I understand that Petitioners have asserted that claims 1-4, 8, 9, 13-15, 17-20, 22-25, and 28-30 (the “Challenged Claims”) are rendered obvious under 35 U.S.C. §103 by the combination of Neibauer, Cheng, Squibbs, and Ausems as well as the combination of Neibauer, Cheng, Squibbs, Ausems, and Harvey.

2. I submit this Declaration as a statement of the opinions I have formed and the factual basis for the opinions. I understand that this Declaration is submitted in regard to IPR2025-00535. I am prepared to testify as to the matters discussed herein.

3. I am over 18 years of age. I have personal knowledge of the facts stated in this Declaration and could testify competently to them if asked to do so.

4. My current employer, Quandary Peak Research, is paid a consulting fee for my time working on this matter. I have no personal interest in this matter, and my compensation does not depend in any way on the opinions I express or the outcome.

II. QUALIFICATIONS

5. My current employer, Quandary Peak Research, is paid a consulting fee for my time working on this matter. I have no personal interest in this matter, and my compensation does not depend in any way on the opinions I express or the outcome.

6. I, Mahdi Eslamimehr, hold a Ph.D. in Computer Science from the University of California, Los Angeles (UCLA), complemented by an M.S. in Computer Science from Linköping University, Sweden, and an MBA from the London School of Economics and Political Science. Currently, I serve as Executive Vice President at Quandary Peak Research, overseeing Intellectual Property (IP) evaluations and Mergers & Acquisitions (M&A) transactions. Additionally, I am a Professor at the University of Southern California, Department of Computer Science, where I exclusively teach advanced-level courses to Master's and Ph.D. students, specifically Advanced Software Engineering and Software Economics.

7. My professional expertise closely aligns with the technological domains central to regarding mobile computing, wireless communications, network

integration, and complex software architectures. My executive role at Quandary Peak involves in-depth evaluation and strategic consulting on complex IP and M&A matters, frequently involving software patents related to mobile technologies, network functionalities, and integrated application channels similar to those described in the patent at issue.

8. In my academic role at the University of Southern California, I teach and mentor graduate students on advanced software engineering principles, including the design, implementation, and evaluation of complex software systems and their economic impacts. My research and teaching focus extensively on software system integration, concurrency, software reliability, and performance analysis, key technical areas directly applicable to the integration of mobile device functionalities with networked application-based information channels highlighted in the multi-domain solution technologies.

9. My industry experience, notably as Chief Technology and Operating Officer at Clarity Global and through senior research roles at Samsung Electronics R&D Center and Ericsson AB, provided direct involvement in developing and managing software solutions for resource-constrained, network-centric mobile environments. These roles required extensive knowledge of telecommunications protocols, mobile device integration, and distributed software architectures, closely paralleling the technical focus of the patent.

10. Furthermore, my scholarly contributions, including numerous peer-reviewed publications and conference presentations, emphasize advanced software testing, reliability engineering, concurrency analysis, and software economic valuation, thereby underscoring my deep theoretical and practical expertise relevant to assessing complex technological innovations.

III. SUMMARY OF OPINIONS

11. It is my opinion that the challenged claims are not invalid and that the Petition in this proceeding has not established they are invalid. The combinations of references proposed in the Petition, specifically Neibauer + Cheng + Squibbs + Ausems + Harvey, do not disclose each limitation of the Challenged Claims, and a person of ordinary skill in the art at the time of the invention (the “skilled artisan”) would not have combined the references in the manner suggested in the Petition. On the contrary, a skilled artisan would not have been motivated to combine the references, as explained in more detail below. Furthermore, even assuming a skilled artisan had been motivated to combine the references in the manner suggested, the resulting combination(s) would not have met the claim language.

12. Petitioners have created combinations that are the result of hindsight—the result of using the challenged patents as a roadmap to select various portions of prior art references and attempting to combine them without a sufficient reason outside the challenged patents for doing so.

13. In forming my opinions in this Declaration, I have considered:
- a. U.S. Patent No. 9,032,039 and its file / prosecution history before the U.S. Patent and Trademark Office;
 - b. Petitioners' Petition for Inter Partes Review and attached exhibits;
 - c. the Declaration of Henry Houh, Ph.D. submitted as EX1002 in the Petition proceeding;
 - d. references cited therein in support of the Petition; and
 - e. my education, training, and experience in the field.

IV. LEGAL PRINCIPLES

A. Claim Construction

14. I understand that the claims of a patent are read in light of the specification of the patent as understood by a person of ordinary skill in the art at the time of the invention (a "skilled artisan"). I understand that "the time of the invention" refers to the effective filing date of the patent in question. For purposes of my analysis, I am considering the effective filing date to be June 18, 2002, the filing date of the original provisional application 60/389,430 to which the '039 Patent claims priority, but my opinions in this Declaration would not change if any claim of the '039 Patent is not entitled to claim priority to the provisional application. I reserve the right to opine further on the question of priority if it later becomes relevant.

15. I understand that claim terms are given their ordinary and customary meaning as would be understood by a skilled artisan in the context of the entire disclosure. A claim term, however, will not receive its ordinary meaning if the patentee acted as its own lexicographer and clearly set forth a definition of the claim term in the specification. In this case, a claim term will receive the definition set forth in the patent.

16. I understand that evidence that is intrinsic to the patent and prosecution history is given more weight than extrinsic evidence. For example, if there are specific statements in the specification that define the invention, those statements are strong evidence of a definition for a term.

17. In this Declaration, unless otherwise stated, I have used what I believe to be the ordinary and customary meanings for the terms used in the claims in the context of the challenged patent.

B. My Understanding of Obviousness

18. I understand that a patent claim is invalid if the claims would have been obvious to a skilled artisan at the time of invention (which, as stated above, I am presently treating as June 18, 2002 since I understand that date is currently not in dispute). I understand that the obviousness inquiry should not be done with hindsight, but from the perspective of a skilled artisan without knowledge of the teachings of the challenged patent.

19. I understand that a claim is obvious when the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious to a skilled artisan at the time the invention was made. That is, I understand that one does not evaluate the “obviousness” of individual claim elements, but rather must compare the claimed subject matter as a whole to the prior art.

20. I understand that obviousness can be established by combining multiple prior art references to meet each and every claim element, but I also understand that when making a proposed combination of references, care must be taken to avoid hindsight bias. That is, I am informed by counsel that the determination of obviousness cannot be based on the hindsight combination of components selectively culled from the prior art to fit the parameters of the patented invention, effectively using the claims as a roadmap.

21. I understand that, to support a conclusion of obviousness, there must be an apparent reason for a skilled artisan to combine or modify the prior art references as recited in the claims.

22. As part of this inquiry, I have been asked to consider the level of ordinary skill in the field that someone would have had at the time the claimed invention was made. In determining the level of ordinary skill, I considered the following: (1) the levels of education and experience of persons working in the field;

(2) the types of problems encountered in the field; and (3) the sophistication of the technology.

C. Relevant Level of Ordinary Skill in the Art

23. I have been asked to consider the level of ordinary skill in the art that a skilled artisan would have had as of June 2002. It is my opinion that a person of ordinary skill in the art (whom I refer to as a “POSITA”) would have been a person with a bachelor’s degree in information systems, electrical engineering, computer engineering, or computer science, as well as two or more years of relevant industry experience, which would include experience in handheld wireless devices and web site design. More academic experience would compensate for less industry experience and more industry experience would compensate for less academic experience.

24. In 2002 timeframe, my work included work with mobile devices and the Symbian operating system. Furthermore, based on my review of the materials in this matter, as well as from my post-graduate educational background and years of professional experience, I am familiar with the level of ordinary skill in the art as of 2002.

V. THE CHALLENGED PATENT

A. Specification

25. The '039 Patent describes a method that enables a mobile device user to transfer content from the mobile device to a server for insertion into a previously established application-based information channel so that the mobile device user can interact with one or more additional users. The '039 Patent describes in col. 10, lines 8-28:

The content management site in the illustrative embodiment is designed to generate and otherwise manage dynamic, time-sensitive, task- oriented mobile sites, including wireless collaborative workspaces and communities. The content management site allows content such as data, media, multimedia, messages, news, features, events, polls, competitions and advertising to be rapidly created, entered into the system, and then subsequently syndicated, distributed, shared, collaborated with or acted upon by users of mobile devices.

By utilizing the content management site, system users can create one or more personal or business mobile sites with various sets of features, and then share such sites via the mobile Internet or other wireless network with friends, family, colleagues, or other groups of any type. The content management site makes it simple for unsophisticated users to upload, enter, create, syndicate, distribute or otherwise manage content that is important to them, in a manner that allows such content to be accessed, shared, and acted upon from a mobile device.

26. The invention also transfers information associated with at least one wireless networking functionality of the mobile device from the mobile device to the server. The '039 Patent indicates in col. 5, lines 51-65:

Examples of such information include information specifying at least one messaging action implementable over the wireless network, information specifying at least one collaboration action implementable over the wireless network, and information specifying at least one location-based service action implementable over the wireless network. Other types of information associated with wireless networking functionalities may also or alternatively be used.

27. The content and the information associated with the at least one wireless networking functionality of the mobile device is integrated into the previously established application-based information channel. This element is described in col. 5, lines 51-65 and col. 10, lines 8-28 of the '039 Patent, which are set forth above.

28. The invention also enables other content from at least one of the additional users to be inserted into the previously established application-based information channel. For example, the '039 Patent indicates in col. 18, lines 16-22:

Furthermore, the invention allows users to more efficiently communicate, collaborate and otherwise interact with their friends or colleagues instantly and seamlessly within a single system that provides a mobile web site integrating existing wireless networking functionalities, such as IM, SMS, MMS, location-based services, or email, with personally authored content.

B. Representative Claims

29. The challenged claims 1-4, 8-9, 13-15, 17-25 and 28-30 include independent claims 1, 17, 18, 19, 22, and 23.

30. Independent Claim 1 of the '039 patent recites:

1. A method comprising:
capturing content at a mobile device;
identifying a previously established application-based information channel into which the captured content is to be inserted, the identified application-based information channel permitting interaction between a user of the mobile device and one or more additional users;
determining information associated with at least one wireless networking functionality of the mobile device;
providing the captured content from the mobile device to at least one server for insertion in association with the determined information into the identified application-based information channel; and
receiving other content, at the mobile device via the identified application-based information channel, from at least one of the additional users.

31. Independent Claim 17 of the '039 patent recites:

17. A non-transitory computer-readable storage medium having embodied therein executable code of one or more software programs, wherein said executable program code when executed by a processing element of the mobile device causes the mobile device to perform the method of claim 1.

32. Independent Claim 18 of the '039 patent recites:

18. A mobile device comprising:

at least one processing element comprising a processor coupled to a memory; and
at least one network interface;
said at least one processing element being configured to:
capture content at the mobile device;
identify a previously established application-based information channel into which the captured content is to be inserted, the identified application-based information channel permitting interaction between a user of the mobile device and one or more additional users;
determine information associated with at least one wireless networking functionality of the mobile device;
provide, via said at least one network interface, the captured content from the mobile device to at least one server for insertion in association with the determined information into the identified application-based information channel; and
receive other content, via the identified application-based information channel, from at least one of the additional users.

33. Independent Claim 19 of the '039 patent recites:

19. A method comprising:

receiving, at a server from a mobile device, content for insertion into a previously established application-based information channel, the previously established application-based information channel permitting interaction between a user of the mobile device and one or more additional users;
receiving, at the server from the mobile device, information associated with at least one wireless networking functionality of the mobile device;
integrating the content and the information associated

with said at least one wireless networking functionality of the mobile device into the previously established application-based information channel;
and

inserting other content from at least one of the additional users into the previously established application-based information channel.

34. Independent Claim 22 of the '039 patent recites:

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

35. Independent Claim 23 of the '039 patent recites:

23. A server comprising:

at least one processing element comprising a processor coupled to a memory; and

at least one network interface;

said at least one processing element being configured to:

receive, from a mobile device, content for insertion into a previously established application-based information channel, the previously established application-based information channel permitting interaction between a user of the mobile device and one or more additional users;

receive, from the mobile device, information associated with at least one wireless networking functionality of the mobile device;

integrate the content and the information associated with said at least one wireless networking functionality of the mobile device into the previously established application-based

information channel; and
insert other content from at least one of the
additional users into the previously established
application-based information channel.

VI. THE PRIOR ART

A. Neibauer (EX1003)

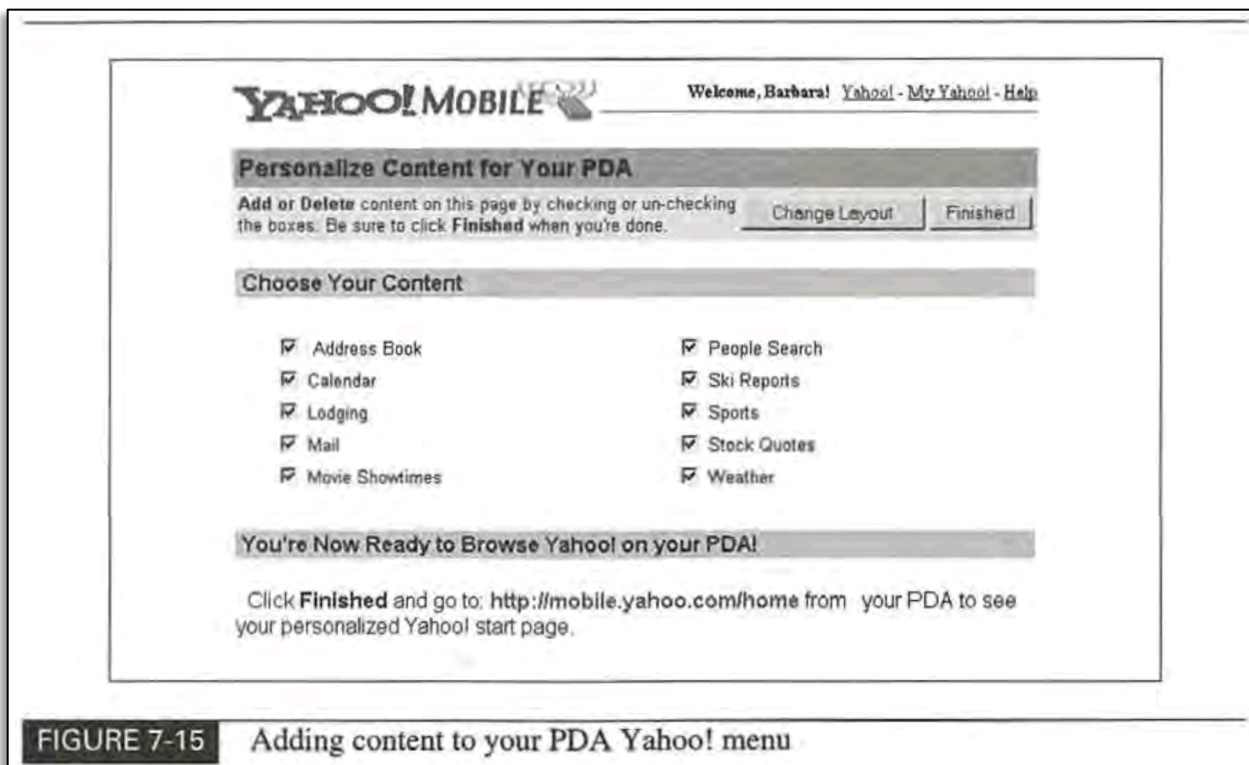
36. The book titled “How to Do Everything with Yahoo!”, by Alan Neibauer, is a book bearing a copyright of 2000 that describes services provided by Yahoo!, one of the leading Internet “portals” at the time. Neibauer, p.4. According to Neibauer, in order to access Yahoo!, all that was needed at the time was a computer with access to the Internet (such as a dial-up connection, which was the predominant way to access the Internet from a user’s home in that time frame). *Id.*

37. Petitioners mainly focus on two chapters from Neibauer. The first is Chapter 7 titled “Your Yahoo! Home Away from Home,” which explains how to access a limited subset of the Yahoo! services on a mobile phone or portable digital assistant (“PDA”). The second is Chapter 21 titled “Communicating with Clubs, Message Boards, Personals, and More,” which explains how to access and use Yahoo! features such as Clubs and Message Boards to collaborate with other Yahoo! user.

38. Petitioners take a “cut and paste” approach to these disclosures in Neibauer, taking the position that it would have been obvious to provide the user-interactive services described in Chapter 21 to users of mobile devices, simply

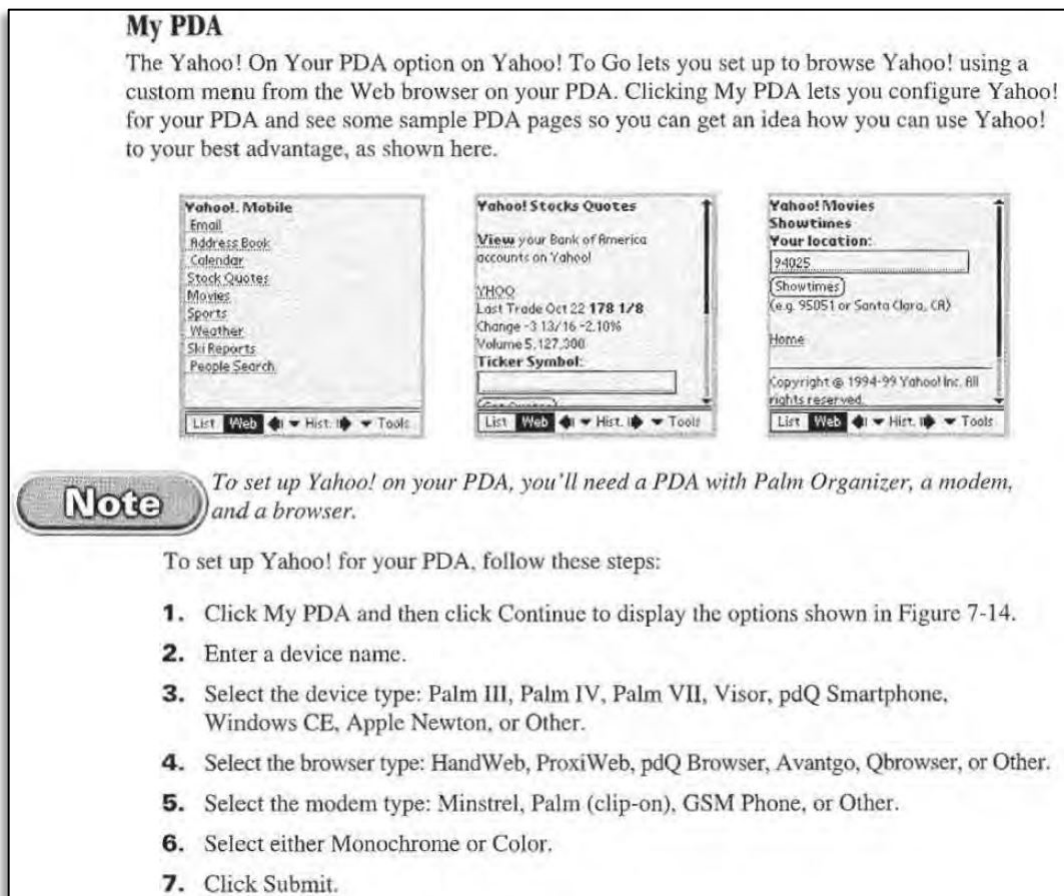
because Chapter 7 describes certain Yahoo! functionality being accessible via a mobile phone or PDA. Neibauer refers to the service itself as “Yahoo! Mobile” and the configuration process to allow a user to configure certain Yahoo! services to be received on a user’s mobile device as “Yahoo! To Go”. The only disclosure in Neibauer of Yahoo! services available on mobile phones was Mobile Alerts, which periodically sent short alphanumeric messages such as stock prices and weather reports to a cell phone or pager. Neibauer at 167-168. Neibauer also discloses that “Yahoo! To Go” could be used to configure a limited number of PDAs to access simplified versions of certain Yahoo! web pages. *Id.* at 171-172.

39. But Yahoo! screenshots included in Neibauer clearly show that none of the user-interactive features discussed in Chapter 21 were available for the types of devices described in Chapter 7. *See, e.g., id.* at 173-174, which describes a series of checkboxes a user could select to configure which of the PDA-capable Yahoo! services would be available on their PDA:



40. Chapter 7 clearly describes the provision of very limited functionality for handheld mobile devices, specifically “pagers, cell phones, Web phones, and personal digital assistants (PDAs).” Neibauer at 156. For example, Neibauer describes a briefcase function that allows remote access to files, but Yahoo only provided 10 MB of free storage. See, e.g., Neibauer at 156. The major feature of Yahoo! Briefcase was the ability to remotely access file sizes greater than 1.4MB, the size of a single floppy disk. *Id.*

41. For the second set of features, Yahoo! Mobile and Yahoo! To Go, support existed for only a limited number of device types: “pagers, cell phone, Web phones, and Personal digital assistants (PDAs).” Neibauer at 166. For example, for a PDA, Yahoo! To Go supports the following features:



Neibauer at 171.

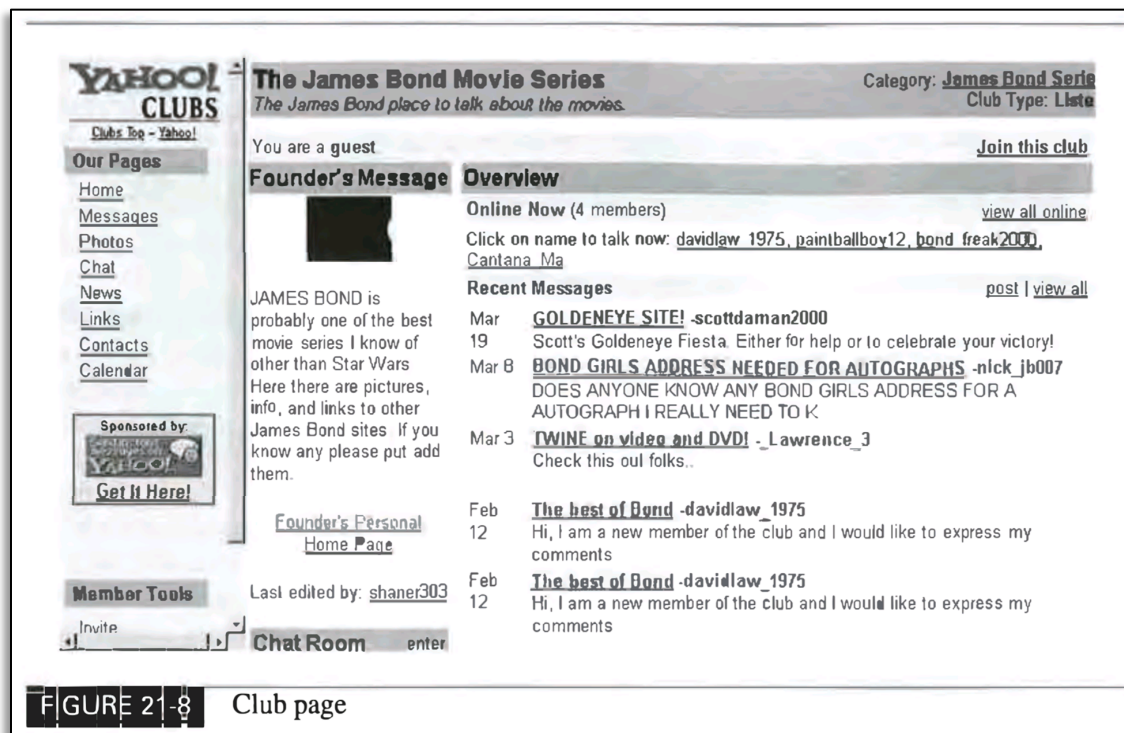
42. As shown in this figure, only PDAs were supported. These devices had very limited functionality, especially as compared to more recent devices. Their support for the display of web pages was highly limited and the features supported by Yahoo were similarly limited. *Id.* Finally, these devices had significant hardware constraints and missing functionality, like GPS, that would have been necessary to support the kinds of combinations alleged by Petitioners.

43. Moreover, typical wireless protocols prevalent at the time, notably Wireless Application Protocol (WAP) 1.x, operated under stringent constraints that

included extremely low throughput (typically below 20 kbps), high latency, and limited session continuity. Due to the nature of WAP-based browsers—such as Openwave or Nokia browsers—these devices lacked comprehensive support for dynamic HTML (DHTML), Cascading Style Sheets (CSS), or JavaScript functionalities, critically impairing their capability to render complex interactive elements inherent in Yahoo!’s Clubs environment.

44. I note that in Neibauer Figure 7-15 (shown above), none of Yahoo! Clubs, Message Boards, or Photo Albums, which Petitioners extensively rely on in their invalidity theories, were available on a PDA through Yahoo! Mobile and Yahoo! To Go. The reason was that media-rich, user-interactive features such as Yahoo! Clubs, Message Boards, or Photo Albums described in Chapter 21 are outside the capabilities of the handheld mobile devices described in Neibauer (“pagers, cell phones, Web phones, and PDAs”) available at the time and outlined in Chapter 7. Indeed, the various Clubs pages in Neibauer that Petitioners rely on show the resource-intensive nature of Clubs, including, in the screen size required to display the interface, the memory required to receive the website code and render the page on the screen, and the bandwidth required to receive the website code in a time frame the user would find acceptable.

45. For example, consider this screenshot of a main Club page shown on page 475 of Neibauer:



As Neibauer explains, this Club page “includes a message from the founder, a list of members who are currently online, and recent messages that are posted to the club’s message board. There are also links to the club’s private chat room and statistics about club members.” Neibauer at 473.

46. Another part of the Clubs interface Petitioners rely on is the club photo album, which allows a user to browse and view existing photos and upload new photos as shown on page 478 of Neibauer:



47. Comparing these resource-intensive interfaces of Neibauer's screenshots to the amount of information displayable on a PDA available at the time, it is evident that a service such as Clubs would have been unusable as a part of Yahoo! Mobile and Yahoo! To Go on "pagers, cell phones, Web phones, and personal digital assistants (PDAs)" as described in Chapter 7, even if the Clubs web pages could have been received in a timely manner and stored in the PDA's memory. In fact, Neibauer's screenshots of available Yahoo! Mobile and Yahoo! To Go services on a PDA show text-only interfaces, with no images at all:



Neibauer at 171.

48. This is particularly important given that Petitioners rely extensively on Clubs users with handheld mobile devices sharing photos, both being able to receive and view the main club picture uploaded by the founder (Neibauer Fig. 21-8, shown below “Founder’s Message”), and upload additional pictures to club photo albums by handheld mobile device users (Neibauer Fig. 21-10, by use of the “Add Photo” button). Yet, no similar functionality or even device capability are described in Chapter 7. As a result, even assuming a POSITA would have been motivated to provide support for Yahoo! Clubs on a handheld mobile device, it would have the highly simplified interface consistent with what is shown for basic web features like stock quotes. *Id.* A POSITA would not have expected such an interface to include support for multimedia, including viewing, posting, and sharing photos.

49. I therefore disagree that it would have been obvious to provide Yahoo! Clubs and related services to contemporaneous handheld mobile devices via Yahoo! Mobile and Yahoo! To Go. Furthermore, I view the fact that Yahoo! did not do so

as additional confirmation that it would have not been technically feasible. To a POSITA, it would be reasonable that the reason Yahoo! did not offer more services in Yahoo! Mobile and Yahoo! To Go, was because, for example, each type of device required specific configuration and the common types of handheld mobile devices would not support the more advanced features offered by Yahoo!.

50. This understanding would have been consistent with what a POSITA would have understood about handheld mobile device technology available in the early 2000s: screens were small, memory was limited, and wireless technologies available at the time had very slow transfer rates. See, generally Neibauer at Chapter 7. This is also reinforced by Petitioners own extrinsic evidence that they rely on to show the state of the art and commercial availability of transcoding proxy servers. Specifically, Petitioners and Houh quote from Uwe Hansmann et al., *Pervasive Computing Handbook* (2001) (EX1012) at p. 320: “When providers deliver content to various pervasive clients, they need to accommodate device specific constraints such as ***limited memory, slow data transmission, and small screens.***” (emphasis added).

51. From a resource management perspective, handheld mobile devices circa 2002 typically featured ARM-based processors with clock speeds below 100 MHz, complemented by RAM sizes commonly limited to approximately 8-16 MB. Given the demanding computational overhead for rendering HTML tables, images,

and dynamic page elements—particularly those involving GIF or JPEG image decompression—such devices would inevitably face excessive delays and memory exhaustion. Real-world implementations during this era consistently employed transcoding proxies specifically because native client-side rendering of rich media and scripting-intensive web content proved impractical.

52. Houh’s quote from Hansmann itself supports my opinion. Additional portions of Hansmann provide further support. For example, in the very prior sentence to Houh’s quote, Hansmann explains that transcoding often must remove website content that handheld mobile devices cannot support: “Multimedia data as it can be found on Web pages, is **filtered**, converted, and reformatted, until it reaches the capabilities of of the displaying device.” Id. (emphasis added). And when discussing the Palm Webclipping Proxy Server, an actual commercial implantation of a transcoding proxy server for Palm PDAs, Hansmann notes: “Applets, Java Script, frames, and cookies are not supported.”

53. Houh does not opine contrary to any of the above discussion of limited handheld mobile device capabilities, and indeed appears to ignore the state of the art in his obviousness analysis. Instead, using hindsight, he appears to assume, without support, that any capability needed to support his various combinations was readily available in 2002.

54. In my opinion, the technical infeasibility of providing a media-heavy,

full-screen interactive service such as Yahoo! Clubs on handheld mobile devices of the time is a basic flaw in his reasoning. It would not have been obvious to a POSITA to create the kinds of combinations suggested by Petitioners and Houh. Neibauer, for the reasons described above, supports my opinion.

B. Cheng (EX1005)

55. Cheng is a U.S. patent concerning a method by which a proxy server can access a web site and reformat its visual elements so they can be viewed by a mobile device. Mobile devices as disclosed in Cheng generally include handheld mobile devices, which include PDAs such as Palm devices (Cheng, 5:11-25) and smart phones (Cheng, 5:29-41). Cheng purports to disclose a go-between proxy server that could be used to attempt to convert conventional web sites for viewing on the typical handheld mobile devices of the time, which as I have discussed had small screens, limited memory, and received data over low- bandwidth connections.

56. Cheng's method starts when the proxy server receives a request from a mobile device to view a particular web page. Cheng, Abstract. The proxy server subsequently extracts images and text data from the requested web page and reformats the data so that it can be viewed properly by the mobile device that made the initial request. *Id.*

57. Cheng contemplates a type of universal website translation service that operates in the form of a go-between proxy server for one-way conversion of

conventional websites into a format viewable on mobile devices at the time. In particular, Cheng's proxy server purports to operate by receiving (or retrieving a cached copy of) a website, and then applying an operator-specified series of transformations to the website content that Cheng calls "SW-Transforms," which could be specified on a global basis (for all recipients) or on a device-specific basis (based on a recipient's specific mobile device). See, e.g., Cheng at 4:56-5:10; columns 17-22. Cheng's SW-Transforms include the capability of adding, replacing, or removing HTML tags and/or text from the source web page in order to attempt to format it for the destination mobile device. *Id.*

58. Cheng is a patent concerning technology apparently envisioned by Aether Systems (as shown by, e.g., the logo in Fig. 4 and the use of www.aethersystems.com in various example URLs). I am unaware of Aether Systems ever commercializing this technology, nor am I aware of any actual system in the 2002 time frame that even claimed to provide the sort of universal translation service imagined by Cheng. Houh does not opine that any existed, and in my opinion, it would have been technically infeasible to do at the time given the rich capabilities of relevant website technology available at the time such as HTML, Java, Javascript, and Flash, and the relatively meager capabilities of mobile phones and PDAs available in the 2002 era. As I discussed in more detail in my above discussion of Neibauer, my opinion is reinforced by other extrinsic evidence raised Petitioners and

Hough.

59. In fact, Cheng itself supports my opinions with its disclosure of SW-Transforms that convert, downscale, and/or fully delete content from the original website so that at least some of it could be displayed on a mobile device. Most notably, Cheng discloses SW-Transforms that completely remove certain HTML tags and content, giving as a specific example the removal of client-side scripting:

RemoveTagAndContent	
Description:	This rule tells the conversion engine to remove a specific tag, and the information that appears within the tags, from a Web site or Web content.
Syntax:	sw-transform "Mozilla/3.0 (compatible; HandHTTP 1.1 " RemoveTagAndContent:TAG
Example:	To remove the SCRIPT tag so that all of the client-side script on a specific Web site or page is removed, the following may be entered: sw-transform "Mozilla/3.0 (compatible; HandHTTP 1.1 "SCRIPT
Note: The RemoveTagandContent tag will not be completely effective if the Web content being transformed is poorly formatted (e.g., there is an open tag without a close tag). The conversion engine will attempt to clean up the HTML, but may not be completely effective. Also, this tag does not have any meaning for empty tags.	

Cheng at 19:42-60. Thus, if this SW-Transform were applied to a website that relied on client-side scripting, that website functionality would not work properly on the mobile device because the SW-Transform would have removed the scripting.

60. Additionally, Cheng's SW-Transforms, by explicitly removing

embedded JavaScript and applets, would inherently disable client-side interactivity essential for operations like form validation, dynamic content updates, or responsive navigation elements. The removal of these scripts substantially degrades user experience and interactivity. Indeed, a significant proportion of the functionality offered by Yahoo! Clubs—such as real-time member status updates or interactive photo-upload tools—would likely rely on such client-side scripting mechanisms, making them fundamentally incompatible with the transformation methods described in Cheng.

61. In fact, Cheng itself supports my opinions with its disclosure of SW-Transforms that convert, downscale, and/or fully delete content from the original website so that at least some of it could be displayed on a mobile device Cheng discloses that SW-Transforms can be applied on a device- specific basis (to conform all web pages to some specific constraint of a certain mobile device) and a site-specific basis (to adapt the contents of a certain web page or group of pages on a web site for all mobile devices). *See, e.g.*, Cheng, 11:45-62; 12:25-31.

62. Thus, the success or failure of displaying a given website on a given handheld mobile device would fundamentally depend on the design and capabilities of the website compared with the capabilities of the handheld mobile device. Neibauer does not disclose (and Houh does not otherwise opine on) the design of or capabilities required by the web pages making up Yahoo! Clubs and its constituent

services (Yahoo! Message Boards, Photo Albums, and Messenger), and Houh provides no opinion or evidence that those required capabilities, whatever they may have been, could have been translated by Cheng such that Yahoo! Clubs could have been successfully operated on any mobile device available in 2002. In my opinion, Petitioners' and Houh's analysis is necessarily incomplete due to the lack of such details in Neibauer, and his opinion that the Neibauer/Cheng combination would have worked (and thus a POSITA would have been motivated to combine them) is not supported by the references.

63. Cheng only envisions content delivery in a one-way data transfer: from the server hosting the requested website, through the proxy server translator, and to the client mobile device. *See, e.g.*, Cheng at Abstract:

A user generates a user request for a web page from a mobile device to a proxy server. The proxy server forwards the user request to an origin web server, which returns the requested web page to the proxy server. A conversion engine within the proxy server extracts the desired content from the web page, and reformats the content in accordance with one or more predefined transform methods associated with the one or more mobile devices before transmitting the transformed web page with the desired content to the one or more mobile devices.

64. *See also* Cheng claim 14:

14. A method for extracting and reformatting web page content into a format tailored for a mobile device, comprising:

providing a connection between said mobile device and a physical proxy server;

providing mobile device related information to said physical proxy server from said mobile device, said mobile device related information comprising at least one of a type of content viewer and a type of operating system associated with said mobile device;

receiving a web page from a physical origin web server;

site-mining, at said physical proxy server, to extract content from said web page according to a predefined criteria;

conversion, at said physical proxy server, of said site-mined content based on said mobile device related information; and

forwarding said converted content to said mobile device.

65. Consistent with all these disclosures, Houh does not opine that Cheng envisioned or allowed for upstream data transfer from a client device through the proxy server to the host web server or any other server.

66. Critically, Cheng's disclosure revolves around HTTP GET-based retrieval and SW-Transform-based simplification. However, it does not address complexities associated with HTTP POST methods or other mechanisms required for data upload (e.g., file uploads via multipart form data encoding specified in RFC1867). The ability to upload content (such as photos or multimedia files) from mobile devices at the time would have necessitated substantial modifications to Cheng's proxy logic to accommodate session handling, authentication persistence via cookies, and appropriate MIME-type handling for successful binary data

encapsulation.

C. Ausems (EX1006), Squibbs (EX1011), and Harvey (EX1010)

67. It is my understanding that, for the independent claims (claims 1, 17, 18, 19, 22, and 23), Petitioners combine additional references for ancillary features: e.g., Ausems as teaching “a mobile device that incorporated a digital camera for recording, storing, and transmitting digital images”; Squibbs for the disclosure of location-based functionality in a mobile device, and Harvey to “account for a construction of ‘application-based information channel’” and for its disclosure of “the ability to add content to a community before the community is created.”

68. I do not understand these nuances to have any bearing on Petitioners’ or Houh’s theories on the motivation to combine Cheng with Neibauer, and the presence or absence of these additional references has no bearing on my opinions on why a POSITA would not have combined Cheng with Neibauer. However, for at least similar reasons, a POSITA would also have not been motivated to add additional media- rich features such as image transfer and sophisticated web-based collaboration support to the types of devices contemplated by Neibauer and available at the time. Furthermore, as discussed herein, even if one were to combine each of the references, such as combination would still fail to teach or suggest certain recitations of the independent claims.

VII. DEFICIENCIES OF THE PETITION

A. Obviousness Based on Neibauer Alone

69. Petitioners and Houh opine that it would have been obvious to combine Neibauer's Chapter 22 disclosure of Clubs and its associated services with Neibauer's Chapter 7 disclosure of Yahoo! Mobile and Yahoo! To Go. See Houh at 46. I disagree that it would have been obvious for at least the reasons I explained in my introduction to Neibauer above.

B. Prior Art Lacks Disclosure of Limitations of Independent Claims

70. The Petition asserts that the features of Yahoo! and the uses of its services and tools, notably referencing the Yahoo! Clubs feature, renders the majority of the claim limitations of the independent claims obvious. However, none of the prior art mentions at least the claim limitation "identifying a[n] ... application-based information channel" (into which content from a mobile device, including captured content from a mobile device, is to be inserted), as generally recited in the independent claims. The specific limitation discussed above is provided below:

71. Independent Claims 1 and 17 recite, in part, "identifying a previously established application-based information channel into which the captured content is to be inserted, the identified application-based information channel permitting interaction between a user of the mobile device and one or more additional users".

72. Independent Claim 18 recites, in part, "identify a previously established application-based information channel into which the captured content is to be

inserted, the identified application-based information channel permitting interaction between a user of the mobile device and one or more additional users”.

73. Independent Claims 19 and 22 recite, in part, “receiving, at a server from a mobile device, content for insertion into a previously established application-based information channel, the previously established application-based information channel permitting interaction between a user of the mobile device and one or more additional users”.

74. Independent Claim 23 recites, in part, “receive, from a mobile device, content for insertion into a previously established application-based information channel, the previously established application-based information channel permitting interaction between a user of the mobile device and one or more additional users”.

75. Neibauer is completely devoid of any teaching or suggestion of at least the claim limitation “identifying a[n] ... application-based information channel” (into which content from a mobile device, including captured content from a mobile device, is to be inserted), as generally recited in the independent claims (e.g., limitation 1[B] of claims 1 and 17, limitation 18[D] of claim 18, limitation 19[A] of claims 19 and 22, and limitation 23[D] of claim 23).

76. Neibauer simply discloses use of the Yahoo! website for accessing the various features, including the clubs feature, in contrast to use of an “application-

based” information channel. In fact, there is no disclosure of use of a “application” whatsoever for the Yahoo! Clubs feature. Rather, as admitted by Houh, the Yahoo! Clubs feature is accessible from a webpage on the Yahoo! website, which allows users to search existing clubs relating to specific topics of interest, and a user clicks a hyperlink for a given club. Ex.1002, ¶51; Neibauer, 473. Neibauer explicitly states that a user can “Access Yahoo! clubs by clicking Clubs on the Yahoo! home page or by going directly to <http://clubs.yahoo.com/> to open the page....” Id. Petitioners’ expert also concedes this. Ex.1002, ¶93; ¶127. As I discussed above, a user utilizes the Yahoo! website to further access and use the web-based Yahoo! Clubs feature for the sharing of content, as opposed to using any kind of application-based channel. In particular, the photo sharing provided by Yahoo! Clubs is merely a feature that is web-based, in contrast to being application-based. See Ex.1002, ¶93; ¶127.

77. It is my understanding that Petitioners do not rely on any of the remaining prior art (Cheng, Ausems, Squibbs, and Harvey) as disclosing any form of application-based information channel. Even so, Petitioners cannot rely on the prior art, as neither Cheng, nor Ausems, nor Squibbs, nor Harvey teaches or suggests at least the claim limitation “identifying a previously established application-based information channel” into which content from a mobile device, including captured content from a mobile device, is to be inserted.

78. As I previously discussed above, Cheng discloses systems and methods

of extracting content from a web page and reformatting the extracted content for viewing on a mobile device. Petitioners rely on Cheng for the teaching of proxy servers and use of such servers in making web content viewable on mobile devices, specifically suggesting that 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. Cheng is merely related to use with web site-specific conversions.

79. It is my understanding that Petitioners rely on Harvey to “account for a narrower construction of ‘application-based information channel’”, but more specifically for its purported disclosure of “the ability to add content to a community before the community is created.” However, Harvey fails to cure the deficiencies of the prior art (Neibauer, Cheng, Ausems, and Squibbs) as discussed above. In particular, there is no disclosure in Harvey of identifying an application-based information channel that is “previously established”, as recited in limitations of the independent claims.

80. As an initial matter, it is my understanding that Harvey is generally directed to *web-based* community creation (Harvey, 7:49-56, 8:49-50), in which a user can establish a connection with a community, among other ways, “*through browser access to an appropriate website.*” Harvey, 29:59-62. As such, Harvey suffers from the same deficiencies as Neibauer that I discussed above. Thus, even

if one were to combine the teachings of Harvey with Neibauer (and any other remaining prior art), such a combination would still fail to teach or suggest at least the claim limitations of the independent claims provided above.

81. Furthermore, Harvey does not adequately specify mechanisms for dynamic state management required by application-based information channels, particularly concerning session-state persistence between client and server interactions. Modern collaborative applications (as intended by the '039 patent) rely heavily on persistent application state and real-time data synchronization between multiple users. The HTTP-based model depicted in Harvey's disclosures lacks support for stateful interactions, particularly in the context of stateless HTTP requests common in the web architectures of that era, thus fundamentally diverging from the patent's requirements.

82. In any event, it is my understanding that Petitioners and Houh assert that Harvey discloses a "previously established" information channel because "[t]he key feature of Harvey here is the ability of a community creator to author content for a community before the community is created and launched." Petition at 68 ("Harvey therefore discloses the ability to add content to a community using the community-creation tool, before the community is created."). However, Petitioners and Houh are incorrect in their assertions.

83. Harvey describes the use of a community creating module, described

as being capable of permitting a creator to create a community and designate applications and content to be presented in the community (Petitioners and Hough suggest that the community that Harvey describes is the information channel). The capabilities of this community (information channel), however, are permitted *during* the creation of the community, and *do NOT occur before* the creation of the community.

84. Harvey's discussion about creation of the community and designation of content for the community that clearly states the designation of content occurs *during* the creation of the community: "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.*'" Petition at 68 (citing Harvey, 4:28-30). Petitioners distort this by saying that "Harvey therefore discloses the ability to add content to a community using the community-creation tool, *before* the community is created." Petition at 68.

85. Petitioners and Houh are combining the terms "created" and "launched" as if they are a single action. The Petition asserts "[t]he key feature of Harvey, for purposes of this ground, is its disclosures of a community creator being able to add content to a community *before* the community is created and launched." Petition at 68. However, Petitioners' statement is factually incorrect, as the creation and subsequent launching of a given community are two separate actions. The

addition of content to a given community occurs *during* the creation of the community, *not before* the creation of the community. Accordingly, while a community creator may add content to a community before it is launched, the community creator cannot add content to a community before the community itself is created. Petitioner's expert statement is thus inaccurate and misleading.

C. Motivation to Combine Neibauer and Cheng

86. The Petition asserts that the features of Yahoo! and the uses of its services and tools, notably referencing the Yahoo! Clubs feature, renders the majority of the claim limitations of the independent claims obvious.

87. Petitioners and Houh opine that it would have been obvious to combine Neibauer and Cheng, specifically applying the Neibauer/Cheng combination to claim elements reciting mobile functionality. *See* EX1002 at 43-51. I disagree the combination would have been obvious, for several reasons.

88. First, as I discuss in the above section, Houh separately opines that it would have been obvious to a POSITA to provide Yahoo! Clubs and its associated services to a mobile device simply based on Neibauer's disclosure of certain Yahoo! services being available on mobile devices via Yahoo! Mobile and Yahoo! To Go. Again, I disagree this would have been obvious, but Houh's opinion that Neibauer itself discloses this functionality contradicts his opinion that a POSITA would have been motivated to combine Neibauer with Cheng to achieve the same functionality.

If Neibauer does not actually have a deficiency, there would be nothing to motivate a POSITA to look to Cheng or any other reference.

89. Assuming Houh's position that Neibauer alone would have rendered the claims obvious is incorrect and Neibauer is actually deficient, adding Cheng would not solve the deficiency. Petitioners and Houh do not propose modifying Cheng's proxy translation system in any way, and in fact refers to it as "bolt-on functionality." *See* EX1002 at 43.

90. As I discuss above in my overview of Cheng, Cheng's system only discloses simplistic, one-way functionality: a mobile device sends a request for a web page to the proxy server; the proxy server forwards that request to the actual web server (or retrieves the page from the proxy server's internal cache if it had been previously retrieved from the web server and stored in the cache), applies the appropriate set of SW-Transforms to the web page based on the capabilities of the requesting mobile device; and sends the translated page to the mobile device.

91. Consistent with this, the preambles of Cheng's independent claims all recite some variation on "reformatting content into a format readable on a mobile device" Cheng at cols. 24-28 ("1. A system for extracting and reformatting web page content into a format readable on a mobile device"; "11. A method for extracting, filtering and reformatting web page content into a format readable on a mobile device at a physical proxy server"; "12. A system for reformatting content into a

format readable on a mobile device”; “13. A system for reformatting web page content into a format readable on a mobile device”; “14. A method for extracting and reformatting web page content into a format tailored for a mobile device”; “18. A physical proxy server for extracting and reformatting web page content into a format tailored for a mobile device”; “22. Apparatus for extracting and reformatting web page content into a format tailored for a mobile device”). But the claims of the Challenged Patents recite two-way, interactive functionality, where the mobile device not only receives but sends content.

92. I disagree with Houh that a POSITA would have had a reasonable expectation of success in combining Neibauer and Cheng. As I discussed above, Cheng’s SW-Transforms scheme, particularly the RemoveTagAndContent used to strip functionality such as scripts from web pages for incapable mobile, shows that Cheng’s system was not a panacea, but rather might work for certain combinations of website content and mobile devices and might work poorly or not at all for other combinations. In my opinion, it is impossible for a POSITA to know how Yahoo! coded its Clubs and related web pages—and thus whether and to what extent Cheng’s translation system would have allowed successful operation on a mobile device—from the minimal disclosure in Neibauer.

93. Furthermore, Houh opines that the portions of Yahoo! Clubs he relies on involve “nothing more than straightforward web programming techniques relying

on standard technologies such as HTTP, HTML” (EX1002 at 51), but he does not cite to anything from Neibauer to support this, and even if correct that begs the question of whether Yahoo! Clubs only used a subset of HTML that could be successfully translated by Cheng’s translator such that it could actually be used on a contemporaneous mobile web browser.

94. All that aside, a POSITA also would understand that, even if they were to engage in the level of experimentation needed to adapt Neibauer’s web pages to an available mobile device with all the required functionality intact, it would not matter: the POSITA still would not have had a reasonable expectation of success in combining Neibauer and Cheng for the reason I discussed at length above: that Yahoo! Clubs requires two-way interaction and transfer of content (e.g., both viewing photos in an album and uploading new photos to the album), while Cheng’s proxy server is only configured to handle content delivery in a single, downstream direction. In my opinion, modifying Cheng’s proxy server to support upstream content delivery would be well outside the capabilities of a POSITA, under either my or Houh’s definition.

VIII. CONCLUSION

95. I hereby declare under penalty of perjury under the laws of the United States of America that the foregoing is true and correct, and that all statements made of my own knowledge are true and that all statements made on information and belief

are believed to be true. I understand that willful false statements are punishable by fine or imprisonment or both. *See* 18 U.S.C. Section 1001. I reserve the right to modify my opinions as additional information becomes available to me.

Dated: June 11th, 2025

By: 

Mahdi Eslamimehr, Ph.D.