UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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META PLATFORMS, INC.,
Petitioner

v.

MOBILE DATA TECHNOLOGIES LLC,
Patent Owner

_____
IPR2024-00246
Patent 8,793,336 B2

_____
IPR2024-00247
Patent 8,825,801 B2

_____
IPR2024-00248
Patent 9,032,039 B2

_____
IPR2024-00249
Patent 9,619,578 B2

_____
IPR2024-00250
Patent 9,922,348 B2

_____

DECLARATION OF DR. NENAD MEDVIDOVIĆ IN SUPPORT OF PATENT OWNER'S RESPONSES TO PETITIONS

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I, Nenad Medvidović, of Los Angeles, California declare that:

I. ASSIGNMENT

1. I have been retained by counsel for Patent Owner, Mobile Data Technologies, LLC ("MDT," or "Patent Owner") as an independent expert testifying in this matter against Petitioner, Meta Platforms, Inc. ("Meta" or "Petitioner"). I understand that the Patent Trial and Appeal Board ("PTAB" or "Board") has instituted an *inter partes* reviews ("IPR"), based on Petitions filed by Meta, of Patent Owner's (i) U.S. Patent No. 8,793,336 (the "'336 Patent") designated as IPR2024-00246 ("246 IPR"), (ii) U.S. Patent No. 8,825,801 (the "'801 Patent") designated as IPR2024-00247 ("247 IPR"), (iii) U.S. Patent No. 9,032,039 (the "'039 Patent") designated as IPR2024-00248 ("248 IPR"), (iv) U.S. Patent No. 9,619,578 (the "'578 Patent") designated as IPR2024-00249 ("249 IPR"), and (v) U.S. Patent No. 9,922,348 (the "'348 Patent") designated as IPR2024-00250 ("250 IPR"). I will refer to these IPRs collectively as "the IPRs" and to these patents collectively as "the Challenged Patents." I have been asked to consider the arguments raised by the Petitions regarding the validity of the Challenged Patents in these proceedings. Because the Challenged Patents all share the same specification and only differ with respect to their claims, I discuss all five patents in this Declaration and understand it will be filed in all five proceedings. Many of my opinions expressed herein apply to all of the IPRS and all of the

Challenged Patents. Where an opinion applies only to a subset, I will refer to the specific IPR or the specific Challenged Patent to which the opinion applies.

2. In this Declaration, I describe my anticipated testimony regarding Defendants' Declarations of Vijay K. Madisetti, Ph.D. dated December 5, 2024, ("Madisetti Declaration") regarding the validity of claims 1, 6-11, 13-18, 20-21, and 23-27 of the '336 Patent, claims 1-25 of the '801 Patent, claims 19-23 of the '039 Patent, claims 1-19 and 21-22 of the '578 Patent, and claims 1-20 of the '348 Patent (the listed claims are referred to collectively herein as the "Challenged Claims"). I have been asked to opine on the subject of the obviousness of the Challenged Claims in light of the grounds at issue in these *inter partes* reviews.

3. I understand that obviousness is one basis on which a claim can be found to be invalid. I have been informed that obviousness does not require a single prior art reference to disclose all of the claim limitations of a Challenged Claim but that multiple references can be combined to disclose all of the required claim elements. I further understand obviousness is determined on the basis of underlying factual determinations including: (1) the scope and content of the prior art; (2) the differences between the claims and the prior art; (3) the level of ordinary skill in the art; and (4) any objective evidence of nonobviousness.

4. It is my understanding that the asserted grounds of obviousness are as follows:

Ground	References	Basis (35 U.S.C.)	Claims Being Reviewed
246 IPR			
1	Neibauer In View Of Miller and Cheng	Obviousness	1, 6-11, 13-18, 20-21, 23-27
2	Ground 1 Prior Art In Further View Of Ausems	Obviousness	7
3	Ground 1 Prior Art In Further View Of Fransioli	Obviousness	21-22
4	Ground 1 In Further View Of Harvey	Obviousness	1, 6-11, 13-18, 20-21, 23-27
5	Ground 2 In Further View Of Harvey	Obviousness	7
6	Ground 3 In Further View Of Harvey	Obviousness	21-22
247 IPR			
1	Neibauer In View Of Miller, Cheng, And Squibbs	Obviousness	1-25
2	Ground 1 Prior Art In View Of Harvey	Obviousness	1-25
248 IPR			
1	Neibauer In View Of Cheng, And Squibbs	Obviousness	19-20, 22-23
2	Neibauer In View Of Cheng, Squibbs, And Bandera	Obviousness	21
249 IPR			
1	Neibauer In View Of Ausems, Cheng, And Squibbs	Obviousness	1-19, 21-22
2	Ground 1 Prior Art In View Of Harvey	Obviousness	1-19, 21-22
250 IPR			
1	Neibauer In View Of Ausems, And Cheng	Obviousness	1-3, 6-9, 12-14, 17-18
2	Neibauer In View Of Ausems, Cheng, And Squibbs	Obviousness	4-5

3	Neibauer In View Of Ausems, Cheng, And McElfresh	Obviousness	10-11, 15-16, 19-20
4	Ground 1 In Further View Of Harvey	Obviousness	1-3, 6-9, 12-14, 17-18
5	Ground 2 In Further View Of Harvey	Obviousness	4-5
6	Ground 3 In Further View Of Harvey	Obviousness	10-11, 15-16, 19-20

5. In forming my opinions as set forth in this Declaration, I have relied upon my education, research, training, and experience in the area of computer science, computer engineering, including distributed (e.g., client-server, peer-to-peer, microservice-based, web-based, etc.) systems, mobile devices and their operating systems, as well as the state of the art at the time of the priority date for the ’336 Patent. I have also relied on my review and analysis of the materials disclosed in Section III below.

6. I am being compensated for my work as an expert with respect to this *inter partes* review, but my compensation is not contingent in any way on the content of my opinions or the outcome of this proceeding.

II. QUALIFICATIONS

7. My curriculum vitae (“CV”) is attached hereto as Exhibit 2008 and provides an accurate identification of my background and experience.

8. I received a Bachelor of Science degree, *summa cum laude*, from

Arizona State University's Computer Science and Engineering department.

9. I received a Master of Science degree from the University of California at Irvine's Information and Computer Science department.

10. I received a Doctor of Philosophy degree from the University of California at Irvine's Information and Computer Science department. My dissertation was entitled "Architecture-Based Specification-Time Software Evolution."

11. For nearly thirty years, my research has focused on the building blocks of software systems: software components (computational and data elements) and connectors (interaction-facilitating elements), and mechanisms for their implementation. In particular, I have focused on middleware facilities and software frameworks. In my Ph.D. dissertation—whose first research results were published in 1995 while the dissertation was completed in 1999—yielded a new design style for the development and evolution of highly distributed software systems built out of independent components that exchange different types of information encoded in messages in order to accomplish specific goals. This research focused on the design principles behind those systems, the appropriate support for modeling the systems (both at the level of individual agents as well as their integrations into subsystems and entire systems), and the infrastructure for their implementation, deployment, and optimization. This work was applied across

a wide range of domains, from traditional distributed systems to mobile devices and autonomous robots.

12. I am employed by the University of Southern California ("USC") as a faculty member in the Computer Science Department and have been since January 1999. I am a tenured professor. Since July 2022, I have served as my Department's Chair. Between January 2009 and January 2013, I served as the Director of USC's Center for Systems and Software Engineering. Between July 2011 and July 2015, I served as my Department's Associate Chair for Ph.D. Affairs. Between July 2021 and June 2022, I served as my Department's Vice Chair for Tenure Affairs.

13. I teach graduate and undergraduate courses in software architecture, software engineering, and embedded systems, and I advise Ph.D. students. I have graduated nineteen Ph.D. students and advise seven students currently pursuing a Ph.D.

14. I served as Program Co-Chair for the flagship conference in my field-International Conference on Software Engineering ("ICSE")—held in May 2011. I have served as Chair or Co-Chair for various other conferences in the Software Engineering field, including: the Fifth Working Institute of Electrical and Electronics Engineers ("IEEE")/IFIP Conference on Software Architecture, the Third IEEE International Conference on Self-Adaptive and Self-Organizing Systems, the Fifteenth International Association for Computing Machinery's

("ACM") Special Interest Group on Software Engineering ("SIGSOFT") Symposium on Component Based Software Engineering, the IEEE/CSSE/ISE Workshop on Software Architecture Challenges for the 21st Century, and the Doctoral Symposia at the Sixteenth ACM SIGSOFT International Symposium on the Foundations of Software Engineering and at the 44th International Conference on Software Engineering.

15. I serve or have served as an editor of several peer-reviewed journals, including "IEEE Transactions on Software Engineering," "ACM Transactions on Software Engineering and Methodology," "Journal of Software Engineering for Robotics," "Elsevier Information and Software Technology Journal," "Journal of Systems and Software," "Journal of Software Engineering Research and Development," and "Springer Computing Journal." Additionally, I have served as a guest editor of several special issues for other journals. Since January 2018, I have served as Editor-in-Chief of "IEEE Transactions on Software Engineering."

16. Between September 2013 and September 2015, I served as Chair of the ICSE Steering Committee. Both prior to that (2008-2013) and subsequent to that (2015-present) I have been a member of the ICSE Steering committee. I am currently a member of the Steering Committee of the joint European Conference on Software Engineering and the Symposium on the Foundations of Software Engineering ("ESEC/FSE"). From July 2015 to September 2017, I chaired the

Steering Committee of FSE, while it was a standalone symposium. I previously served as a member of the Steering Committees of the Working IEEE/IFIP Conference on Software Architecture.

17. Between July 2015 and June 2018, I served as Chair of the ACM SIGSOFT, the largest professional organization in my field. During the past year, I have chaired the committee in charge of ACM"s Software System Award, one of the most important technical awards given in my field.

18. I co-authored *Software Architecture: Foundations, Theory, and Practice*, a widely used textbook in the field of software systems architecture.

19. I have served as editor of various books in the Software Engineering field, including *Proceedings of the 3rd International Conference on Self-Adaptive and Self-Organizing Systems*, *Proceedings of the Warm-Up Workshop for the 32nd International Conference on Software Engineering*, *Proceedings of the 5th Working IEEE/IFIP Conference on Software Architecture*, and *40 Editions of ICSE-the Ruby Anniversary Celebration*.

20. I have authored or co-authored nearly 300 papers in the Software Engineering field. My work has been cited over 21,000 times to date. My most cited paper alone has been cited well over 3,000 times. A paper I co-authored in the 1998 International Conference on Software Engineering ("ICSE"), my field's flagship conference, was given ten years later, in 2008, that conference's Most

Influential Paper Award. Another of my publications received a Most Influential Paper Award in 2020. Several of my other publications have received "best paper" or "most cited" awards.

21. Several of my publications have focused on different aspects of mobile and distributed systems. These date all the way back to the turn of the century, with two highly-cited publications on architectures of dynamically adaptable systems in 1998 and 1999 (including the ICSE 1998 Most Influential Paper). This was followed by a series of influential publications on handheld, mobile, and resource-constrained systems between 2001 and 2003, and significant extensions of that work since.

22. I have co-invented three patents in the area of distributed systems design, implementation, deployment, and security. All three patents are applicable to distributed, mobile, and resource-constrained settings.

23. I have been named a Distinguished Scientist of the ACM. I have been elected a Fellow of the IEEE. Fellow of the IEEE is IEEE's highest grade; less than 0.1% of its membership earns this grade each year.

24. Although I am more qualified than a person having ordinary skill in the art, I have experience in the level of understanding of such a person, as I have worked with students and colleagues who fit the description of a person having ordinary skill in the art for over twenty years. I agree that such persons would have

a bachelor degree in computer engineering, computer science, or a similar discipline, and two years of professional experience in the fields of distributed systems, embedded systems, mobile applications, or related fields.

III. MATERIALS CONSIDERED

25. The materials I considered include each of the Challenged Patents, each of the Petitions for *inter partes* review, each of the Madisetti Declarations in support of the Petitions,[1] the Neibauer reference (246 IPR Ex. 1003), the Miller reference (246 IPR Ex. 1004), the Cheng reference (246 IPR Ex. 1005), the Ausems reference (246 IPR Ex. 1006), the Fransioli reference (246 IPR Ex. 1007), the Harvey reference (246 IPR Ex. 1010), the Squibbs reference (247 IPR Ex. 1011), the Bandera reference (248 IPR Ex. 1017), the McElfresh reference (250 IPR Ex. 1014), each of the Patent Owners' Preliminary Responses, each of the Board's decisions to institute *inter partes* review, and the Joint Claim Construction Statement submitted by the parties in the District Court for the Western District of Texas on September 13, 2023 (246 IPR Ex. 1025).

26. I also considered the following materials that I refer to and that I cite

[1] Throughout this Declaration, I refer to Dr. Madisetti's Declarations in each case by the IPR: IPR2024-00246 EX1002 ("246 Madisetti"); IPR2024-00247 EX1002 ("247 Madisetti"); IPR2024-00248 EX1002 ("248 Madisetti"); IPR2024-00249 EX1002 ("249 Madisetti"); IPR2024-00250 EX1002 ("250 Madisetti").

in this declaration:

a. Alia Paavola, *Smartphone History: A Complete Timeline* (Dec. 19, 2022), available at https://www.textline.com/blog/smartphone-history (attached as Exhibit 2009).

b. Brian L. Clark, *2002 Laptop Guide*, CNN Money (Apr. 5, 2002), available at https://money.cnn.com/2002/04/11/pf/features/laptop/mag_laptop_picks/hs~index.htm (attached as Exhibit 2010).

c. National Institute of Standards and Technology, Glossary, available at https://csrc.nist.gov/glossary/term/mobile_device (attached as Exhibit 2011).*Wireless Networks: Understanding Your Wireless Connection*, https ://www.ruckusnetworks.com/insights/wireless-networks-understanding-your-wireless-connection/ (attached as Exhibit 2012).

d. Paul Brannen, BBC News, SCI/TECH, *Wap - wireless window on the world*, available at news.bbc.co.uk (Dec. 8, 1999) last viewed Sept. 8, 2024 (attached as Exhibit 2013).

e. Gottried Vossen & Stephan Hagemann, *From Version 1.0 to Version 2.0: A Brief History Of the Web*, in Working Papers, European Research Center for Information Systems No. 4. (eds. Becker, J., *et al.*, Münster 2007), available at https://www.econstor.eu/bitstream/10419/58411/1/717284069.pdf last viewed Sept. 29, 2024 (attached as Exhibit 2014).

f. Steffen Zellfelder, *Is it bad to leave your laptop always plugged in?*, PC World (Aug. 29, 2023), available at https://www.pcworld.com/article/2038685/laptop-macbook-always-plugged-in-is-that-bad.html last viewed Sept. 29, 2024 (attached as Exhibit 2015).

g. https://wirelesslogic.com/iot-glossary/what-is-hsdpa/#:~:text=Introduced%20with%20Release%205%20of,a%20higher%20data%20transfer%20rate (attached as Exhibit 2016).

h. Keitaro, *Marketing Mattters: History of Mobile Browsers* (Oct. 9, 2023), available at https://blog.keitaro.io/en/marketing-matters-

history-of-mobile-browsers/ last viewed Sept. 30, 2024 (attached as Exhibit 2017).

i. *i-Mode – Using CHTML*, available at https://www.tutorialspoint.com/i-mode/imode_using_chtml.htm last viewed Sept. 30, 2024 (attached as Exhibit 2018).

j. Robin Osborne, *A Brief History of HTML Part 1* (July 17, 2025), available at https://www.robinosborne.co.uk/tag/chtml/ last viewed Sept. 30, 2024 (attached as Exhibit 2019).

k. Brooke Crothers, *IBM Joins the Windows CE-based Race* (Jan. 2, 2002), available at https://www.cnet.com/culture/ibm-joins-the-windows-ce-based-race/, last viewed Sept. 30, 2024 (attached as Exhibit 2020).

l. Chris Tilley, *IBM Workpad z50 Review* (Mar. 3, 2005), available at https://www.hpcfactor.com/reviews/hardware/ibm/workpad-z50/, last viewed Sept. 30, 2024 (attached as Exhibit 2021).

m. *Jornada 820 palmtop PC, 1998*, available at https://www.hp.com/hpinfo/abouthp/histnfacts/museum/personalsystems/0038/index.html, last viewed Sept. 30, 2024 (attached as Exhibit 2022).

n. Pen Computing Magazine, *LG Electronics Phenom II* (Dec. 1997), available at https://www.pencomputing.com/WinCE/phenom2.html, last viewed Sept. 30, 2024 (attached as Exhibit 2023).

27. In addition, I have drawn on my experience and knowledge, as discussed above and described more fully in my CV, in the areas of software engineering, computer science, networking, network-based systems and applications.

IV. SUMMARY OF MY OPINIONS

28. I understand that issued patents are presumed to be valid and that, during an *inter partes* review, the petitioner bears the burden of proving that a challenged patent claim is unpatentable, in this case based on obviousness. In my opinion, Meta has failed to meet that burden. Specifically, it is my opinion that the Challenged Claims are not invalid and that Meta has failed to show otherwise.

29. It is my understanding that to prove that a claim is obvious the petitioner must show that all the limitations of a claim are present in a proposed combination of prior art references and that a person of ordinary skill in the art ("POSITA") would be motivated to combine the references in the proposed manner. It is my opinion that Petitioner has failed to do that. Meta's proposed prior art combinations do not disclose all limitations of any Challenged Claim. Furthermore, a POSITA at the time of the invention would not have combined the references in the manner suggested by Meta.

30. A POSITA simply would not have been motivated to combine the prior art references suggested by Petitioner. But even if a POSITA had made the suggested combinations of prior art, they would have done so in a very different manner than Petitioner suggests. Finally, even if a POSITA had combined the references as Petitioner suggests, the result would not have met all the limitations of any claim.

31. The prior art combinations asserted by Petitioner appear merely to be

the result of hindsight. As stated above, a POSITA at the time of the invention would not have been motivated to make Petitioner's proposed combinations. Instead, these proposed combinations seem to result from using the Challenged Patents as a roadmap, enabling Petitioner to cherry pick portions of prior art references and arguing for their combination without a sufficient reason to do so other than the teachings of the challenged patents.

32. My opinions in this Declaration are based on my review of the materials described in Section III above. My opinions also draw upon my experience and knowledge of computer networking, architecture, and software design.

V. UNDERSTANDING OF PATENT LAW

33. Counsel has advised me of the following general principles of patent law,[2] which I have used in my analysis:

a. I understand that issued patents are presumed to be valid and that in an *inter partes* review a petitioner carries the burden of proof of showing unpatentability by a preponderance of the evidence.

b. I understand that a patent's claim limitations should be interpreted in view of the specification—as it would have been interpreted by a POSITA at the time of the invention.

[2] In addition to the general principles listed here, counsel has explained other specific aspects of patent law, which I discuss below where they are relevant.

c. I understand that I should place myself in the shoes of a POSITA at the time of the invention. I should not consider the invention of the Challenged Patents using the hindsight that results from knowing what a POSITA would know today. I understand that "the time of the invention" for the Challenged Patents is June 18, 2002, which is the filing date of the original provisional application 60/389,430 to which the patents claim priority.

d. I understand that "prior art" refers to patents and other publications in the relevant field that were available before the priority date of the inventions, which is discussed above.

e. I understand that a claim is invalid if it is rendered obvious by the prior art. Specifically, I have been instructed that a patent claim is obvious and therefore unpatentable if the differences between the challenged claim and the prior art are so insignificant that the subject matter, as a whole, would have been obvious to a POSITA at the time of the invention. I further understand that obviousness is considered on the basis of each individual challenged claim and that a prior art combination must teach all limitations of a challenged claim in order to render that claim obvious. Finally, the determination of obviousness is based on several underlying factors, including: (1) the scope and content of the prior art; (2) the differences between the claim and the prior art; (3) the level of ordinary skill in the art; and (4) any objective evidence of nonobviousness.

f. I understand that a dependent claim incorporates by reference all limitations of the claim from which it depends.

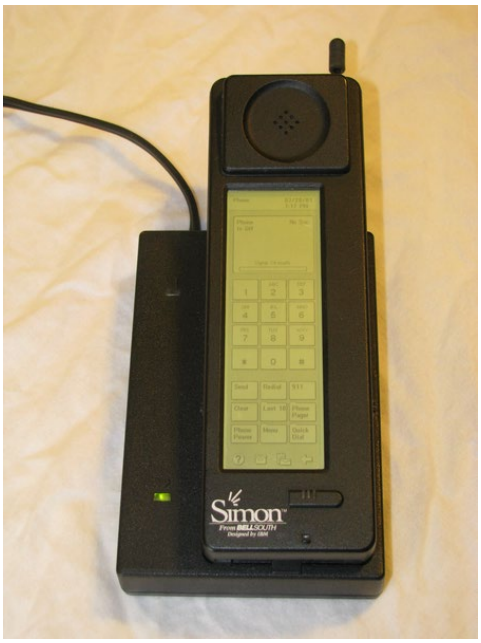
VI. STATE OF THE ART AT THE TIME OF THE PRIORITY DATE

34. I note that the '336 Patent was filed on February 2, 2012, the '801 Patent was filed on February 7, 2014, the '039 Patent was filed on September 11,

2014, the ’578 Patent was filed on July 7, 2014, and the ’348 Patent was filed on March 2, 2017. But it is my understanding from counsel that the important date for determining prior art for the purposes of these IPRs is the filing date of the parent provisional patent application that resulted in all of the Challenged Patents. I understand from counsel and from the face of each of the Challenged Patents that the date on which the provisional patent application was filed is June 18, 2002. *See*, *e.g.*, 246 IPR Ex. 1001 at p. 1. Therefore, I have been asked to explain the state of the relevant art in 2002.

35. Although it is sometimes easy to forget mobile phones before the availability of the types of smartphones that are ubiquitous today, the state of the art in 2002 was remarkably different than what people are used to today.

36. Although the first announcement of what could be called a smartphone was made by IBM in 1992, that device was nothing like the mobile devices people know today. That device, an improved version of which was marketed as the IBM Simon Personal Communicator in 1994, was a cellular telephone with the ability to send SMS messages and to operated included applications, such as a calendar, a notepad, and an address book. The device, however, did not have access to the internet. An image of the IBM Simon follows:



37. Mobile telephones with pre-programmed games—such as the Snakes game on Nokia's 6110—because available in 1997. But these devices were still rudimentary compared to the technology contemplated by the '336 Patent. An example of the games available at that time follows:

38. The first cellular phone with a front-facing camera was introduced in 1999 and the first with a back-facing camera was introduced in 2000. The devices, however, were still only able to send their photographs through the cellular network, without access to the internet.

39. In 1999, the Wireless Application Protocol ("WAP") was introduced. WAP was a technical standard for accessing information over a mobile cellular network. WAP allowed users with compatible devices to browse content such as news and sports scores provided by the mobile network operators. The information format was specifically designed for the limited capabilities of mobile devices at the time. *n* Ex. 2013. WAP content was accessed through a special browser, which was designed to read pages specifically for WAP content, rather than through HTML.

40. The 3G network was introduced in 2001. That advance marked the beginning of widespread use of the internet on mobile telephones. Live-assisted GPS was introduced by Qualcomm in 2004, thus significantly improving live location accuracy. The first iPhone was finally introduced in 2007.

41. Thus, at the time of the priority date claimed by the '336 Patent, 3G technology was still in its infancy. Mobile devices were able to access the internet, but their capabilities were greatly limited—in terms of screen capabilities, processing capabilities, user input capabilities (e.g. mouse, keyboard, etc.), navigational capabilities (e.g. website navigation, user interface navigation, network navigation, etc.), and data exchange capabilities.

42. Internet usage over mobile devices was essentially one-way. The internet pages that were accessible by mobile devices at that time were specially

modified mobile versions of the full webpage. These mobile versions were significantly parred down, including limited graphics and generally designed to push information to the user. These webpage versions were essentially one-way communications, they had limited, if any, bi-directional interaction capabilities such as those that mobile devices can access at the present time.

43. For example, Web 1.0, which was in use until approximately 2004, was primarily a one-way, static-content hypertext system. Using Web 1.0, websites were primarily designed to be to provide information to users without allowing users to engage or interact, beyond requesting content to be displayed in the browser by clicking on a hyperlink. (For a good overview of the differences between Web 1.0 and Web 2.0, *see* Ex. 2014.)

44. As I explain in more detail below, given the state of the art at the time of the initial filing, a POSITA would have understood a "mobile device" as described in the Challenged Patents to be a portable device with limited display space and limited navigational capabilities that connects to a mobile site and/or mobile channel via a wireless network.

45. I understand that Meta is asserting, based on a single reference in the '336 Patent, that "mobile device" would include a typical laptop computer. I disagree. At the time of the initial filing, a POSITA would not have understood a typical laptop to be a "mobile device" for at least the following reasons:

a. Laptops were increasingly powerful and matched the computational and storage capabilities of desktop computers.

b. The networking capabilities of laptops were equivalent to those of desktop computers, with a standard Ethernet port for a wired network connection.

c. Laptops with up to 17-inch screens were common, and screens of those sizes are comparable to computer monitors of the day.

d. While laptops did have reasonable battery life, laptop usage patterns were, and remain, such that most people tend to keep them plugged into a wall outlet, which would "fulfill the role of a desktop PC or Mac." *See* Ex. 2015.

VII. SUMMARY OF THE CHALLENGED PATENTS

46. Each of the Challenged Patents traces its lineage to provisional patent application 60/389,430 filed on June 18, 2002 on behalf of inventors David Walker Harper, Jason James Sabella, and William Henry Munch. *See*, *e.g.*, '336 Patent (246 IPR Ex. 1001). Each of the Challenged Patents is titled "Method, Apparatus and System for Management of Information Content for Enhanced Accessibility Over Wireless Communication Networks," and all share a common specification, which generally discloses a novel and non-obvious method, apparatus, and system in which, generally speaking, content is managed by providing a first web-based interface accessible to a first user, where the first web-based interface is configured to permit the first user to designate at least one data source external to the interface, maintaining persistent information content on behalf of the first user including content obtained from the designated data source, and generating a

second web-based interface, wherein access to the persistent information content is provided to additional users via the second web-based interface in a manner controlled by the first user via the first web-based interface to facilitate interaction between the first and additional users. '336 Patent at Abstract.[3]

A. Common Specification

47. The Challenged Patents share a common specification, which discloses a collaborative web-based system. The specification discloses that the state of the art at the time was such that "it is generally not possible for different mobile device users to link to and take further action on a persistent version of a given set of shared information content." '336 Patent at 1:59-61. To overcome this failure of the prior art, the specification emphasizes the two-way nature of the invention. For example:

- "to provide a mechanism that facilitates uniform, ***action-driven content access and associated user interaction*** via wireless networks." *Id.* at 1:62-64 (emphasis added)
- "The system is configured to operate independently of the user device operating system or other user device configuration parameters, such that a given user may ***author, create, publish, send, convey, share, receive, respond to, subscribe to, collaborate with, track, transact, maintain and manage*** personalized messaging content from any type of user device running any operating system." *Id.* at 18:39-45 (emphasis added).

[3] While I provide citations to the '336 Patent, the other four Challenged Patents have equivalent passages.

B. The ’336 Patent Claims

48. Independent Claim 1 of the ’336 Patent is representative and recites:

1. A method for managing information content in a network-based communication system, the method comprising the steps of:

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

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

wherein the given mobile information channel supports messaging between the first user and the one or more additional users over a wireless network; and

wherein the mobile information channel is configured to permit the first user to send messaging content to the one or more additional users and to receive messaging content from the one or more additional users.

C. The ’801 Patent Claims

49. Independent Claim 1 of the '801 Patent is representative and recites:

1. A method comprising:

providing an interface permitting a first user to control activation of a mobile information channel through which the first user can share access to content with a plurality of additional users;

activating the mobile information channel responsive to input received from the first user via the interface;

inserting content provided by the first user into the mobile information channel;

receiving additional content relating to the mobile information channel from one or more of said additional users via one or more respective mobile

devices associated with at least one wireless network;

inserting at least a portion of the additional content into the mobile information channel; and

integrating into the mobile information channel information associated with at least one wireless networking functionality of said at least one wireless network.

D. The ’039 Patent Claims

50. Independent Claim 19 of the ’039 Patent is representative and 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.

E. The ’578 Patent Claims

51. Independent Claim 1 of the ’578 Patent is representative and recites:

1. A method comprising:

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

integrating the at least one content item and information associated with at least one wireless networking functionality of the mobile device to generate at least one integrated content item; and

inserting the at least one integrated content item into the application-based

information channel, the application-based information channel providing a second interface wherein two or more users share access to a plurality of content items including the at least one integrated content item.

F. The ’348 Patent Claims

52. Independent Claim 13 of the '348 Patent is representative and recites:

13. A method comprising:

receiving first device-captured data from a first mobile device over at least one network;

receiving second device-captured data from a second mobile device over said at least one network; and

integrating 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.

VIII. PERSON OF ORDINARY SKILL IN THE ART

53. It is my understanding Meta suggests that a POSITA at the time of the invention was someone who would have had a Bachelor’s degree in computer engineering, computer science, or a similar discipline, and two years of professional experience in the fields of distributed systems, embedded systems, mobile systems, or related fields. A POSITA would have at least a general knowledge of web-based applications and mobile applications. An advanced degree in these fields may be substituted for professional experience and vice-versa.

54. I determined the level of skill of a person of ordinary skill in the art by

reviewing the Challenged Patents and considering the type of problems encountered in the art. I was given the Petitioner's definition of a POSITA, and I agree with Petitioner's definition.

55. When considering the alleged prior art, I thought about the students and colleagues I work with that have the skills of a person having ordinary skill in the art and tried to put myself in their shoes.

IX. CLAIM CONSTRUCTION

56. I understand that, in an IPR, claim terms are interpreted in light of the specification and prosecution history, as interpreted by a POSITA. I also understand that claim terms are construed in accordance with their ordinary and customary meaning as would have been understood by a POSITA at the time of the invention. I understand from counsel that the parties have submitted claim construction briefing in the parallel district court litigation. A copy of that briefing was provided to me by counsel. I also understand that the courts have not yet ruled on claim construction. Finally, I understand from counsel the Board also has not made any express claim construction rulings.

57. In my analysis, I looked at the terms "mobile device," "mobile information channel," "web-based shared information channel," "application-based information channel," "wireless network," and "wireless network functionality of

the mobile device" in the claim language, in accordance with the ordinary and customary meaning as would have been understood by a POSITA in light of the prosecution history and the specification. I also looked at outside sources available at the time.

58. In my opinion, the Patent Owner's prior claim construction briefing is correct that the specifications of the Challenged Patents use these terms in a manner consistent with the plain and ordinary meaning a POSITA would have understood those terms to have in 2002.

59. If the Board requires the plain and ordinary meaning to be further explained, then it is my opinion that, as explained in more detail below, in 2002, a POSITA would have understood the term "mobile device" to refer to "a portable device with limited display space and limited navigational capabilities that connects to a mobile site and/or mobile channel via a wireless network." In addition, a POSITA would have understood "mobile information channel" as used in the Challenged Patents to refer to "a component of a mobile site configured to permit a wide variety of mobile devices to send and receive content over a wireless network" and "application-based information channel" to refer to "a computer program-based medium for transferring information," and "web-based shared information channel" to refer to "medium for transferring information accessible to more than one user via the web." Finally, a POSITA would have understood

"wireless network" to mean "a network separate from the internet that facilitates connection to the internet by a mobile device," and "wireless networking functionalities of the mobile device" to mean "functionality implementable by the mobile device via the wireless network independent of the Internet."

A. Mobile Device

60. I understand from counsel that terms are presumed to have their ordinary and customary meaning unless a different definition is clearly provided in the patent's specification. I also understand that if the specification is ambiguous about whether the patent is using claim terms inconsistent with their ordinary meaning, then the ordinary meaning will apply.

61. The specifications of the Challenged Patents do not clearly provide a definition of "mobile device" differing from the plain and ordinary meaning. The specification describes "mobile device" by stating: "[t]he term 'mobile device' as used herein is intended to include, without limitation, any type of portable information processing device capable of being configured for communication over a network." '578 Patent 4:45:48. This statement does not vary the ordinary and customary meaning of "mobile device." A POSITA at the time of invention would understand the plain and ordinary meaning of "mobile device" as a handheld (i.e., "portable") device, such as a PDA or a mobile telephone. There is a list of mobile devices in the patent that includes laptops. This would not have

changed a POSITA's understanding of "mobile device" at the time. At that time, laptops were bulky and heavy, typically weighing approximately 6 pounds and having a battery life of 4 hours or less. Such a bulky, heavy device would not have been understood to be a "mobile device" at the time of the invention. At best, the inclusion of a laptop in the list of examples of mobile devices in the patent specification either refers to a subset of laptops with limited display space and limited navigational capabilities and that connected to a mobile site and/or mobile channel via a wireless network—these laptops generally ran limited operating systems such as Windows CE, or it raises an ambiguity regarding the patent's meaning for "mobile device." Because of this, it is my opinion that "mobile device" should be given its plain and ordinary meaning at the time of filing, which a POSITA would understand as a portable handheld device such as a mobile telephone or PDA, not a conventional laptop computer.

62. I understand from counsel that claim terms should be construed by taking the surrounding claim language into consideration so that words in a claim are not rendered superfluous. At the time of the invention, the inventive aspect of the Challenged Patents was the ability to activate the mobile information channels on a mobile device and interact with those mobile information channels bi-directionally on a mobile device, where a mobile device is understood as a portable handheld device, which were fairly new and novel technology at the time. The 249

IPR Petition states that there was a "growing popularity of mobile computing and mobile devices" at the time of filing. 249 IPR Pet. at 21. This statement must be referring to a portable handheld device, not conventional laptop computers, because conventional laptop computers were not new in 2002. In my opinion, including a conventional laptop in the definition of "mobile device" would ignore the problem the patent was meant to fix and would render the rest of the claim superfluous.

63. Furthermore, if a POSITA happened to review the Neibauer reference, he would not be motivated to combine it with the other references to arrive at the invention, as suggested by Meta. That is because Neibauer teaches away from a "mobile device" definition including a conventional laptop. For example, Neibauer lists "Pagers, Cell phones, Web phones, Personal digital assistants (PDAs)" as mobile devices. 246 IPR Ex. 1003 at 111. That is consistent with the plain and ordinary meaning of the term at the time. This is further shown by the Yahoo! applications Neibauer states can be used on mobile devices: "Mobile Alerts, Yahoo! On Your PDA, and Yahoo! On Your Phone." 246 IPR Ex. 1003 at 112. These applications fall into two categories: mobile alerts, which "Yahoo! automatically sends to your mobile device"; and applications designed specifically for PDAs and mobile phones. *Id.* at 112. None of these discussions in Neibauer suggests a conventional laptop. Thus, if anything, Neibauer teaches away from the

combination proposed by Petitioner.

64. Finally, with regard to the '578 Patent, the '578 Patent claims include: "providing a first interface permitting designation of at least one content item, via a mobile device, for insertion into an application-based information channel[.]" '578 Patent 19:28:30. One could have accessed an "application-based information channel" on a laptop at the time of filing, for example typing in m.facebook.com (the mobile interface) instead of just facebook.com (the desktop interface). This would pull up a mobile interface with application-based information channels optimized for a mobile device, but it does not mean that the conventional laptop used to pull up an application-based information channel somehow *becomes* a mobile device. The Specification of the '578 Patent states:

> Examples of mobile devices **15** utilizable in system **10** of FIG. 1A include a mobile telephone, a personal digital assistant (PDA), a palmtop computer, a hand-held computer, a laptop computer, a tablet computer

'578 Patent 4:36:42. A POSITA would know that a conventional laptop is a desktop platform but is still *capable of displaying* an interface for activating an application-based information channel. It is therefore my opinion that a laptop is a device that is *utilizable* to pull up the interface of claim 1, said interface allowing the user to activate the application-based information channel, as required in the specification and claims, but the laptop is not *itself* a "mobile device."

B. Mobile Information Channel

65. The Challenged Patents explain that the invention improves on the existing technology, in part, due to its ability to

> operate independently of the user device operating system or other user device configuration parameters, such that a given user may author, create, publish, send, convey, share, receive, respond to, subscribe to, collaborate with, track, transact, maintain and manage personalized messaging content from ***any type of user device*** running any operating system."

'336 Patent 18:39-45 (emphasis added).

66. The specification explains that a wide variety of devices can use the technology:

> The mobile devices 15 can collectively comprise a wide variety of different devices configurable for communication over the network 12. The term "mobile device" as used herein is intended to include, without limitation, any type of portable information processing device capable of being configured for communication over a network. Examples of mobile devices 15 utilizable in system 10 of FIG. 1A include a mobile telephone, a personal digital assistant (PDA), a palmtop computer, a hand-held computer, a laptop computer, a tablet computer, a global positioning system (GPS) receiver or other GPS-based navigational device, an MP3 player or other type of audio player, a pager, a watch or other timepiece, a camera, a portable game player, etc.

'336 Patent 4:28-40.

67. According to Claim 1 of the '336 Patent, the "mobile information channel" both "supports messaging between the first user and the one or more additional users over a wireless network;" and "is configured to permit the first

user to send messaging content to the one or more additional users and to receive messaging content from the one or more additional users."

68. As I noted above, the "mobile information channel" must enable messaging between the "wide variety" of mobile devices disclosed. Such "mobile devices" include not only "a laptop computer" but also "a mobile telephone" and "a personal digital assistant (PDA)" (among other devices). '336 Patent 4:28-40.

69. This construction is reinforced throughout the Challenged Patents. For example, the specification provides the example of using the invention through a "web-enabled mobile telephone":

> FIG. 18 shows an example mobile device 15-1 suitable for use in the system of FIG. 1A. The mobile device 15-1 in this example is in the form of a web-enabled mobile telephone, but as indicated previously herein, the invention does not require the use of any particular type or configuration of mobile device.

'336 Patent 14:54-60 (emphasis added); *see also* '336 Patent FIG. 18

70. Petitioner argues that "the word 'mobile' in 'mobile information channel[]'… adds nothing of significance[.]" 246 IPR Pet. at 21. Then, based on that incorrect premise, Petitioner argues that because a "conventional laptop" could "run web browser software and visit web pages" like the "the Yahoo! website, including the clubs feature" discussed in Neibauer Chapter 21, this disclosure teaches Claim 1's "mobile information channel." 246 IPR Pet. at 21. I disagree.

71. As I opined above, a "conventional laptop" accessing "the Yahoo!

website" does *not* teach the claimed "mobile information channel," which enables messaging between a "wide variety" of mobile devices, including laptops and other, less-sophisticated devices.

C. Application-Based Information Channel

72. I understand from counsel that the parties have agreed that "application-based information channel" should be construed to as a "computer program-based medium for transferring information." Because of this mutual agreement, I am not offering any additional opinion regarding the construction of this term. I understand, however, that Meta has asserted additional grounds based on Meta's proposed construction of this term in the district court litigation, but that Meta explained that the Board need not consider those additional arguments if the Board finds that it is unnecessary to construe this term. Therefore, though I am not currently opining on the meaning of this term, I reserve the right to do so if the parties' agreement regarding construction of this term changes.

D. Web-Based Shared Information Channel

73. "Web-based information channel" should be construed to as a "medium for transferring information accessible to more than one user via the web," which I understand from counsel is consistent with the proposed construction of this term in the pending litigation. This construction is identical to Meta's proposed construction in the pending litigation, as I understand from

counsel, except the last word is "web" instead of "internet." It is my opinion that this change is not a material change in the scope of the definition. Because of the agreement regarding the definition of this term, I am not offering any additional opinion regarding the construction of this term. I understand, however, that Meta has asserted additional grounds based on Meta's proposed construction of this term in the district court litigation, but that Meta explained that the Board need not consider those additional arguments if the Board finds that it is unnecessary to construe this term. Therefore, I reserve the right to supplement my opinion on this term if the parties' agreement regarding construction of this term changes.

E. Wireless Network

74. In my opinion, the term "wireless network" should be construed according to both its plain and ordinary meaning and the intrinsic record to mean "a network separate from the internet that facilitates connection to the internet by a mobile device."

75. In the specification the term "wireless network" refers to a network that is "coupled to the Internet 14, a set of mobile devices 15, a set of servers 16 and a set of user terminals 18." *Id.*, 3:42-46. Additionally, FIG. 1A shows that the mobile devices 15 connect to the wireless network 12, which is separate from the Internet 14.

76. This construction would have been understood by a POSITA at the

time of the invention. At that time, wireless networks were described as providing a wireless connection between devices to transmit data and enable the devices to access the Internet. *See*, *e.g.*, Ex. 2012.

F. Wireless Networking Functionalities of the Mobile Device

77. In my opinion, the term "wireless networking functionalities of the mobile device" should be construed according both to its plain and ordinary meaning and the intrinsic record to mean "functionality implementable by the mobile device via the wireless network independent of the Internet."

78. In the specification the term "wireless networking functionalities" is disclosed to include actions implementable over a wireless network," independent of Internet. *Id.*, 5:51-65. In my opinion, these are actions that are capable of being performed over the wireless network, independent of the Internet. The specification provides example actions as:

> 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.

Id. In another example, these wireless networking functionalities may also be restricted to subscribers of the wireless network provider or based on purchase of certain goods or services from the wireless network provider. *Id.*, 6:4-15.

X. INTERPRETATION OF THE PATENTS

79. Beyond construing individual terms, it is important to understand how the teachings of these patents would have been understood by a POSITA in 2002 after taking into consideration the entirety of the specification.

A. Mobile Device in the Context of Various Channels Recited in Independent Claims

80. The claim limitations of each of the Challenged Patents requires an "information channel" configured for mobile device use and/or a "mobile device." Some example limitations from each Challenged Patent are reproduced below:

- Claim 1 of '336 Patent recites, for example,
  - "wherein the given *mobile information channel supports messaging* between the first user and the one or more additional users over a wireless network"; and
  - "wherein the mobile information channel is configured to permit the first user to send messaging content to the one or more additional users and to receive messaging content from the one or more additional users"

- Claim 1 of '801 Patent recites, for example,
  - "*receiving additional content* relating to the mobile information channel from one or more of said additional users *via one or more respective mobile devices* associated with at least one wireless network"; and
  - "inserting at least a portion of the additional content into the mobile information channel"

- Claim 1 of '039 Patent recites, for example,
  - "*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"; and
    - "*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*"

- Claim 1 of '578 Patent recites, for example,
    - "providing a first interface permitting *designation of at least one content item, via a mobile device, for insertion into an application-based information channel*, the at least one content item comprising *media data captured by the mobile device*"
    - "*integrating the at least one content item* and information associated with at least one wireless networking functionality of the mobile device to generate at least one integrated content item;" and
    - "*inserting the at least one integrated content item into the application-based information channel*, the application-based information channel providing a second interface wherein two or more users share access to a plurality of content items including the at least one integrated content item."

- Claim 1 of '348 Patent recites, for example,
    - "the processing element being configured: to receive *first device-captured data from a first one of the mobile devices* via the network interface"; and
    - "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"

81. Through these limitations, each of the Challenged Patents require performing some upload operation in a mobile context: messaging via a mobile information in the '336 Patent; receiving content from a mobile device in the '801, '039, and '348 Patents; and designation of a content item for insertion via the

mobile device in the ’578 Patent. Therefore, I am of the opinion that the mobile device, the mobile information channel, the application-based information channel, and the web-based shared information channel should be interpreted with respect to the functionality of the mobile device sending data to a channel that is designed for access by mobile devices.

82. With this in mind, the term, “mobile device” should also read in the context of the problem identified by the Challenged Patents of “creating, publishing, distributing or otherwise managing information content so as to provide optimal presentation consistent with the *limited display space and navigational capabilities of typical mobile devices*.” Indeed, the Challenged Patents distinguish the inventions from conventional techniques, such as web site authoring tools, as being unable to meet the needs of managing information content presentation for mobile devices (“However, conventional techniques have been unable to meet this need in a satisfactory manner. By way of example, *conventional techniques such as web site authoring tools and web logging (“blogging) are not optimized for use in the generation of information content for shared access via mobile devices*.” ’578 Patent 1:42-2:2.).

83. Accordingly, “mobile,” when used in the context of “mobile information channel” or “mobile device(s),” involves facilitating actions specifically for devices having mobile challenges, such as having limited display

space and/or limited navigational capabilities. As mentioned above, each of claims of the Challenged Patents explicitly include a form of upload operation performed by such mobile devices. Indeed, a POSITA at the time of this invention (circa 2002), would interpret the channels in view of the specification and the current state of the art as a channel for mobile content provision and distinct from channels or websites that are designed for personal computers (PCs), such as desktop computers and circa 2002 high-performance laptops.

84. In 2002, some laptops were rudimentary, having similar constraints as other "typical mobile devices," such as having limited display and navigational capabilities. For example, in the context of the '039 Patent, web experiences of mobile devices clearly diverge from conventional techniques provided by computers, such as fully-capable PCs and/or laptops. *See generally* Ex. 2020 (describing features and drawbacks of "handheld PC" laptops compared to "typical notebook PC" laptops). While the specification lists "laptop computer" in a laundry list of items that may be included as "mobile devices," a POSITA would understand these laptops to be a subset of laptops having limited capabilities, such as a laptop running a mobile operating system (e.g., Windows CE) such as IBM's WorkPad z50, HP's Jornada 820, or LG Electronics Phenom. *See*, *e.g.*, *id.*; Ex. 2021; Ex. 2022; Ex. 2023. As such, to the extent that laptops are included as mobile devices, a POSITA would understand these laptops to be a subset of

laptops having limited capabilities, as described throughout the specification, thus using mobile sites to facilitate network information sharing. *Id.* A POSITA would not understand a mobile device to include the full capabilities of laptops that simply use conventional sites for information sharing. *Id.* This is especially true in the context of the Challenged Patents, which repeatedly demonstrate mobile device connectivity through mobile sites, not conventional sites. *Id.* Thus, to the extent that a laptop is considered a mobile device, a POSITA would understand such laptops to refer to a subset of laptops having similar constraints as other "typical mobile devices" that use mobile-specific affordances (e.g., specific channels) to perform activities (e.g., upload operations) despite their limited capabilities.

85. Indeed, the Challenged Patents' reference to "Mobile Site List" 322 in addition to "M-Channels List" 324 in FIG. 3 clearly indicates that the mobile device is accessing a mobile version (e.g., designed for limited display space) of a website, as opposed to a web version (e.g., designed for 13-inch monitor and larger) of the website. In this regard, in the context of the specification, any laptop device interpreted as being a "mobile device" should be one that benefits from accessing mobile sites or channels configured to mitigate mobile device constraints.

B. Understanding of Wireless Network Functionality

86. Each of the '801, '039, and '578 Patents (Wireless Networking

Functionality ("WNF") Patents) include recitations referencing "at least one wireless networking functionality." For instance, example recitations from each of the WNF Patents is provided below:

- Claim 1 of '801 Patent recites, for example,
    - "integrating into the mobile information channel *information associated with at least one wireless networking functionality* of said at least one wireless network"
- Claim 1 of '039 Patent recites, for example,
    - "integrating the content and the *information associated with said at least one wireless networking functionality* of the mobile device"
- Claim 1 of '578 Patent recites, for example,
    - "integrating the at least one content item and *information associated with at least one wireless networking functionality* of the mobile device to generate at least one integrated content item"

87. FIG. 1 and its related description help understand the term "wireless network" in the context of the specification. As shown in FIG. 1, the "wireless network" is a network connected to ***but different than the Internet***. More specifically, the specification explains that "mobile devices 15-1…15-n are coupled to wireless network 12, which is coupled to Internet 14." '578 Patent, 3:61-65.

88. Referring now to information associated with a wireless network functionality, the specification provides examples of this information, such as information specifying a messaging action implementable over the wireless

network, information specifying a collaboration action ***implementable over the wireless network***, and information specifying location-based services ***implementable over the wireless network***. '578 Patent, 6:12-19. Moreover, the specification clearly notes that one type of wireless networking functionality includes providing access to the Internet. '578 Patent, 1:36-41. As such, a POSITA would clearly recognize that information of the wireless networking functionalities, as claimed in the '801, '039, and '578 Patents, corresponds to information related to capabilities provide by the wireless network 12, including ***providing access to***, but ***not*** the Internet 14 itself.

89. Indeed, at the time of the invention, wireless networking functionalities were distinct from Internet functionalities in a variety of ways. As described in the patent, these functionalities pertain to "action-driven content access and associated user interaction via wireless networks." '578 Patent, 1:65-66. This interaction is accomplished via a mobile information channel through which [a] user can share access to content with a plurality of additional users. '578 Patent, 2:17-19. That information can be obtained via types of wireless networking functionality distinguished from the Internet, such as messaging, distributed collaboration, and location-based services. '578 Patent, 1:39-41. By contrast, the Internet functionalities built on top of the TCP/IP protocol residing at OSI standard network architecture's ***Transport Layer*** and is generally limited to ***enabling the***

Application Layer functionalities such as those described in the patented technology: Web (primarily HTTP protocol), email (primarily SMTP protocol), messaging facilities (e.g., SMS, MMS protocols), online collaboration (e.g., VoIP).[4]

7	Application Layer	Human-computer interaction layer, where applications can access the network services
6	Presentation Layer	Ensures that data is in a usable format and is where data encryption occurs
5	Session Layer	Maintains connections and is responsible for controlling ports and sessions
4	Transport Layer	Transmits data using transmission protocols including TCP and UDP
3	Network Layer	Decides which physical path the data will take
2	Data Link Layer	Defines the format of data on the network
1	Physical Layer	Transmits raw bit stream over the physical medium

90. Accordingly, in order to teach or suggest "information associated with at least one wireless functionality," a prior art reference must disclose a capability that is capable of being performed via the wireless network—not the Internet.

[4] These protocols do have elements implemented at lower levels (e.g., transport layer functionality), but the actual capabilities a user cares about are application-layer capabilities.

XI. PETITIONER'S PROPOSED GROUNDS DO NOT SHOW THE CHALLENGED CLAIMS OF THE CHALLENGED PATENTS ARE OBVIOUS

91. I have reviewed each of the prior art references asserted by Meta and compared them to the Challenged Claims. In my opinion, the prior art combinations Meta asserts would not have rendered the Challenged Claims of the Challenged Patents obvious to a POSITA in 2002.

A. Asserted Prior Art

92. Meta asserts nine pieces of prior art in various combinations. But the primary prior art references asserted are: Neibauer (246 IPR Ex. 1003), Miller (246 IPR Ex. 1004), Cheng (246 IPR Ex. 1005), Ausems (246 IPR Ex. 1006), Squibbs (247 IPR Ex. 1011), and McElfresh (250 IPR Ex. 1014). These references are described in more detail below.

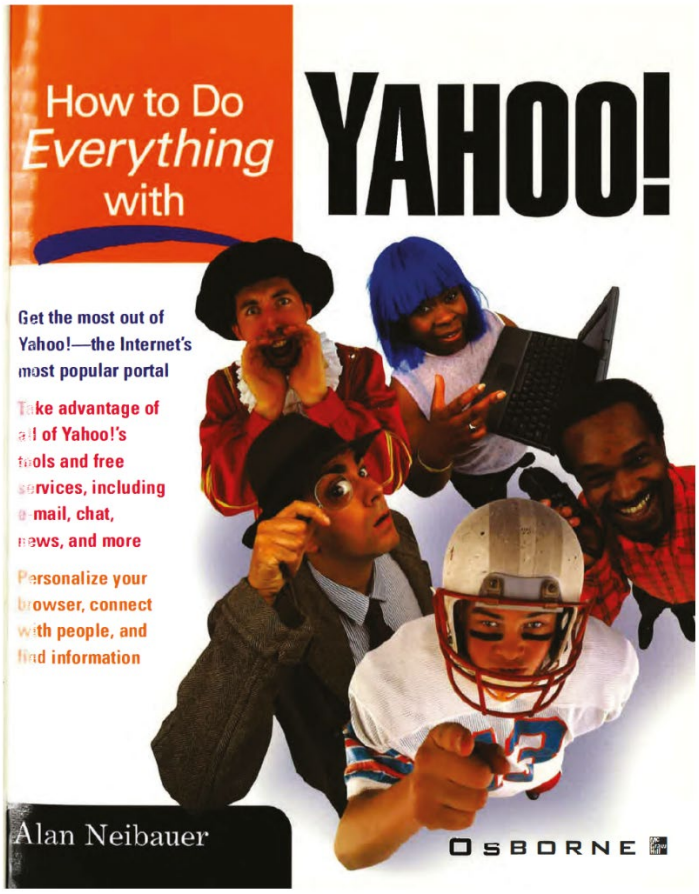
1. Neibauer (246 IPR Ex. 1003)

93. Petitioner's primary reference is the 2000 book entitled "How to Do Everything with Yahoo!," by Alan Neibauer. *See* 246 IPR Ex. 1003. This reference describes Yahoo! as "one terrific place to visit the internet" and as "a powerful place to search for information of all types." *See id* at p.17.[5] In my opinion, these statements clearly show this reference to be closer to the now popular "For

[5] Please note that I refer to the page numbers of Petitioner's Exhibit 1003, not the reference's page numbers.

Dummies" genre of book, rather a publication that would have been relied on by a POSITA. Mr. Neibauer goes on to explain, for the cost of "Nada. Not a dime." the Yahoo! Internet portal is a place that offers users services, such as access to the Internet, and is a repository of and a conduit of user content and Yahoo! services for registered users. *See id.* I understand from counsel that this reference was considered by the Examiner in granting the claims of the Challenged Patents, but that Petitioner is continuing to assert it as the primary reference in these IPRs.

94. As I discuss in more detail in Section XI(B) below, in my opinion a POSITA at the time would not have considered Neibauer to be a serious reference. Essentially, this reference is an early version of what is now the well-known "For Dummies" genre. As made clear by the even by the cover, is targeted to laypeople with an introductory skill level who are just learning to use Yahoo! in the early days of the Internet—not to engineers or computer scientists working in software development.



See id. at p. 2. Among other things, Neibauer explains such simple concepts as: how to "[g]et free e-mail" (chapter 2); "[m]anage your calendar" (chapter 4); and "[s]earch the Internet" (chapter 8). *See id.* at p.3. Neibauer was neither an engineer nor a computer scientist and the reference does not discuss software development. *Id.* at pp. 3, 6. In my opinion, no computer scientist or electrical engineer would this type of reference when developing software to solve the issues addressed by the Challenged Patents' disclosures.

95. Meta focuses primarily on two chapters from Neibauer: (i) Chapter 7 entitled "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"); and (ii) Chapter 21 entitled "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! users.

96. In my opinion, Dr. Madisetti takes an overly simplistic approach to Neibauer's disclosures —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. But I disagree. These disclosures are not about how to adapt mobile technology to use Yahoo! services. Rather, Neibauer refers to the service itself as "Yahoo! Mobile" and discusses 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 is Mobile Alerts, which periodically sent short alphanumeric messages, such as stock prices and weather reports, to a cell phone or pager. Neibauer at 112-113. Petitioner argues that 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. Pet. p.10. Neibauer describes accessing the Yahoo! Clubs feature by accessing the website

(e.g., http://clubs.yahoo.com/) to open a webpage that includes a list of clubs. A user can then navigate (e.g., through clicks of a mouse) the list to eventually reach at a website that allows users to add photos and descriptions of the photos through the website as depicted in FIG. 21-10 reproduced below. Neibauer, p.157-162.

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

Category: James Bond Serie
Club Type: Liste

Blueraja's BOND GIRL Album

Back To: Album List

Created by blueraja3 on 22-Nov-1999

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.162. Thus, Yahoo! Clubs was a *website-enabled* feature.

97. Petitioner relies on a separate section of Neibauer to illustrate that Neibauer provides the ability to access Yahoo! Services via mobile devices, such as cell phones. Pet. p.10. But Neibauer cautions the user that, to perform any operations through Yahoo! Mobile, the mobile device must be a "PDA that uses

Palm OS Windows CE, a modem, and a Web browser." *Id*. This use of a "mobile device" in Neibauer is consistent with the Patent Owner's claim construction discussed above. In addition, the Yahoo! Mobile feature relies on the mobile device's connection to the Internet to enable it to present notifications (e.g., alerts, mail, meetings) provided from web-based sources. *See id*. (requirement of Web browser). Put another way, Yahoo! Mobile only provides the ability to *view* information that has been received via the Internet, as opposed to being received from a mobile device.

98. When I consider the Yahoo! Clubs feature in view of the limitations of the Yahoo! Mobile feature, it becomes clear that, while Yahoo! Mobile—at best—allows mobile device users to receive data from the Yahoo! Clubs website, it lacks the ability to provide content to the Yahoo! Clubs website. Neibauer *never* mentions providing a user the ability to add content, much less photos and descriptions of photos, *to* the Yahoo! Clubs website *from* a mobile device. In my opinion, given the limited display space and navigational capabilities of typical mobile devices at the time, it would have been unreasonable for a POSITA to think the website depicted in FIG. 21-10 would be either presentable on a mobile device or capable of performing the functions related to inserting content into the Yahoo! Clubs website.

99. I also note that Yahoo! Clubs is a website that allows users to perform

operations through the Internet and a desktop browser. The photos and descriptions added to the Yahoo! Clubs website were provided through an Internet-based platform designed to be accessed by personal computers (PCs)—not mobile devices. Neither Yahoo! Clubs nor Yahoo! Mobile permit receiving content from a mobile device for integration into a channel facilitating interaction between the mobile device user and other users. I understand that the Board asserted that it would have been obvious to a POSITA to use the features of Yahoo! Club with a mobile device, such as a laptop computer. But as I opined in the claim construction section above, the inclusion of a laptop device in the term "mobile device" is inconsistent with how the term is used in the specification and the prior art references. Because (i) the information channel must facilitate interaction with a mobile device user, and (ii) a laptop computer is inconsistent with the term "mobile device," it is my opinion that Neibauer fails to teach or suggest an information channel permitting interaction between a user of a mobile device and other users and sending content form a mobile device for insertion/integration into the information channel.

100. Moreover, because Yahoo! Clubs is only implementable via the Internet as a website, the Yahoo! Clubs users' ability to add photos and descriptions corresponds to a functionality implementable via the Internet—as opposed to being implementable via a wireless network separate from the Internet.

Neibauer never provides the ability to send content and information associated with a *wireless networking functionality* of the mobile device for insertion into an information channel permitting interaction between a user of a mobile device and other users.

101. While Neibauer discloses that "Yahoo! To Go" could be used to configure PDAs to access simplified versions of certain Yahoo! web pages, *id.* at 116-117, the Yahoo! screenshots provided show that the user-interactive features discussed in Chapter 21 were not available for the types of devices described in Chapter 7. *See*, *e.g.*, id. at 118-119. For example, Figure 7-15 shows a series of checkboxes a user could select to configure which of the PDA-capable Yahoo! services would be available on their PDA:

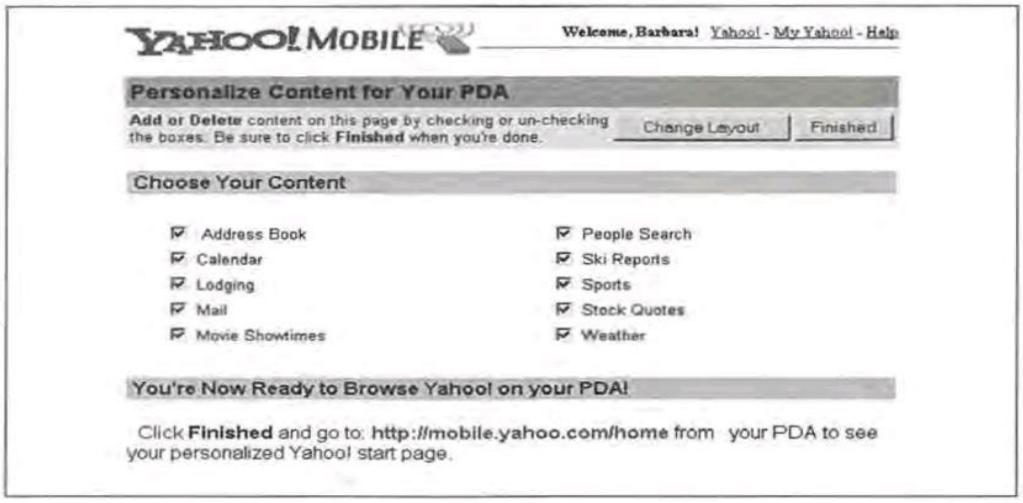


FIGURE 7-15 Adding content to your PDA Yahoo! menu

102. The features described in Chapter 7 provided only limited functionality for a mobile device. For example, the briefcase function, which

allows remote access to files, only provided 10 MB of free storage. *See*, *e.g.*, Neibauer at 101.

103. In addition, Yahoo! To Go and Yahoo! Mobile only supported a limited number of device types.

My PDA

The Yahoo! On Your PDA option on Yahoo! To Go lets you set up to browse Yahoo! using a custom menu from the Web browser on your PDA. Clicking My PDA lets you configure Yahoo! for your PDA and see some sample PDA pages so you can get an idea how you can use Yahoo! to your best advantage, as shown here.

Note *To set up Yahoo! on your PDA, you'll need a PDA with Palm Organizer, a modem, and a browser.*

To set up Yahoo! for your PDA, follow these steps:

1. Click My PDA and then click Continue to display the options shown in Figure 7-14.
2. Enter a device name.
3. Select the device type: Palm III, Palm IV, Palm VII, Visor, pdQ Smartphone, Windows CE, Apple Newton, or Other.
4. Select the browser type: HandWeb, ProxiWeb, pdQ Browser, Avantgo, Qbrowser, or Other.
5. Select the modem type: Minstrel, Palm (clip-on), GSM Phone, or Other.
6. Select either Monochrome or Color.
7. Click Submit.

Neibauer at 116. As shown, only a few device types were supported. These devices had very limited functionality compared to more recent devices. These devices' support for displaying web pages and for supported Yahoo! features was highly limited. *Id.* Finally, these devices had hardware constraints and lacked functionalities, such as GPS, that would have been needed to support Meta's

combinations.

104. In addition, I note that Neibauer Figure 7-15 shown above shows that none of Yahoo! Clubs, Message Boards, or Photo Albums were available on a PDA through Yahoo! Mobile and Yahoo! To Go. That would have been because media-rich, user-interactive features were outside the capabilities of the mobile device features available at the time. The various Clubs pages shown illustrate the resource-intensive nature of Clubs.

105. For example, Neibauer shows the following main Club page:

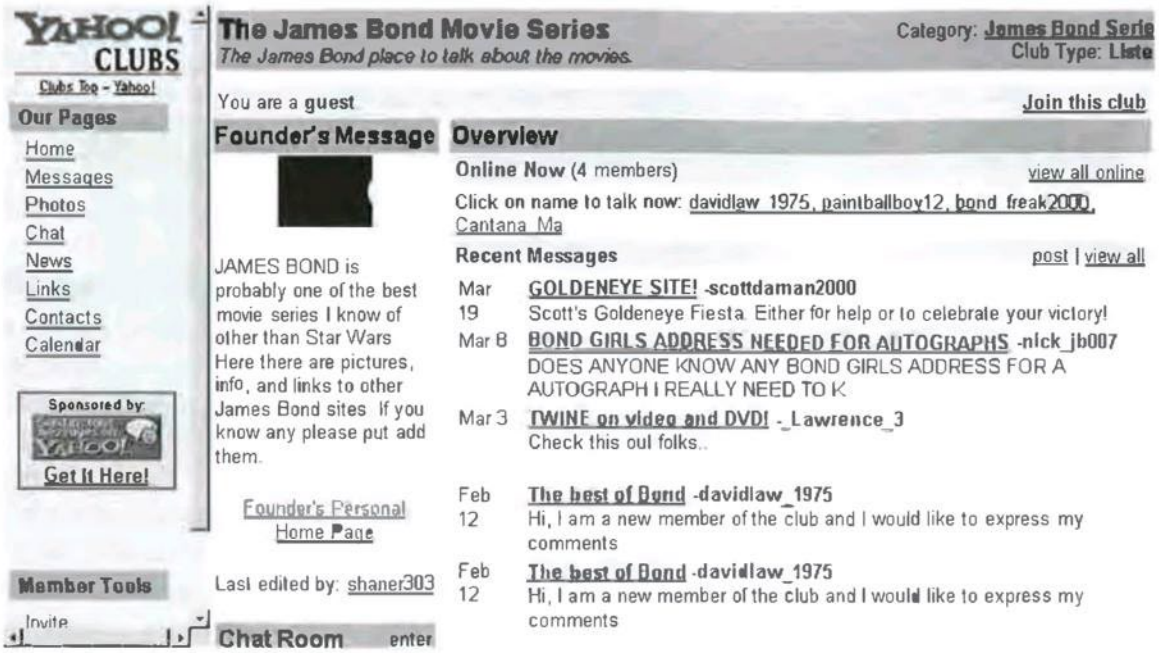


FIGURE 21-8 Club page

Neibauer at p. 159. Neibauer explains that this 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 157.

106. Meta also relies on the club photo album, which allows a user to browse and view existing photos and upload new photos, as shown:

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 at p. 162.

107. Based on comparing the reference's screenshots showing these resource-intensive interfaces with the information displayable on a PDA available at the time, I am of the opinion that a service such as Clubs would not have been usable on a mobile device—even assuming the Clubs web pages could have been timely received and stored in the device's memory. This is supported by the fact that Neibauer's screenshots of Yahoo! Mobile and Yahoo! To Go services on a

PDA illustrate text-only interfaces—without images. For example:

Neibauer at 171.

108. Meta relies heavily on Yahoo! Clubs allowing users with mobile devices to share photos (for example, receiving and viewing the main club picture uploaded by the founder) and upload additional pictures to club photo albums by mobile device users. *See*, *e.g.*, Neibauer Fig. 21-8 (shown below "Founder's Message"), Fig. 21-10 (showing "Add Photo" button). But no similar functionality or device capability is described in Chapter 7. Therefore, any support for Yahoo! Clubs that a POSITA would have provided on a mobile device would have the highly simplified interface consistent with what is shown for basic web features like stock quotes—assuming a POSITA would have been motivated to make such a combination at all, which I am of the opinion they would not have been. *Id.* Thus, a POSITA would not have expected such an interface to include support for multimedia content.

109. Therefore, it is my opinion that it would not have been obvious to use

Yahoo! Mobile or Yahoo! To Go as a way to provide Yahoo! Clubs and related services on mobile devices. If that had been possible and obvious, Yahoo! would no doubt have done so. That Yahoo! did not do so suggests to me it was not technically feasible. It is my opinion that it would have been reasonable for a POSITA to believe that the reason Yahoo! did not offer more services through Yahoo! Mobile and Yahoo! To Go was the result of technical infeasibility—for example, each type of device would have required specific configuration and the common mobile devices would not have been able to support the more advanced Yahoo! features.

110. In 2002, a POSITA would have understood mobile device technology to be limited: very slow transfer rates of wireless technology, small screens, and limited memory. *See generally* Neibauer at Chapter 7; *see also* Section VI above. The extrinsic evidence supports this. See, e.g., 246 IPR Ex. 1012, Uwe Hansmann, et al., *Pervasive Computing Handbook* (2001) at 20 ("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). The Hansmann reference also explains that website content often has to be removed to support viewing on mobile devices. *Id.* ("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.") (emphasis added).

Similarly, Hansmann discusses the commercial implantation of a transcoding proxy server for Palm PDAs (the Palm Webclipping Proxy Server) and notes that "Applets, Java Script, frames, and cookies are not supported." *Id.* at 16.

111. Dr. Madisetti's obviousness analysis ignores the state of the art in 2002. His analysis applies hindsight, which counsel informs me is impermissible, to baldly assume that the capabilities needed to support Meta's prior art combinations were simply readily available in 2002. At that time, the technical hurdles to providing a interactive, media-heavy services on mobile devices would have prevented the combinations Meta imagines. In my opinion, it would not have been obvious to a POSITA to make the combinations with Neibauer that Meta suggests. As I discuss above, Neibauer itself supports my opinion.

2. Miller (246 IPR Ex. 1004)

112. Meta also relies on PCT publication number WO 00/17775 entitled "User-Defined Dynamic Collaborative Environments" by Craig Miller, Jeffrey K. Mangis, Harold D. Lester, John M. Nicholas, Andrew Wallo, Thomas P. Kress, Linda J. Cheal, James E. Weatherbee, Jr., and Linda M. Davies. The Miller Abstract states:

> A collaborative system and method allows members of a group to collaborate on a project such as a bid or proposal. . . . A set of tools and techniques are provided in order to facilitate negotiation and execution of complex instruments such as contracts between corporations and governments. According to a second embodiment, referred to as a dynamic collaborative environment, a user can define

> a group and a virtual private network environment including user-selected tools that facilitate communication, research, analysis, and electronic transactions within the group. . . . Multiple environments can co—exist on the same physical network of computers.

246 IPR Ex. 1004 at 2. Miller is concerned with user privacy in that it seems to have been conceptualized primarily in an attempt to accommodate collaborative environments revolving around the negotiation of financial instruments such as reinsurance contracts, and it concerns itself with concepts such as "anonymous email, secure communication, document retention, and bid and proposal listing services," and with the ability create an "environment that can be destroyed easily when it is no longer needed." *See*, *e.g.*, *id.* at 3:27-4:15.

113. In my opinion, the asserted combinations with Miller do not render the Challenged Claims obvious. Meta argues that the combination of Miller and Neibauer illustrates the creation of "collaborative web-based environments" in that Meta argues the combination discloses features enabling a collaborative environment. Meta asserts that Neibauer and Miller are analogous references with overlapping features, such that that it would have been obvious to combine these references. According to Meta, this combination discloses both a "mobile information channel" and the channel's activation. Based both on my experience in the field at the time of the Challenged Patents and on a plain reading the text of Miller, I disagree.

114. In my opinion, Miller does not disclose a "mobile information

channel." In fact, the word "mobile" does not appear anywhere in Miller's 113 pages.

115. Miller primarily describes a means for online negotiations. It has nothing to do with social clubs. In fact, neither "social" or "club" appear anywhere within the document. In my opinion, a POSITA simply would not have been motivated to combine Neibauer and Miller—in part because of the significant differences in their focus.

116. Miller does mention telephones, but only as a way of contact that can be stored in a database. Mobile devices are not disclosed in Miller. Similarly, the terms "wireless" and "mobile information channel" do not appear. Miller simply did not contemplate the use of mobile devices.

117. As with the combination of Neibauer and Miller, a POSITA would not have contemplated the combination of Cheng and Miller—in part because the vast differences in their aims. As I discuss below, the Cheng reference is focused on wireless and mobile technology. But these concepts do not appear anywhere in Miller.

118. Meta argues that Miller supports social club pages such as Yahoo! Clubs with "message board, chat room, as well as places to share photographs." '336 Pet. at 25. But Miller is silent regarding "message boards." Furthermore, Miller does not deal with photographs in the manner Meta suggests—instead

Miller's discussion of photographs is solely related to auctions or catalog sales. Finally, Miller's discussion of chat rooms is limited to disclosing that chat room software as available from many sources. Miller at 50:23-24. But Miller teaches away from chat rooms because they change over time and cannot be easily destroyed. *Id.* at 2:25-33, 36:14-18.

3. Cheng (246 IPR Ex. 1005)

119. Meta also relies on U.S. Patent No. 7,574,486 to Yin Cheng, Wilfredo Padin, Rongli Jiang, and Fedorcheck. Cheng generally describes a method wherein a proxy server accesses a website and reformats its visual elements to allow viewing by a mobile device. Cheng, Abstract. The method requires a proxy server, which receives a request from a mobile device to view a particular web page. *Id.* The proxy server then extracts images and text data from the requested web page and re-formats the data to allow it to be properly viewed on mobile device that made the initial request. *Id.*

120. Meta combines Cheng with Neibauer (and other art) to argue that a mobile device was able to accomplish the interactive features not present in Neibauer. But, as I explain in more detail below, Cheng cannot be used in this way because it only provides uni-directional transmission of data from a website to be displayed on a mobile device but does not provide for transmission in the other direction; that is, Cheng does not provide the bi-directionality disclosed by the

Challenged Patents. See, e.g., Cheng at Abstract, Claim 14. Cheng discloses sending a request 106 for a given web page 104 from a mobile device. Cheng, 3:58-63, FIG. 1. No other data is disclosed as being sent from the mobile device. *Id.* But the request 106 is not content for insertion into an information channel permitting interaction between a mobile device user and others, as required by the Challenged Patents. Nor is there any evidence that Cheng's proxy server or other mobile device would have supported such an upstream data transfer. In fact, Cheng makes no mention of methods to manage the type of connection required by two-way content transmission.

121. Cheng claims to disclose a universal website translation service that operates as go-between proxy server, which tries to convert conventional web sites to allow viewing on the conventional mobile devices of the time, which as I have discussed had small screens, limited memory, and received data over low-bandwidth connections.

122. Cheng discloses that the proxy server operates by receiving a website (or retrieving a cached copy), 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, 4:56-5:10, 17-22 (exemplary SW-Transforms). Cheng's SW-Transforms include the capability to

add, replace, or remove HTML tags and/or text from the requested web page so that it can be formatted for the requesting mobile device. *Id.*

123. In my experience, this 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 (small screens, limited memory, and low bandwidth for non-audio functionality) 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 Petitioner's other prior art and extrinsic evidence. Furthermore, Cheng's disclosed solution was dependent on, not only the limiting characteristics of the mobile device, but also on the design and characteristics of the conventional website.

124. Cheng's disclosures support my opinion. Specifically, Cheng discloses SW-Transforms that convert, downscale, and/or fully delete content from the original website to allow some of the website's content to be displayed on a mobile device. Cheng discloses SW-Transforms designed to completely remove certain HTML tags and content. One example of such a Transform facilitates 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, a website that relied on client-side scripting would not work properly on the mobile device because the disclosed SW-Transform would have removed the scripting.

125. Cheng also discloses device-specific (to conform all web pages to some specific constraint of a certain mobile device) and site-specific (to adapt the contents of a certain web page or group of pages on a web site for all mobile devices) SW-Transforms. *See*, *e.g.*, Cheng, 11:45-62; 12:25-31. From this, a POSITA would have understood that the success or failure of displaying any website on a specific mobile phone would necessarily depend on the design and capabilities ***both*** of the website and of the mobile phone. Neibauer does not

provide design or capability requirements for Yahoo! Clubs or any of its services. As such, Petitioner offers no evidence that any of Yahoo!'s required capabilities could have been translated by Cheng. In other words, Meta makes no showing that Yahoo! Clubs was able to be operated on any mobile device available at the time. In my opinion, Meta's analysis lacks the necessary details to show that a POSITA would have expected the combination of Neibauer and Cheng to work. Therefore, a POSITA would not have been motivated to combine those references.

126. As I described above, Cheng discloses only uni-directional data transfer: from the server hosting the requested website, through the proxy server translator, and to the client mobile device:

> 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.

See, *e.g.*, Cheng at Abstract. Cheng claim 14 is similar:

> 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;

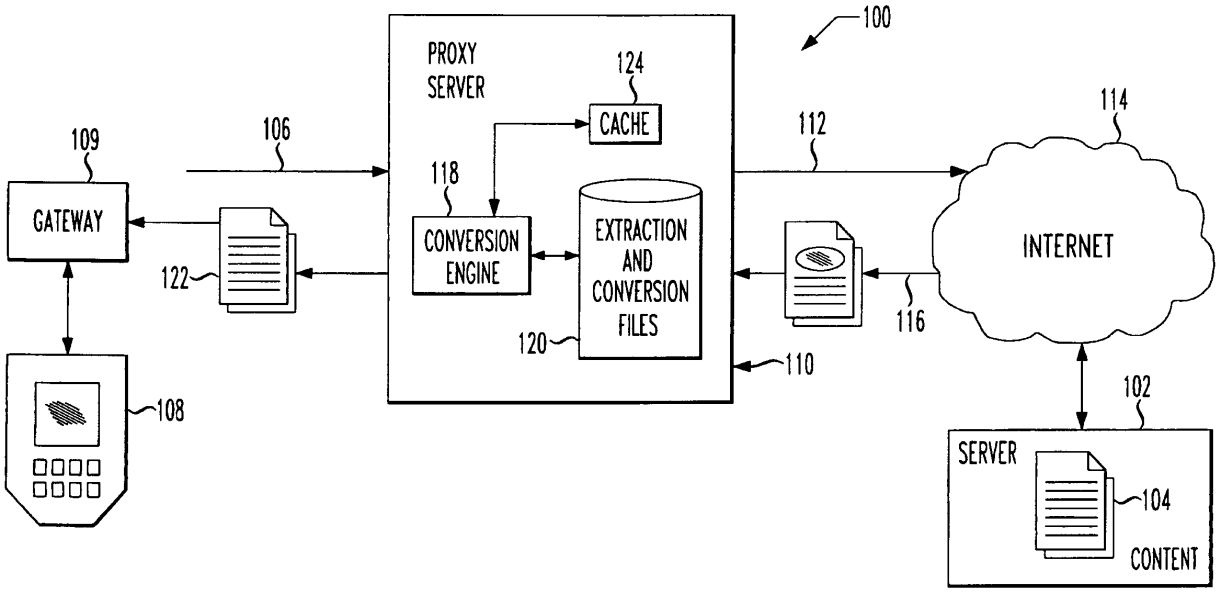
site-mining, at said physical proxy server, to extract content from said web page according to a predefined criteria;

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.

127. This uni-directitonality is illustrated in Cheng's Figure 1. That figure shows the transfer of data one-way, from the conventional website (web page 104), through the proxy server (110), into a reformatted web page (122) that is *transmitted to* the mobile device (108):

FIG. 1



Cheng, FIG. 1. As discussed above, the figure shows that the request 106 from the mobile phone is one-way. But the figure also shows that the returned content 116 and 122 is also one-way. There is no indication that these communications are bi-directional.

128. There is no indication that Cheng allowed for upstream data transfer from a client device through the proxy server to the host web server or any other server.

4. Ausems (246 IPR Ex. 1006)

129. Meta also relies on U.S. Patent Number 6,434,403 to Michiel R. Ausems, Jan B. Ausems, Felix N. Akveld, and Lee Ann Barrett ("Ausems"), which describes a "PDA Telephone" that combines a cell phone and a PDA to allow the PDA to transmit data over a wireless cell network. Meta uses Ausems to argue that "mobile communications devices with digital cameras and the ability to transmit images captured by digital cameras were already known." *See*, *e.g.*, '578 Pet. at p. 25. Specifically, Petitioner relies on Ausems to show:

> 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).

Ausems at 5:17-22.

130. But Meta reads too much into Ausems. The disclosure in Ausems is insufficient to teach a POSITA transmitting video wirelessly or video conferencing. The passage cited above refers to Figs. 1*l*-1*m*. But there is no reference to the component that enables connection to the wireless mobile network (wireless phone engine 210) in that or any preceding paragraph.

131. Earlier in the same paragraph, Ausems states: "Loudspeaker 185

transmits audio information from PDA telephone 100 to a user." Ausems at 5:13-14. In other words, a telephone 100 is transmitting the audio to a user by playing it through a speaker.

132. Similarly, after describing how video can be recorded and stored in the phone 100, the Ausems paragraph quoted above states the video "may also be transmitted from PDA telephone 100 in real time during a telephone call (thus allowing for video conferencing)." Ausems does not disclose, however, how the video is transmitted, or to whom. Read in the context of the preceding sentences, a POSITA would understand the disclosure that the video may be transmitted to mean the user of the phone can watch the recorded video on display 145 while the user is on the telephone with someone. A POSITA would not understand the reference to disclose that the person on the other end of the call can see the video.

133. To suggest that such a disclosure teaches video conferencing goes too far. In fact, the term "video conferencing" is only mentioned three times. See Ausems at 3:15-21, 5:17-22, and 5:34-36. Each of these occurrences is brief. None describe video conferencing in detail or disclosure how it works.

134. A POSITA would recognize that cellular telephone networks at the time Ausems was filed (February 1999) were unable to support the high data rate required for video conferencing. For example, HDSPA (3G+), which was the standard that actually enabled video traffic, assuming sufficient bandwidth (which

was not available until later in the decade), was actually released in 2002. *See*, *e.g.*, Ex. 2016.

135. Ausems discusses a high data rate when discussing the short-range Bluetooth transceiver being used to make a transaction:

> While at the checkout counter the merchant initiates a high data rate wireless communication link with PDA telephone 100 via antenna 110 and smart-card engine 260. Smart-card engine 260 reads the card account information and transmits it to the point of sale terminal.

Ausems at 6:34-39.

136. Neither of Ausems's two embodiments adequately describes image transmission:

a. The primary embodiment details how the "PDA phone" can use a short-range transceiver to communicate with other devices, and as a remote control device to control other devices. In this embodiment, the PDA phone exchanges data with a remote computer, but "The exchanged data includes information stored within the PDA engine and the address book."
b. The second embodiment includes a digital camera, and "a modem coupled to the wireless telephone engine and the PDA engine."

Ausems at 1:53-2:13.

137. In the primary embodiment, Ausems fails to disclose that the PDA engine 290 stores images or video, but Ausems does disclose that it can store the following information:

a. "sale transaction information" *Id.* at 6:47-48
b. "new balance of account" *Id.* at 6:53-54

c. "address information" *Id.* at 7:14-16

d. "telephone number" *Id.* at 7:29-31

e. "signals from GPS satellites" *Id.* at 7:35

f. "transfer and/or backup PDA applications and data files"

Id. at 7:48-49.

138. In describing the secondary embodiment, Ausems states: "Wireless phone engine 210 transmits and receives audio data via antenna 110, as well as text and images." *Id.* at 5:56-58. But that feature is not mentioned elsewhere in the specification, nor is there a description of how it transmits text and images. Specifically:

a. The word "images" only appears four times in the specification:

- "In another embodiment, the device also includes digital camera for recording images." *Id.* at 2:5-7
- "Camera 190 records video images and stores them within. PDA telephone 100. Additionally, video images recorded by camera 190. . ." *Id.* at 5:17-19.
- "Wireless phone engine 210 transmits and receives audio data via antenna 110, as well as text and images." *Id.* at 5:56-58

b. The specification does not disclose where the images are stored in the PDA telephone 100.

139. Ausems fails to mention GSM, CDMA, TDMA, or any other cellular network protocol. The only reference to the cellular network for phone engine 210 is:

> According to one embodiment, wireless phone engine 210 may operate on an analog control channel. However, in a further embodiment, wireless phone engine 210 may also operate on a digital control channel.

Ausems at 5:61-65. In my opinion, a POSITA in 2002 would not have considered that to be an adequate description.

140. Ausems does not enable a POSITA to send images via its "phone engine 210." Although Ausems asserts that this could be done, the reference fails to provide a description sufficient to inform a POSITA *how* to accomplish that task. Essentially, a POSITA would require another invention to teach a method that implement Ausems, since Ausems itself contains no such teaching.

141. When Ausems was filed, it was simply not feasible to transmit video and/or images over wireless telephone signals (e.g. the wireless phone engine 210). At least in part, that is because the predominant wireless protocol at that time was 2G, while the early versions of 3G guaranteed at most 144 kbps/s. Only in 2002 and beyond did the required 3G+ protocol become available, but even then, video transmission over wireless networks was at least five-to-six years off in the future given the capacity of wireless networks. Moreover, a POSITA would not have been motivated to combine Cheng and Ausems for several reasons:

a. The two references are in different classes and do not share even one US Class code:

    1 Cheng has International Class code G06F 15/16 (Main Category Physics: Combinations of two or

more digital computers each having at least an arithmetic unit, a program unit and a register, e.g. for a simultaneous processing of several programs).

2 Ausems has International Class code H04B 1/38 (Main Category Electricity: Transceivers, i.e. devices in which transmitter and receiver form a structural unit and in which at least one part is used for functions of transmitting and receiving).

b. Therefore Ausems and Cheng are not analogous art, and are not used in the same scientific fields. A POSITA would not have considered their combination.

142. Also, Ausems claims to have already solved the problem Cheng was trying to solve (i.e. using a mobile device to access computer data via wireless network). Therefore, there would have been no reason to combine it with Cheng because Cheng would have been irrelevant.

143. Finally, as I discussed above, Neibauer would not have been considered by a POSITA in the design of such a system because it is simply a user reference for novice users of Yahoo!

5. Squibbs (247 IPR Ex. 1011)

144. U.S. Patent Publication Number to Robert Francis Squibbs describes a technique of recording and displaying photographs, together with the location where they were taken. *See* Squibbs at Abstract. In one embodiment, Squibbs describes a digital camera 90 that transmits photo image data to a cell phone 20, which then 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).

Squibbs discloses that the cell phone can determine location information of the image data in a number of ways, including by using "a location server of the mobile radio infrastructure," or using "a GPS system built into the cell phone." *Id.*, ¶0098. After determining the location information, the cell phone may upload the photo image data and the location information to a network store 43. *Id.*, ¶0101.

145. Meta asserts that it would have been obvious to combine the Squibbs's determination of geographic location of a photograph with the Yahoo! Clubs photo sharing feature identified in Neibauer. Pet. p.37. Indeed, Meta asserts that the photo sharing feature would be adapted to display location information associated with uploaded photos through map-based user interfaces similar to the maps depicted in FIGS. 6-7 of Squibbs and a Yahoo! Maps feature detailed in Neibauer. *See id*., 36-38.

146. But neither Squibbs nor Neibauer (nor any of the cited references) discloses the required previously established information channel permitting interaction between a user of a mobile device and other users. Squibbs's map-based user interfaces depicted in FIGS. 6-7 are generated by an album program 50 residing a personal computer (e.g., PC 5). Squibbs, ¶¶31-32, 64. In Squibbs, after the cell phone 20 transmits the location information to the network store 43, the album program 50 stored in the PC 5 receives the location data (e.g., location log 100) from network store 45 to generate the respective maps. Squibbs, ¶¶113-114;

FIG. 12. As such, the map-based user interfaces generated by the album program 50 and depicted in FIGS. 6-7 of Squibbs are clearly designed for presentation by a display that is part of a PC—rather than the required information channel permitting interaction with a mobile device (e.g., with limited display space and limited navigational capabilities).

147. As I discussed above, Neibauer's Yahoo! Clubs feature is a web-enabled feature designed for use by a computing device that is unencumbered by the limited display space and navigational capabilities of a mobile device. The Yahoo! Map is designed for the same types of computing devices (e.g., desktop computer). For example, the Yahoo! Map page includes a Zoom bar positioned above the map to allow the user to navigate to different scales of the depicted map, as shown:

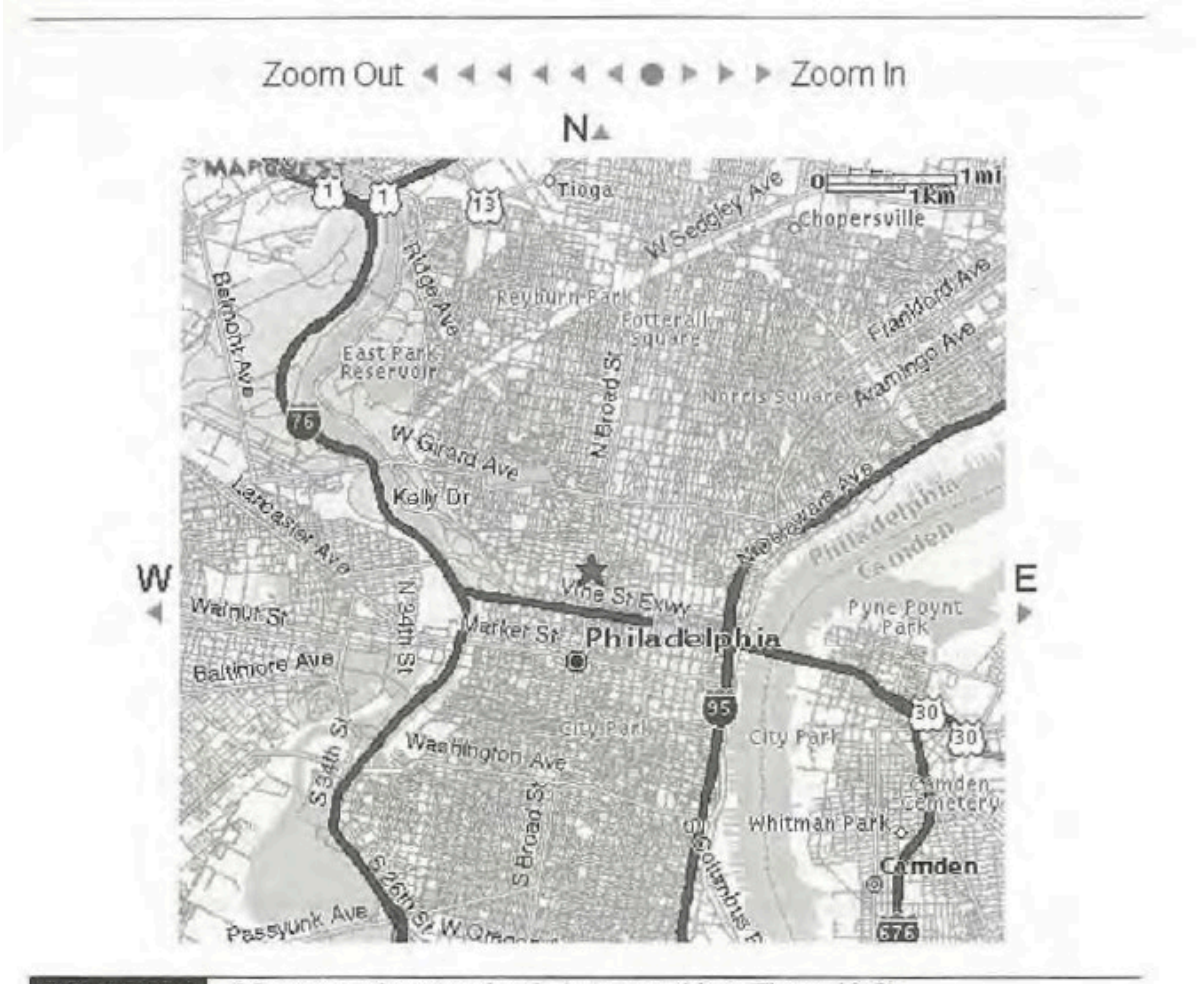


FIGURE 10-3 Map zoomed out two levels (compare this to Figure 10-2)

Neibauer, p.225.

148. The Yahoo! Map's zoom navigation tools cannot be provided on an information channel permitting interaction between mobile device users because of the limited display space and navigational capabilities of the mobile devices. Additionally, Neibauer never discloses that the Yahoo! Mobile feature can present complex graphics and interactive features (e.g., Zoom) on a mobile device. Instead, like Squibbs, Neibauer anticipates accessing the map on desktop computers

because the map is depicted as a separate object in the browser window that can be saved and annotated in the Windows Paint program. Neibauer, p.225.

149. In my opinion, the combination of Neibauer, Cheng, and Squibbs fails to integrate content and information associated with a wireless networking functionality (e.g., location data) provided by a mobile device into an application-based information channel permitting interaction between a user of the mobile device and other users. None of the cited references provides for the transmission of any information associated with a wireless networking functionality for integration into a previously established application-based information channel permitting interactions from a mobile device with a limited display space and limited navigational capabilities.

6. McElfresh (250 IPR Ex. 1014)

150. U.S. Patent Number 6,907,566 to Charles McElfresh, Paul Mineiro, and Michael Radford is relied upon by Meta for the '348 Patent in Grounds 3 and 6. McElfresh describes a technique for placing advertisements on a webpage. *See* McElfresh at Abstract. Meta acknowledges that:

> a website can issue a request for ads for inclusion on a webpage, and the ads provided will be selected and ranked in a in a way that increases the likelihood of click-throughs and maximizes advertising revenue. (McElfresh, 5:20-28).

Pet. 53-54. In McElfresh:

> the website 104 requests ads from the Rad Server 112 as shown by

> dataflow 160. After the steps described above are performed, 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 at 8:9-14. McElfresh describes an ad-request and response system that provides "on-the-fly" ad selection. In my opinion, this ad-request and response is *not* analogous to data that is periodically obtained from a given identified data feed. McElfresh does not teach '348 patent Claim 10's "at least one data feed and wherein data is periodically obtained from a given such identified data feed and 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." A similar limitation appears in Claims 15 and 19. Claims 11, 16, and 20 further require the data from the identified data feed to comprise at least one advertisement. That limitation is also not taught by McElfresh.

7. Harvey (246 IPR Ex. 1010)

151. Meta also relies on U.S. Patent Number 6,487,583 to Jamey Harvey, Andrew Fegly, Matt Hulan, and Robert Dekelbaum to form additional grounds in several of these IPRs. In each case, Meta only relies on Harvey to address issues that result from Meta's proposed constructions of the "information channel"

limitations in the district court litigation. But counsel informs me Meta is not asserting its district court proposed constructions for the "information channel" limitations in any of these IPRs. In my opinion Harvey does not address the deficiencies of the combinations created with the other prior art references. But because Meta is not asserting its district court "information channel" argument, I do not offer any further opinion regarding Harvey. I reserve the right to supplement my opinion if Metta either changes its proposed claim constructions or asserts the reference for any other purpose.

B. Non-analagous Prior Art

152. I understand from counsel that prior art that is too remote from the patents being attacked cannot be treated as prior art. Based on my experience in the field at the time, Neibauer would fall into this category. Meta argues in each petition for each of the Challenged Patents that "Neibauer is an analogous reference in the same field as the '578 patent of network-based communication systems for managing information content and would have been reasonably pertinent to problems facing the inventors. (EX1002, ¶104.)." See 249 IPR Pet. at 21. Similar statements appear in the petitions of the other Challenged Patents. The citation at the end of that sentence is to Dr. Madiseti's Declaration where he states that "Neibauer is an analogous reference in the same field as the '578 patent that discloses similar functionality for managing information content accessible

through the Internet, through a series of web-based information channels that provide the ability to exchange messages and collaborate among multiple users, and would have been reasonably pertinent to problems facing the inventors including how to implement a web-based system for managing information content and making that content available to users over the Internet." 249 IPR Ex. 1002 ¶104. I disagree with both of those statements.

1. Field of Endeavor

153. I understand from counsel that the test for analogous art requires the Board to determine the appropriate field of endeavor by reference to explanations of the invention's subject matter in the patent application, including the embodiments, function, and structure of the claimed invention. I further understand from counsel that the reality of the circumstances should be used to decide which filed a POSITA would reasonably be expected to look to for a solution to the problem facing the inventor.

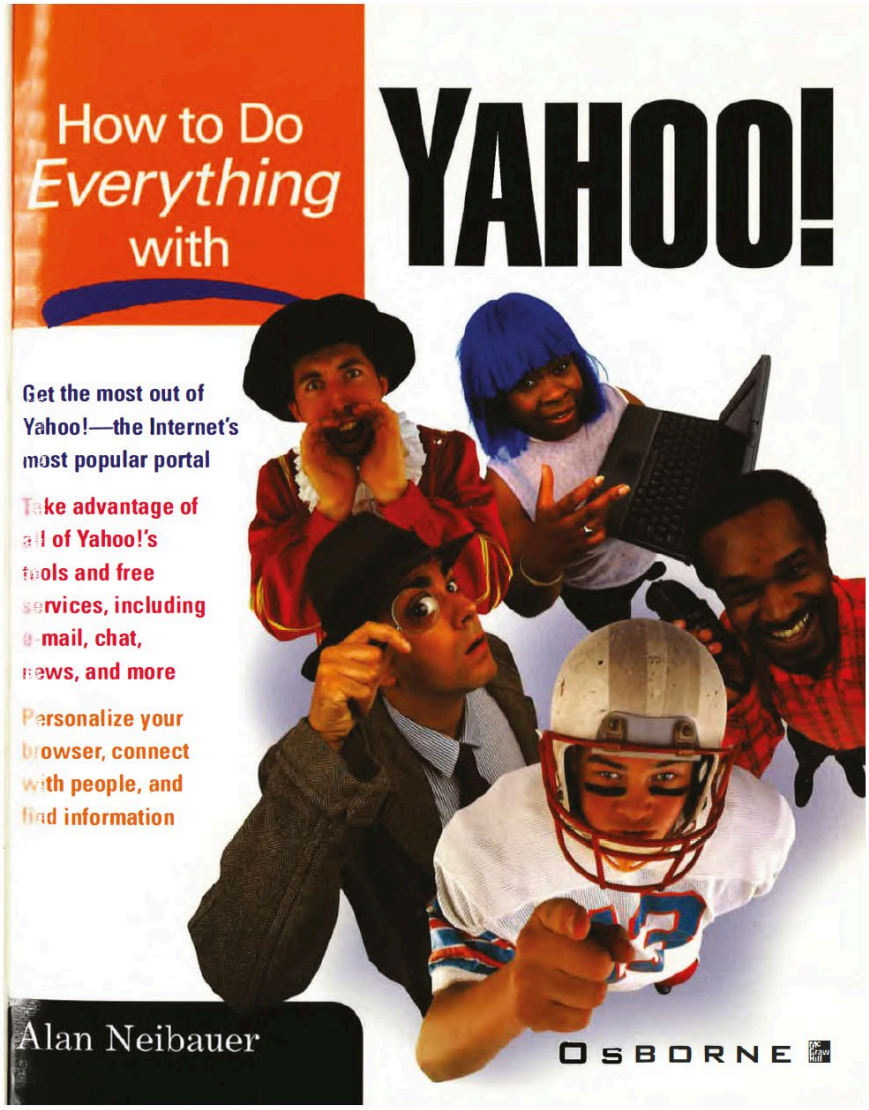
154. At the time the provisional application was filed, the Challenged Patents were technically sophisticated and disclosed an invention that was at the cutting edge of technology. For example, Claim 1 of the '578 Patent describes integrating media data captured by a mobile device and networking functionality information to generate integrated content, which is then inserted into an information channel, which provides an interface for multiple users to share access

to the integrated content. *See* '578 Patent Claim 1, 19:27-42. The other Challenged Patents contain similar limitations. None of the Challenged Patents merely describe a well-known system, such as could be easily utilized by lay users, or an incremental development.

155. Nonetheless, Meta alleges that a "a person of ordinary skill in the art 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." 249 IPR Ex. 1002 ¶17. But even accepting this definition of a POSITA, at the time of the invention such a POSITA who would be implementing the invention disclosed by the Challenged Patents would be more sophisticated than Neibauer's likely readers.

156. It would lack common sense for an electrical engineer or computer scientist with years of experience developing software to consult a book, such as the Neibauer reference, which is entitled "How to do everything with Yahoo." I discuss the Neibauer reference in more detail in Section XI(A)(1) above. Essentially, this reference is an early version of what is now the well-known "For Dummies" genre. Neibauer is targeted to laypeople with an introductory skill level—not engineers or computer scientists working in software development.

Even the cover of Neibauer makes clear that its target audience was neophytes and laypeople learning to use Yahoo! in the Internet's early days:



246 IPR Ex. 1003 at 2. Among other things, Neibauer explains such simple concepts to the reader as: how to "[g]et free e-mail" (chapter 2); "[m]anage your calendar" (chapter 4); and "[s]earch the Internet" (chapter 8). 246 IPR Ex. 1003 at 3. Neibauer himself is a corporate trainer and former high school teacher whose

work focused on helping non-users "achieve their presence on the Internet"—he is neither an engineer nor a computer scientist *Id.* at 6. Neibauer does not discuss software development. *Id.* at 3. Neibauer's target audience is not an electrical engineer or computer scientist writing software. Instead, Neibauer is teaching people who are new to computers the fundamentals of *using* a computer to do such things as signing up for email and performing web searches. *Id.* No computer scientist or electrical engineer would ever consult a reference like Neibauer when developing software to solve the issues addressed by the Challenged Patents' disclosures.

157. Although Neibauer discusses computer software in a tangential manner, it is essentially a user's manual, directed to users of the internet. It is entirely directed to readers who lack the knowledge of a POSITA. Just as a car's user manual would not assist in designing a car, Neibaur would be of no use to a POSITA at the time of the Challenged Patents in designing new features. I am of the opinion that Neibauer is not in the same field of endeavor as the Challenged Patents. Counsel informs me that this view is consistent with the law on this issue. I am, therefore, of the opinion that Neibauer is not a reference that would have been referenced by a POSITA at the time of the Challenged Patents.

2. Reasonable Pertinence to Problem Addressed by Patent

158. I understand from counsel that the Board will determine the

appropriate field of endeavor by referring to explanations of the subject matter of the invention. That analysis will confirm my prior opinion that Neibauer is *not* reasonably pertinent to the problem addressed by the Challenged Patents. For example, the specification of the Challenged Patents explains that:

> An important challenge in this context relates to facilitating the process of creating, publishing, distributing or otherwise managing information content so as to provide optimal presentation consistent with the limited display space and navigational capabilities of typical mobile devices. Many users, for example, may wish to make specific personalized information content available via mobile devices to their friends, colleagues, subscribers or other entities. However, conventional techniques have been unable to meet this need in a satisfactory manner. By way of example, conventional techniques such as web site authoring tools and web logging ("blogging) are not optimized for use in the generation of information content for shared access via mobile devices.
>
> These and other conventional techniques suffer from a number of significant drawbacks, including a failure to provide Suitable integration of messaging, collaboration, location-based services or other wireless networking functionality with the generation of shared information content. As a result, it is generally not possible for different mobile device users to link to and take further action on a persistent version of a given set of shared information content. The conventional techniques thus fail to provide a mechanism that facilitates uniform, action-driven content access and associated user interaction via wireless networks. Also, such techniques generally require a significant amount of programming knowledge for their proper use, and are therefore not suitable for relatively unsophisticated users.

See ’578 Patent 1:42-2:2. Neibauer does not solve these problems. Dr. Madisetti states that Neibauer “would have been reasonably pertinent to problems facing the inventors including how to implement a web-based system for managing information content and making that content available to users over the Internet.” 249 IPR Ex. 1002 ¶104. But that is not the problem solved by the Challenged Patents. The problem solved by the Challenged Patents is that “it is generally not possible for different mobile device users to link to and take further action on a persistent version of a given set of shared information content.” ’578 Patent 1:61-63. Neibauer, however, is not an invention and is not attempting to solve *any* problem. Instead, Neibauer is aimed simply at instructing laypeople regarding rudimentary use of the Internet, such as sending emails and searching the web.

159. I further understand from counsel that a reference is only considered to be reasonably pertinent to the problem addressed by the patent if a reference disclosure and the claimed invention have a same purpose. Neibauer’s purpose, which is to act as a reference guide to help a layperson use the rudimentary aspects of a specific kind of computer software, is substantially different than the purpose of the Challenged Patents, which is directed to allowing bidirectional information sharing from mobile device users on a persistent version of a given set of shared information content. ’578 Patent 1:61-63. As Neibauer and the Challenged Patents do not have the same purpose, Neibauer is not reasonably pertinent to the problem

addressed by the Challenged Patents.

160. Using Meta's definition, a POSITA who was searching for art outside their field of endeavor would approach the search from the point of view of someone with a bachelor's degree in electrical engineering, computer science, or similar field. From this perspective, a POSITA would not consider Neibauer to solve the problem of finding a way to allow "different mobile device users to link to and take further action on a persistent version of a given set of shared information content," '578 Patent 1:61-63, by way of activating the application-based information channels on a mobile device and interacting with those application-based information channels bidirectionally on a mobile device. Instead, a POSITA would consider the rudimentary nature of Neibauer to be unhelpful in solving a complex problem like that of the Challenged Patents at the time of invention.

C. Lack of Motivation to Combine Neibauer and Cheng

161. In relation to all Challenged Patents, Dr. Madisetti opines that it would have been obvious to combine Neibauer and Cheng.[6] Dr. Madisetti applies

[6] For the independent claims of some patents, Dr. Madisetti combines additional references for minor ancillary features: e.g., Miller for the disclosure of creating a collaborative web-based environment ('336 and '801 Patents), Squibbs for the disclosure of location-based functionality in a mobile device ('801, '039, and '578 Patents), and Ausems for obtaining image data from a digital camera ('348 Patent). I do not understand these nuances to have any bearing on Dr. Madisetti's theories on the motivation to combine Cheng with Neibauer, and the presence or absence of

the Neibauer/Cheng combination to claim elements in the Challenged Patents that require mobile functionality. *See*, *e.g.*, 246 Madisetti at ¶62; 247 Madisetti at ¶62; 248 Madisetti at ¶59; 249 Madisetti at ¶59; 250 Madisetti at ¶59. I disagree the combination would have been obvious, for several reasons.

162. First, as I discuss in the above section, Dr. Madisetti 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 Dr. Madisetti'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.

163. Assuming Dr. Madisetti's position that Neibauer alone would have rendered the claims obvious is incorrect and Neibauer actually is deficient, adding Cheng would not solve the deficiency. Dr. Madisetti does not propose modifying

these additional references has no bearing on my opinions on why a POSITA would not have combined Cheng with Neibauer. For at least similar reasons, however, 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.

Cheng's proxy translation system in any way, and in fact refers to it as "bolt-on functionality." *See*, *e.g.*, 246 Madisetti at ¶117; 247 Madisetti at ¶109; 248 Madisetti at ¶99; 249 Madisetti at ¶103; 250 Madisetti at ¶102. But 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. 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").

164. But the claims of the Challenged Patents recite two-way, interactive functionality, where the mobile device not only receives but sends content. For example:

- "wherein the mobile information channel is configured to permit the first user to send messaging content to the one or more additional users ***and to receive messaging content from the one or more additional users***" '336 Patent, Claim 1
- "***receiving additional content relating to the mobile information channel from one or more of said additional users*** via one or more respective mobile devices associated with at least one wireless network" '801 Patent, Claim 1
- "***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" '039 Patent, Claim 19
- "providing a first interface ***permitting designation of at least one content item, via a mobile device, for insertion into an application-based information channel***, the at least one content item comprising media data captured by the mobile device" '578 Patent, Claim 1
- "receiving first/second device-captured data from a first/second mobile device over at least one network" '348 Patent, Claim 13

165. Dr. Madisetti's declarations gloss over these claim limitations. For example, for the '336 and '801 Patents, he declares the upstream communication limitation "redundant" to his analysis of a prior limitation, which itself does not address how Cheng supposedly supports upstream transmission of content from a

mobile device through the proxy server to the origin web server. 246 Madisetti at ¶ 132 (referring back to ¶¶ 130-131); 247 Madisetti at ¶¶ 124-125 (referring back to ¶¶ 119-123).

166. For the ’039 Patent, Dr. Madisetti opines:

> Under the proposed combination, therefore, the new uploaded photo would have been ‘***receiv[ed], at a server from a mobile device***,’ as claimed, when a club member via the web browser on their mobile device uploads a photo using the techniques described above.

248 Madisetti at 100 (emphasis in original). But the prior paragraphs simply recite the same downstream-only disclosure of Cheng he uses in all of his declarations. *Id.* at 92-99.[7]

167. For the ’578 Patent, Dr. Madisetti simply relies on the addition of Cheng for the concept of a "mobile device" and walks through Cheng’s disclosure of translating downstream web page traffic to the mobile device, but does not attempt to reconcile that disclosure with the ’578 Patent claim requirements that the mobile device inserts (i.e., uploads) designated content into an application-based information channel. 249 Madisetti at ¶¶ 96-101.

168. For the ’348 Patent, Dr. Madisetti gives lip service to upstream

[7] Dr. Madisetti makes a passing, conclusory reference to “the HTTP request that included the photo” (*id.* at ¶ 100) but does not say anything else about this supposed request and how it might include a photo, much less provide any evidence that Cheng’s proxy server would have supported such a mechanism. In fact, as I discuss below, Cheng’s disclosure of a cache in the proxy server would interfere with any such mechanism.

transmission, simply stating without support that "the photo would have been received by the proxy server 110 and origin web server 102 in Cheng." But Dr. Madisetti does not cite to Cheng in support of that proposition, nor does he propose to modify Cheng's downstream translation system to support upstream transmission of content from a mobile device through the proxy server to the origin web server. 250 Madisetti at ¶ 117.

169. In my opinion, Cheng's omission of the treatment of upstream content transmission is not merely an inconsequential oversight. Two-way transmission of content between a client and server often implies a persistent connection between the two, beyond the transaction-oriented nature of requesting and receiving a web page as disclosed by Cheng. Managing such persistent connections in turn requires a server to keep track of a client's state, which is done through additional mechanisms such as cookies stored on the client and requested by the server. Cheng makes no mention of any of these considerations.

170. Additionally, Cheng's use of a cache to store pages previously retrieved from the origin web server would directly interfere with any potential two-way communication, by preventing the initial request from a mobile device from reaching the origin web server. The origin web server thus would have no knowledge that the mobile device was trying to establish a connection for the upstream transfer of data. Indeed, the core functionality of Cheng's proxy server is

to isolate the mobile device from the origin web server, and to conceal from the origin web server the fact that a mobile device is the client ultimately requesting the content. The proxy server is thus "transparent" to the web server: from the web server's perspective, the proxy server is the client.

171. Dr. Madisetti opines that it would have been obvious to combine Cheng's proxy server with Neibauer's web server even if both were under the control of a single entity. *See*, *e.g.*, 246 Madisetti at ¶74 ("It would have been obvious that the proxy server, in the proposed combination, could have been operated by the same or a different entity from the operator of the origin web server."). I disagree, and in fact it is my opinion that a POSITA seeking to implement mobile-capable conversion for its own web server would not simply "bolt on" Cheng's proxy server as Dr. Madisetti suggests. Such an arrangement would result in compromises in ease of use and user experience that a POSITA would find unacceptable, particularly when alternate design choices would not share those compromises.

172. The primary reason I disagree that a POSITA would choose to unnecessarily use Cheng's proxy server model is because users of mobile devices attempting to access the website must know about the proxy server and alter their configuration and/or browsing behavior to account for it. Cheng discloses only two ways for a mobile device to route requests through its proxy server: either through

a permanent connection between the client and proxy server via a device configuration (which would route any and all traffic through that proxy), or a "decorated URL" (e.g., www.proxyserver.com/?url=http://www.originalwebserver.com). This reflects my understanding of the choices that were available for the use of proxy servers by a client device at that time.

173. In my opinion, both of these options would be unacceptable to a user, because they make unnecessary work just to access the desired website: either the user would have to manually reconfigure their browser to point to the proxy server in an entity that implemented the Neibuer/Cheng combination every time they wanted to view that website (and then change the proxy configuration again to view other websites), or the user would have to enter a special "decorated URL" every time they wanted to access that entity's website. In my opinion, a POSITA would find these compromises in ease of use and user experience unacceptable, and that would direct the POSITA away from Cheng's proxy server.

174. Finally, setting aside all the above deficiencies in Dr. Madisetti's analysis, I disagree with Dr. Madisetti 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.

175. Dr. Madisetti 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" (e.g., 246 Madisetti at 108; 247 Madisetti at 100; 248 Madisetti at 106; 249 Madisetti at 109; 250 Madisetti at 108), 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. Moreover, as I explained above, mobile devices at the time would have been utilizing the WAP protocol, not HTML or HTTP. Thus, this statement emphasizes the lack of motivation to combine these references in the context of mobile devices.

176. Additionally, Cheng does not disclose a universal translator as Dr. Madisetti seems to assume, but rather a framework and a small subset of examples from what Cheng describes as a "nearly infinite" set of possible transformations

that might have to be applied to a given webpage to attempt to present at least some of that webpage on a mobile browser. In my opinion, a POSITA would have had to engage in an undue level of experimentation to determine whether—contrary to all indications from the complexity of Neibauer's web pages and the limited functionality of contemporaneous mobile devices—Neibauer's web pages might be converted through some combination of Cheng's SW-Transforms (either ones disclosed in Cheng, or others the POSITA might have to invent) in a way that the web pages could be viewed on the mobile device at all, much less while retaining all the functionality Dr. Madisetti relies on.

177. 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 Dr. Madisetti's definition.

D. 246 IPR

1. Ground 1, Neibauer in View of Miller and Cheng do not Render Claims 1, 6-11, 13-18, 20-21, 23-27 of the '336 Patent Obvious

178. Meta's Ground 1 misconstrues the "mobile information channel" of claim 1. 246 Pet. at 13-18; 247 Pet. at 12-20.[8] When properly construed, Claim 1's "mobile information channel" is not taught by Neibauer. The combination of Neibauer, Miller, and Cheng does not render these Challenged Claims obvious.

179. Claim 1 requires a "mobile information channel," which supports messaging between a wide variety of devices, including those (such as mobile telephones from the early 2000s) with significant technical limitations, over a wireless network. As I opined in more detail above, Neibauer (i) is aimed at neophyte computer users, and (ii) does not teach design solutions of any kind. In my opinion, a POSITA in 2002 would not have relied on Neibauer for any reason. Ignoring these issues, however, Neibauer (at best) shows lay users how to use a "conventional laptop computer[]" to "visit web pages on the Internet[]" such as "the Yahoo! website[.]" 246 Pet. at 21; 247 Pet. at 21. Even assuming the Board considers this low-level illustration of Neibauer, that "teaching" does not disclose, or even suggest, Claim 1's "mobile information channel."

180. The '336 Patent and the '801 Patent both emphasize that one

[8] Because of the similarities between Ground 1 of the 246 IPR and the 247 IPR, I will address them both in this section and cross-reference this discussion below.

advantage of the disclosed technology is its ability to "operate independently of the user device operating system or other user device configuration parameters, such that a given user may author, create, publish, send, convey, share, receive, respond to, subscribe to, collaborate with, track, transact, maintain and manage personalized messaging content *from any type of user device* running any operating system." '336 Patent 18:39-45 (emphasis added); '801 Patent 18:44-50 (emphasis added).

181. The '336 Patent and the '801 Patent both include a "wide variety" of devices that can utilize the technology:

> The mobile devices 15 can collectively comprise a wide variety of different devices configurable for communication over the network 12. The term "mobile device" as used herein is intended to include, without limitation, any type of portable information processing device capable of being configured for communication over a network. Examples of mobile devices 15 utilizable in system 10 of FIG. 1A include a mobile telephone, a personal digital assistant (PDA), a palmtop computer, a hand-held computer, a laptop computer, a tablet computer, a global positioning system (GPS) receiver or other GPS-based navigational device, an MP3 player or other type of audio player, a pager, a watch or other timepiece, a camera, a portable game player, etc.

'336 Patent 4:28-40; '801 Patent 4:36-48.

182. Claim 1 of the '336 Patent recites that its "mobile information channel" both "supports messaging between the first user and the one or more additional users over a wireless network;" and "is configured to permit the first

user to send messaging content to the one or more additional users and to receive messaging content from the one or more additional users."

183. As I opined above, the claimed "mobile information channel" has to enable messaging between the "wide variety" of mobile devices disclosed. Those "mobile devices" include not only "a laptop computer" but also "a mobile telephone" and "a personal digital assistant (PDA)" (among other devices). '336 Patent 4:28-40; '801 Patent 4:36-48.

184. The '336 Patent and the '801 Patent both explain that the focus of the invention is to expand content access via *mobile* devices:

> One of the most rapidly expanding aspects of wireless networking involves the accessing of information content over wireless networks via *web-enabled mobile devices*. Examples of such devices include *mobile telephones, personal digital assistants (PDAs), palmtop computers*, etc.

'336 Patent 1:30-35 (emphasis added); '801 Patent 1:30-35 (emphasis added). More specifically,

> An important challenge in this context relates to facilitating the process of creating, publishing, distributing or otherwise managing information content so as to provide optimal presentation *consistent with the limited display space and navigational capabilities of typical mobile devices*.

'336 Patent 1:40-45 (emphasis added); '801 Patent 1:40-45 (emphasis added).

185. The focus the '336 Patent and '801 Patent disclosures (and their claims) are technologies that enable content sharing on *mobile* devices that have

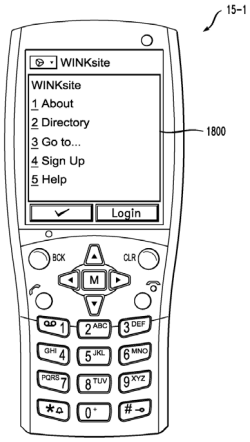
limited technical capabilities. As I described above, such devices were previously incapable of enabling such functionality.

186. This construction is supported throughout the ’336 Patent and the ’801 Patent. These patents illustrate using the claimed technology through a “web-enabled mobile telephone”:

> FIG. 18 shows an example mobile device 15-1 suitable for use in the system of FIG. 1A. *The mobile device 15-1 in this example is in the form of a web-enabled mobile telephone*, but as indicated previously herein, the invention does not require the use of any particular type or configuration of mobile device.

’336 Patent 14:54-60 (emphasis added); ’801 Patent 14:57-62. *See also* ’336 Patent FIG. 18; ’801 Patent FIG. 18:

FIG. 18



187. In my opinion, implementing the invention of Claim 1 would have enabled the “typical mobile device” (like FIG. 18’s “mobile telephone”) to share and interact with content, despite its apparent “limited display space and navigational capabilities.”

188. Meta downplays the import of the term 'mobile,' arguing that "the word 'mobile' in 'mobile information channel[]'… adds nothing of significance[.]" 246 Pet. at 21; 247 Pet. at 20.

189. Meta further argues that because a "conventional laptop" could "run web browser software and visit web pages" like the "the Yahoo! website, including the clubs feature" discussed in Neibauer Chapter 21, this disclosure teaches Claim 1's "mobile information channel." 246 Pet. at 21; 247 Pet. at 20. I disagree.

190. As I opined above, the *mobile* in the phrase "mobile information channel" is a critical piece of the invention. The invention's primary focus is to enable content sharing by "typical mobile devices" with "limited display space and navigational capabilities." '336 Patent 1:44-45; '801 Patent 1:44-45. Neibauer's suggested use of a "conventional laptop" does not fulfill the invention's aim. Even in the early 2000's, the "conventional laptop" referenced in the Petition had "display space" and "navigational capabilities" comparable to a desktop computer. As I explained above, at the time of the initial filing, a POSITA would not have understood a generic laptop to be a "mobile device" for at least the following reasons:

a. Laptops were increasingly powerful and matched the computational and storage capabilities of desktop computers.

b. The networking capabilities of laptops were equivalent to those of desktop computers, with a standard Ethernet port for a wired network connection.

c. Laptops with up to 17-inch screens were common, and screens of those sizes are comparable to computer monitors of the day.

d. While laptops did have reasonable battery life, laptop usage patterns were, and remain, such that most people tend to keep them plugged into a wall outlet, which would "fulfill the role of a desktop PC or Mac." *See* Ex. 2015.

See ¶ 43, *supra*. Contrary to Meta's suggestion, accessing the internet with a laptop does not teach Claim 1's "mobile information channel."

191. As I opined above, a "conventional laptop" accessing "the Yahoo! website" does not teach or suggest the claimed "mobile information channel" which enable messaging between a "wide variety" of mobile devices, including laptops *and* other, less-sophisticated devices.

2. Ground 2, the Ground 1 Prior Art in Light of Ausems does not Render Claim 7 of the '336 Patent Obvious

192. Meta asserts Ausems in combination with the Ground 1 reference with respect to Claim 7, which depends from Claim 1. Pet. at 59-60. In my opinion, Ausems does not cure the deficiencies in Ground 1, on which I opined above with respect to Claim 1. Specifically, as I opined above, Ausems describes combining a PDA and mobile phone with a digital camera. *See* § XI(A)(4) above. Meta argues using Ausems "to show an example of a mobile communications device that, among other things, incorporated a digital camera for recording, storing, and transmitting digital images." But Ausems does not teach a method for uploading digital images to a mobile information channel from a digital camera of a mobile

device. Instead, Ausems makes clear that "PDA/wireless telephone combinations" of that time "are *unable* to run application software packages or transmit and receive video data." Ausems 1:35-37 (emphasis added). Because Ausems is concerned with the appearance designing a PDA telephone combination—rather than explaining how the asserted features could work—it does not explain how to remedy the cited deficiency. *See*, *e.g.*, *id.* Figs. 1a-1p.

193. Meta argues that Ausems claims:

> 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).

See also id. 2:5-6 ("[T]he device also includes [a] digital camera for recording images…."). But Ausems fails to teach how to transmit images from the PDA. As I noted above, Ausems acknowledges that "PDA/wireless telephone combinations are *unable* to run application software packages or transmit and receive video data." *Id.* 1:35-37 (emphasis added). Ausems does not provide any disclosure *how* to combine a mobile device with a camera. Thus, in my opinion, a POSITA would understand that Ausems does not disclose how to transmit digital photographs from a mobile device to a mobile information channel.

3. Ground 3, the Ground 1 Prior Art in Light of Fransioli does not Render Claims 21 and 22 of the '336 Patent Obvious

194. I am currently offering no opinion with respect to Ground 3.

195. I reserve the right to supplement my opinions on this Ground if the situation changes.

E. 247 IPR

1. Ground 1, Neibauer in View of Miller, Cheng, and Squibbs does not Render Claims 1-25 of the '801 Patent Obvious

196. Due to the similarity of Ground 1 of the 246 IPR and the 247 IPR, I incorporate my opinions from Paragraph 177 above, as if fully set forth here.

197. Due to the similarity of Ground 1 of the 246 IPR and the 247 IPR, I incorporate my opinions from Paragraph 178 above, as if fully set forth here.

198. Due to the similarity of Ground 1 of the 246 IPR and the 247 IPR, I incorporate my opinions from Paragraph 179 above, as if fully set forth here.

199. Due to the similarity of Ground 1 of the 246 IPR and the 247 IPR, I incorporate my opinions from Paragraph 180 above, as if fully set forth here.

200. Claim 1 of the '801 Patent recites that a "user can share access to content with a plurality of additional users[]" through its "mobile information channel." The claim also recites "inserting content…into the mobile information channel[,]" "receiving additional content relating to the mobile information channel… via one or more respective mobile devices[,]" and "inserting at least a portion of the additional content into the mobile information channel[.]"

201. Due to the similarity of Ground 1 of the 246 IPR and the 247 IPR, I incorporate my opinions from Paragraph 182 above, as if fully set forth here.

202. Due to the similarity of Ground 1 of the 246 IPR and the 247 IPR, I incorporate my opinions from Paragraph 183 above, as if fully set forth here.

203. Due to the similarity of Ground 1 of the 246 IPR and the 247 IPR, I incorporate my opinions from Paragraph 184 above, as if fully set forth here.

204. Due to the similarity of Ground 1 of the 246 IPR and the 247 IPR, I incorporate my opinions from Paragraph 185 above, as if fully set forth here.

205. Due to the similarity of Ground 1 of the 246 IPR and the 247 IPR, I incorporate my opinions from Paragraph 186 above, as if fully set forth here.

206. Due to the similarity of Ground 1 of the 246 IPR and the 247 IPR, I incorporate my opinions from Paragraph 187 above, as if fully set forth here.

207. Due to the similarity of Ground 1 of the 246 IPR and the 247 IPR, I incorporate my opinions from Paragraph 188 above, as if fully set forth here.

208. Due to the similarity of Ground 1 of the 246 IPR and the 247 IPR, I incorporate my opinions from Paragraph 189 above, as if fully set forth here.

209. Due to the similarity of Ground 1 of the 246 IPR and the 247 IPR, I incorporate my opinions from Paragraph 190 above, as if fully set forth here.

210. I disagree with Meta's argument that combining Cheng with Neibauer, renders Claim 1's "mobile information channel" obvious. Pet. at 21-26.

211. As I opined above, Cheng discloses *transmitting* content *to* a mobile device, but it does ***not*** teach anything with respect to *receiving* content *from* a

mobile device.

212. In my opinion, the proposed combination of Neibauer and Cheng may teach one-way transmission of content *to* a mobile device. But this does not meet Claim 1's requirements of "inserting content… into the mobile information channel[,]" "receiving additional content relating to the mobile information channel… via one or more respective mobile devices[,]" and "inserting at least a portion of the additional content into the mobile information channel[]." As I opined above, Cheng discloses reformatting webpages and transmitting those reformatted web pages to mobile device—it does not teach the feature required here.

213. As I have also opined above, Neibauer does not teach or suggest Claim 1's "providing an interface permitting a first user to control activation of a mobile information channel through which the first user can share access to content with a plurality of additional users." I stand by that opinion.

214. A POSITA in 2002 would have understood the Challenged Patents' specification to require Claim 1's mobile information channel to supports sharing content between a "wide variety" of mobile devices, including "typical mobile devices" with "limited display space and navigational capabilities." '801 Patent 1:44-45.

215. I disagree with Meta's argument that Neibauer teaches or suggest this

feature. As I opined above, a POSITA in 2002 would not have looked to Neibauer to solve the problems addressed by the Challenged Patents. But even if they would have, a POSITA would have understood Neibauer to describe content sharing using a "conventional laptop." But that does not suggest anything related to Claim 1's mobile information channel, which must support content sharing between a "wide variety" of devices, including those with technical capabilities more limited than the abilities of a conventional laptop.

216. I also disagree that combining Cheng with Neibauer teaches the required limitation. As I opined above, Cheng only discloses *transmitting* content *to* a mobile device—it does not teach *receiving* content *from* a mobile device, as would be required for content ***sharing***.

217. Thus, it is my opinion that neither Neibauer alone, nor Neibauer in combination with Cheng, teaches Claim 1's limitation of "providing an interface permitting a first user to control activation of a mobile information channel through which the first user can share access to content with a plurality of additional users [.]"

218. Similarly, even if a POSITA were to consider Neibauer, that reference does not teach Claim 1's "activating the mobile information channel responsive to input received from the first user via the interface []" limitation.

219. As I previously opined, the specification makes clear that Claim 1's

mobile information channel is required to support content sharing between a "wide variety" of mobile devices, including "typical mobile devices" with "limited display space and navigational capabilities." '801 Patent 1:44-45.

220. For the reasons stated in Paragraph 215 above, it is my opinion that Neibauer does not teach or suggest this feature. I incorporate those opinions here by reference.

221. For the reasons stated in Paragraph 216 above, it is my opinion that a POSITA in 2002 would not have understood Meta's proposed combination of Cheng with Neibauer to teach the referenced limitation. I incorporate those opinions here by reference.

222. Thus, it is my opinion that neither Neibauer alone, nor Neibauer in combination with Cheng, teaches Claim 1's limitation "activating the mobile information channel responsive to input received from the first user via the interface[.]"

223. Therefore, it my opinion that the prior art combinations of Meta's Ground 1 do not render obvious Claim 1 or any of the claims that depend from it.

224. Likewise, even if a POSITA were to consider Neibauer, that reference does not teach Claim 1's limitation "inserting content provided by the first user into the mobile information channel[]."

225. As I previously opined, the specification makes clear that Claim 1's

mobile information channel is required to support content sharing between a "wide variety" of mobile devices, including "typical mobile devices" with "limited display space and navigational capabilities." '801 Patent 1:44-45.

226. For the reasons stated in Paragraph 215 above, it is my opinion that Neibauer does not teach or suggest this feature. I incorporate those opinions here by reference.

227. For the reasons stated in Paragraph 216 above, it is my opinion that a POSITA in 2002 would not have understood Meta's proposed combination of Cheng with Neibauer to teach the referenced limitation. I incorporate those opinions here by reference.

228. Thus, it is my opinion that neither Neibauer alone, nor Neibauer in combination with Cheng, teaches Claim 1's limitation "inserting content provided by the first user into the mobile information channel[.]"

229. Therefore, it my opinion that the prior art combinations of Meta's Ground 1 do not render obvious Claim 1 or any of the claims that depend from it.

230. Even if a POSITA were to consider Neibauer, that reference does not teach Claim 1's "receiving additional content relating to the mobile information channel from one or more of said additional users via one or more respective mobile devices associated with at least one wireless network[]."

231. As I previously opined, the specification makes clear that Claim 1's

mobile information channel is required to support content sharing between a "wide variety" of mobile devices, including "typical mobile devices" with "limited display space and navigational capabilities." '801 Patent 1:44-45.

232. For the reasons stated in Paragraph 215 above, it is my opinion that Neibauer does not teach or suggest this feature. I incorporate those opinions here by reference.

233. [reserved]

234. For the reasons stated in Paragraph 216 above, it is my opinion that a POSITA in 2002 would not have understood Meta's proposed combination of Cheng with Neibauer to teach the referenced limitation. I incorporate those opinions here by reference.

235. Additionally, a POSITA in 2002 would not have understood Neibauer to teach Claim 1's limitation "receiving additional content relating to the mobile information channel… via one or more respective mobile devices associated with at least one *wireless network*[]." For example, as I opinioned above, FIG. 1A of the '801 Patent shows that Claim 1's "wireless network" is a network *separate from the internet* that facilitates connection to the internet by a mobile device. But Meta's argument conflates the internet with Claim 1's wireless network. It is my opinion that a POSITA would not have understood the wireless network of Claim 1 to the same things as the Internet.

236. Thus, it is my opinion that neither Neibauer alone, nor Neibauer in combination with Cheng, teaches Claim 1's limitation "receiving additional content relating to the mobile information channel from one or more of said additional users via one or more respective mobile devices associated with at least one wireless network[.]"

237. Therefore, it my opinion that the prior art combinations of Meta's Ground 1 do not render obvious Claim 1 or any of the claims that depend from it.

238. Likewise, even if a POSITA were to consider Neibauer, that reference does not teach Claim 1's limitation "inserting at least a portion of the additional content into the mobile information channel []."

239. As I previously opined, the specification makes clear that Claim 1's mobile information channel is required to support content sharing between a "wide variety" of mobile devices, including "typical mobile devices" with "limited display space and navigational capabilities." '801 Patent 1:44-45.

240. For the reasons stated in Paragraph 215 above, it is my opinion that Neibauer does not teach or suggest this feature. I incorporate those opinions here by reference.

241. For the reasons stated in Paragraph 216 above, it is my opinion that a POSITA in 2002 would not have understood Meta's proposed combination of Cheng with Neibauer to teach the referenced limitation. I incorporate those

opinions here by reference.

242. Thus, it is my opinion that neither Neibauer alone, nor Neibauer in combination with Cheng, teaches Claim 1's limitation "inserting content provided by the first user into the mobile information channel[.]"

243. Therefore, it my opinion that the prior art combinations of Meta's Ground 1 do not render obvious Claim 1 or any of the claims that depend from it.

244. Even if a POSITA were to consider Neibauer, that reference also does not teach Claim 1's limitation "integrating into the mobile information channel information associated with at least one wireless networking functionality of said at least one wireless network[]."

245. As I previously opined, the specification makes clear that Claim 1's mobile information channel is required to support content sharing between a "wide variety" of mobile devices, including "typical mobile devices" with "limited display space and navigational capabilities." '801 Patent 1:44-45.

246. For the reasons stated in Paragraph 215 above, it is my opinion that Neibauer does not teach or suggest this feature. I incorporate those opinions here by reference.

247. For the reasons stated in Paragraph 216 above, it is my opinion that a POSITA in 2002 would not have understood Meta's proposed combination of Cheng with Neibauer to teach the referenced limitation. I incorporate those

opinions here by reference.

248. A POSITA in 2002 would not have understood Neibauer to teach Claim 1's limitation "integrating into the mobile information channel information associated with at least one wireless networking functionality of said at least one *wireless network*[]." For example, as I opinioned above, FIG. 1A of the '801 Patent shows that Claim 1's "wireless network" is a network *separate from the internet* that facilitates connection to the internet by a mobile device. But Meta's argument conflates the internet with Claim 1's wireless network. It is my opinion that a POSITA would not have understood the wireless network of Claim 1 to the same things as the Internet.

249. Thus, it is my opinion that neither Neibauer alone, nor Neibauer in combination with Cheng, teaches Claim 1's limitation "integrating into the mobile information channel information associated with at least one wireless networking functionality of said at least one wireless network [.]"

250. Therefore, it my opinion that the prior art combinations of Meta's Ground 1 do not render obvious Claim 1 or any of the claims that depend from it.

251. Claim 3 depends from Claim 1. It is my understanding from counsel that this means that Claim 3 incorporates all of the limitations of Claim 1. In addition, Claim 3 recites "wherein integrating into the mobile information channel information associated with at least one wireless networking functionality of said

at least one wireless network comprises: obtaining location information of a given one of the mobile devices from which at least a portion of the additional content is received; and inserting content into the mobile information channel based on the obtained location information."

252. Claim 4 depends from Claim 1. Therefore, Claim 4 incorporates all of the limitations of Claim 1. In addition, Claim 4 recites "wherein integrating into the mobile information channel information associated with at least one wireless networking functionality of said at least one wireless network comprises: obtaining product-identifying information over said at least one wireless network; and inserting content into the mobile information channel based on the obtained product-identifying information."

253. As I opined above regarding Claim 1, none of Neibauer, Miller, Cheng, nor Squibbs, whether considered alone or in combination, teaches the claimed "mobile information channel." Because these combination does not teach the claimed "mobile information channel," it is my opinion that a POSITA would have understood the references to teach ***neither*** Claim 3's limitation "inserting content *into the mobile information channel* based on the obtained location information[]" ***nor*** Claim 4's limitation "inserting content *into the mobile information channel* based on the obtained product-identifying information []."

254. Therefore, it my opinion that the prior art combinations proposed by

Meta would not have rendered Claims 3 or 4 obvious to a POSITA in 2002.

255. Claim 15 dependents from Claim 1 and therefore incorporates all of Claim 1's limitations. In addition, Claim 15 recites "wherein the mobile information channel comprises a collaborative workspace."

256. Claim 16 dependents from Claim 1 and therefore incorporates all of Claim 1's limitations. In addition, Claim 16 recites "permitting the first user to establish a title for the mobile information channel."

257. Claim 17 dependents from Claim 1 and therefore incorporates all of Claim 1's limitations. In addition, Claim 17 recites "wherein the mobile information channel comprises a chat channel facilitating interaction between the first user and the plurality of additional users."

258. Claim 18 dependents from Claim 1 and therefore incorporates all of Claim 1's limitations. In addition, Claim 18 recites "wherein the mobile information channel is associated with an entertainment-related entity."

259. Claim 20 dependents from Claim 1 and therefore incorporates all of Claim 1's limitations. In addition, Claim 20 recites "wherein the mobile information channel is associated with a mobile device application."

260. As I opined above regarding Claim 1, none of Neibauer, Miller, Cheng, nor Squibbs, whether considered alone or in combination, teaches the claimed "mobile information channel." Because these combination does not teach

the claimed "mobile information channel," it is my opinion that a POSITA would have understood the references to teach ***none of*** Claim 15's limitation "wherein the *mobile information channel* comprises a collaborative workspace," ***nor*** Claim 16's limitation "permitting the first user to establish a title for the *mobile information channel*[]," ***nor*** Claim 17's limitation "wherein the *mobile information channel* comprises a chat channel facilitating interaction between the first user and the plurality of additional users[]," ***nor*** Claim 18's limitation "wherein the *mobile information channel* is associated with an entertainment-related entity[]," ***nor*** Claim 20's limitation "wherein the *mobile information channel* is associated with a mobile device application[]."

261. Therefore, it my opinion that the prior art combinations proposed by Meta would not have rendered Claims 15 through 20 obvious to a POSITA in 2002.

262. [reserved]

263. [reserved]

264. [reserved]

265. [reserved]

2. Ground 2, the Ground 1 Prior Art in Light of Harvey does not Render Claims 1-25 of the '801 Patent Obvious

266. I understand from counsel that Meta's arguments incorporating the Harvey reference relate only to claim construction positions from the district court

litigation, which neither party is asserting in these IPRs. Counsel has instructed me that, because neither party is asserting the district court litigation positions here, that I may consider Ground 2 to be moot. As such, I do not offer an opinion regarding Ground 2. Nonetheless, my review of Harvey leaves me of the opinion that it does not remedy the deficiencies of the prior art combinations on which I have opined above. Though I am offering no opinion on Ground 2, I reserve the right to supplement the Declaration and offer an opinion if the situation changes such that Ground 2 or Harvey becomes relevant.

F. 248 IPR

1. Ground 1, Neibauer in View of Cheng, and Squibbs does not Render Claims 19-20 or 22-23 of the '039 Patent Obvious

267. For reasons I outline above, I agree that the claim limitations "receiving . . . from a mobile device" and "permitting interaction between a user of the mobile device and one or more additional users" would have been understood by a POSITA in 2002 to refer to the upstream transfer of data (such as photographs) from a mobile device running the Yahoo! Clubs website, as disclosed in Neibauer. Neither Neibauer alone nor Neibauer combined with Cheng and Squibbs teach content sharing using a mobile device.

268. Claim 19 includes a limitation that reads:

> ***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***;

‘’039 Patent, Claim 19 (emphasis added). Even if a POSITA in 2002 would have bothered to study Neibauer, Neibauer does not teach this limitation.

269. I disagree with Meta’s suggestion that the Yahoo! Clubs functionalities discussed in Chapter 21 of Neibauer teach either the claimed server that receives content “from a mobile device” or the “application-based information channel” that “permit[s] interaction between a user of the mobile device and one or more additional users for sharing content between the first user and one or more additional users.” 248 Pet. at 13-19.

270. As I have opined above, the specification of the Challenged Patents explains that in 2002 the limited display space and navigational capabilities of mobile devices presented a challenge with regard to creating, publishing, distributing, or otherwise managing information content via the mobile devices. *See* ’039 Patent, 1:34-48. The specification specifically distinguishes from “conventional techniques” for performing these functions including web site authoring tools and web logging (“blogging”) tools that were not optimized for use when generating content for shared access via mobile devices because they failed to provide suitable integration of messaging, collaboration, location-based services, and other wireless networking functionalities with the generation of content. *Id*.,

1:53-61. Thus, a POSITA at the time would have understood the focus of the Challenged Patents to include enabling mobile devices to benefit from "creating, publishing, distributing or otherwise managing information content so as to provide optimal presentation consistent with *the limited display space and navigational capabilities of typical mobile devices*." *Id*., 1:34-48. A POSITA would have considered the embodiments of the Challenged Patents to have been irrelevant for devices that implemented "conventional techniques," such as desktop devices, laptops, and other devices without the limited display space and limited navigational capabilities of typical mobile devices.

271. I understand from counsel that the Board chose to implement these proceedings, in part, because the Challenged Patents include a laptop computer in their list of devices that could be "mobile device," and the Board believed a POSITA would have known a laptop computer could be used to run a web browser and visit Yahoo! Clubs. But as I have opined above, a POSITA at the time would have understood the specification to make clear that "mobile device" was not referring to a traditional laptop computer, in part, because performing the claimed methods of the Challenged Patents would not solve any of the issues described in the specification if they were being run on a traditional laptop.

272. More specifically, it is my opinion that reading a traditional (i.e., full capability) laptop computer as a "mobile device" is an inaccurate interpretation of

the term "mobile device," when considered in light of the specification, because performing the claimed methods on a traditional laptop computer would not solve the "important challenge" of "provid[ing] optimal presentation consistent with the limited display space and navigational capabilities of typical mobile devices." '309 Patent, 1:44-48. Indeed, the general understanding of the term "mobile device" at the time of invention, is shown by the prior art references on which Meta relies. *See*, *e.g.*, Neibauer at 111 (characterizing mobile devices as "Pagers, Cell phones, Web phones, Personal digital assistants (PDAs)" and cautioning users of the Yahoo! Mobile feature that to perform functions using Yahoo! Mobile, the user will need a PDA that uses a mobile operating system (e.g., Palm OS Windows CE)); Cheng, 5:11-35 (characterizing mobile devices as handheld/portable devices, such as Palm operating system devices, smart phones that typically have a small screen and limited memory); Squibbs ¶108 (describing a mobile device as "a cellular-radio-based mobile device (phone or e.g., a PDA with mobile radio capability)").

273. I disagree that a POSITA in 2002 would have used Neibauer and understood the Yahoo! Clubs feature to teach to the limitation of "receiving . . . from a mobile device, content for insertion into a previously established application-based information channel" that "permit[s] interaction between a user of the mobile device and one or more additional users for sharing content between

the first user and one or more additional users." In fact, Neibauer contains no teaching related to providing such functionality via mobile devices, as required by the Challenged Patents. I have seen no teaching that would suggest to me that a POSITA would have understood that the Yahoo! Clubs functionality could have been supported by users accessing the services on a mobile device. On the contrary, Yahoo! Clubs are more similar to the web site authoring tools and web blogging tools described as "conventional techniques," which were described in the specification as not being optimized for use when generating content for shared access via mobile devices. '039 Patent, 1:53-61.

274. In my opinion, Neibauer's shortcoming regarding disclosing receiving content from and permitting interaction with a user of a mobile device, as required by the claim limitations, is not cured by the "Yahoo! Mobile" and "Yahoo! To Go" functionalities. Although some features of Yahoo! may have been accessible by a mobile device, the Challenged Patents' limitation of "sharing content" would have suggested a bi-directional exchange to a POSITA at the time. But the "Yahoo! Mobile" and "Yahoo! To Go" functionalities were limited to one-way access for *viewing* information originating with the Yahoo! software platform. *See* Neibauer, pp. 156, 166-167. I see nothing in Neibauer that would suggest to a POSITA at the time that the Yahoo! Clubs feature would have allowed mobile users to actually *post* content, even if it were offered through the Yahoo! Mobile or Yahoo! To Go

services. Instead, Neibauer presents the Yahoo! Mobile and Yahoo! To Go features as providing only unidirectional access to view information from a limited number of Yahoo! Services, which excluded Yahoo! Clubs and Yahoo! Maps.

275. Based on my experience at the time, I am of the opinion that it was outside the capabilities of mobile devices at that time to provide user-interactive features. Mobile devices at the time did meet the requirements such as required screen size, mobile device memory, processing power, and wireless bandwidth. A comparison of the content and features of Yahoo! Mobile and Yahoo! To Go that were capable of being displayed on a mobile device (e.g., PDA) at the time to the features of the club pages suggests that providing such interactive features would not have been technically feasible.

276. A POSITA in 2002 would have understood that the proxy server disclosed in Cheng also did not support two-way content sharing for mobile devices. As I discussed above, Cheng discloses only unidirectional re-formatting of a conventional source website for viewing on mobile device. Cheng, 4:56-5:10. Cheng does not teach the ability to send content for insertion into a previously established application-based information channel that permits interaction between a mobile device user and others, such that the content is integrated into the previously established application-based information channel. Cheng merely suggests a system for translating a conventional web page so that they are viewable

on a mobile device—it does not contain any teaching regarding an exchange of information from a mobile device back to the conventional web page. It is especially clear that Cheng does not teach transmitted information back to a previously established application-based information channel permitting interaction between a mobile device user and others.

277. In my opinion, Meta's arguments alleging that adding photographs in Yahoo! Clubs is "receiving content" and that the photo sharing feature is an "application-based information channel" would not be supported by a POSITA at the time in part because the M-channel described in the Challenged Patents corresponds to *a mobile site or a portion thereof*. In other words, I am of the opinion that Yahoo! Clubs fails to teach an application-based information channel that permits interaction with a user of a mobile device, at least in part because Yahoo! Clubs is *not* a mobile site or a portion thereof that permits interaction with a mobile device. In fact, Yahoo! Clubs is a traditional website that cannot be implemented on a mobile device having limited display space and navigational capabilities. Put another way, Yahoo! Clubs would suffer from the same issues identified in the Challenged Patents for managing content provided from mobile devices using "conventional techniques." '039 Patent, 1:53-61.

278. As I have opined above, in 2002 a laptop computer interacting with an application-based information channel to insert content would not suffer from any

of the issues described in the specification related to "provide optimal presentation consistent with *the limited display space and navigational capabilities of typical mobile devices*." '039 Patent, 1:34-48. In my experience, even at that time, conventional laptop computers presented visualizations much the same fashion as desktop computers. A POSITA would only have understood Neibauer to describe the Yahoo! Clubs feature as being accessible via conventional computing devices. Thus, being unencumbered by the display and navigational limitations of typical mobile devices, the Yahoo! Clubs feature should not be understood to be an application-based information channel permitting interaction between a mobile device user and others.

279. I understand Meta to be arguing that it would have been obvious to a POSITA to make Yahoo! Clubs available for use on a mobile device because Yahoo! other services available for use on PDAs through Yahoo! Mobile and Yahoo! To Go. But at the time, those Yahoo! services were primitive and their use on PDS suffered from the "limited memory, slow data transmission, and small screens" of mobile devices at the time. Examples provides in Neibauer makes this limited capability clear:

Neibauer, p.171.

280. Because memory, bandwidth, and screen space were at a premium at the time, these examples were designed to fit the PDA screen and used text. These examples pale in comparison to the cited desktop browser views of the Clubs functionality:

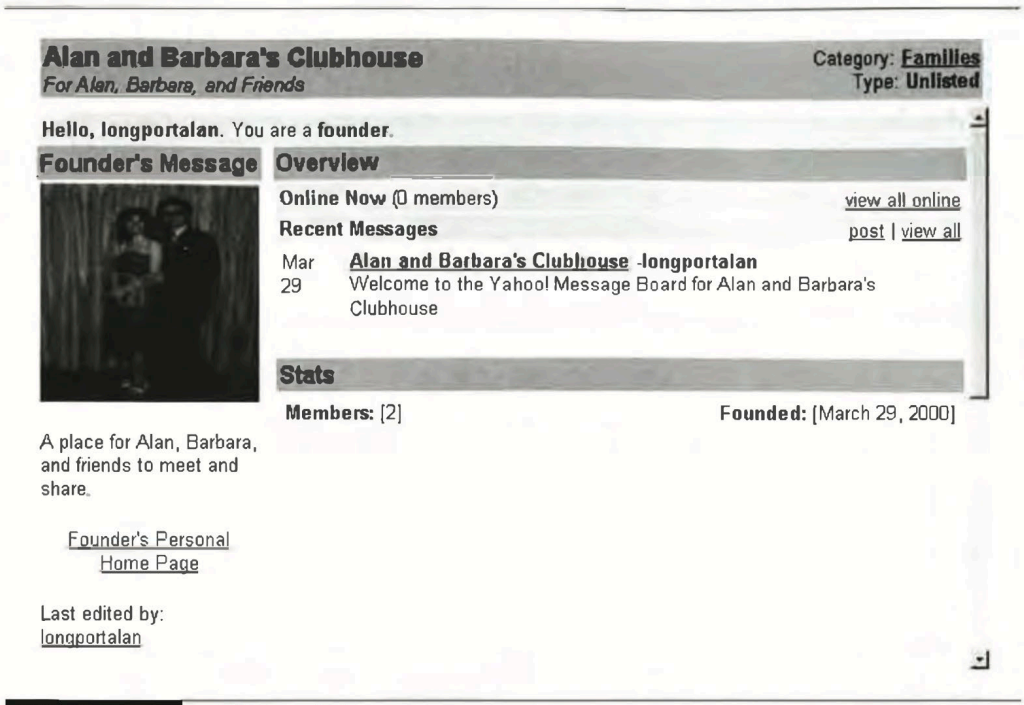


FIGURE 21-13 A Personal club

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

Category: James Bond Series
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. 483 (Figure 21-13, club home page), p. 478 (Figure 21-10, club photo album).

281. As I discussed in more detail above, Neibauer's description of Yahoo Mobile! and Yahoo! To Go does not show any functionality comparable to the two-way sharing of photographs through the Yahoo! Clubs website.

282. I have seen no evidence to support that a POSITA at the time would have considered it obvious to utilize the Clubs through Yahoo Mobile and/or Yahoo! To Go features. As I opined above, I am of the opinion that Yahoo! did not provide Yahoo! Clubs functionality through Yahoo Mobile and Yahoo! To Go at the time because contemporaneous mobile devices were in sufficient to supporting

them.

283. A POSITA at the time would not have been motivated to combine Neibauer and Cheng in the way suggested by Meta. In part, this is because Meta has interpreted Neibauer to teach the required limitations, so is unclear what use a POSITA would have found for Cheng's translation proxy server. Nonetheless, I am of the opinion that the combination would not result in the claimed invention of the Challenged Patents, even if the necessarily motivation to combine was present.

284. As I discussed above when describing Cheng, Cheng's conversion process applied ***both*** to the ***format*** of a web page, ***and*** to its ***content*** and ***capabilities***.

285. As I described, Cheng discloses that its website translator for mobile devices limited by the capabilities of those devices. To address these capability limitations, Cheng provides examples of "SW-Transforms" to convert, downscale, and/or delete content from a website so that the remaining content could be displayed on a mobile device. Cheng's down conversion process involved, for example, removing HTML tags from the original web page to accommodate the capabilities of the browser on the mobile device presenting the reformatted web page 122. *See* Cheng, 12:55-64.

286. As I opined above, to perform web browsing functions mobile devices at the time employed protocols (including Wireless Application Protocol (WAP),

iMode, compact HTML, and others) to facilitate access to mobile versions of traditional websites. *See*, *e.g.*, Ex. 2017; Ex. 2018. Such protocols enabled mobile devices, limited by processing power, memory, storage, screen size, bandwidth, and input methods, to access mobile versions of websites *but provided limited support for complex elements like tables, jpeg images, and fonts*. *See* Ex. 2019.

287. Based on my experience at the time, based on the protocols discussed above, a POSITA would have looked to Cheng to remove HTML tags from web pages that included input elements related to sending content to a server via the mobile device based on the mobile device's inability to support those types of functions. In other words, it is more likely that Cheng would have been used to ***remove*** the ability to add photos to a mobile version of Yahoo! Clubs when down converting the Yahoo! Clubs webpage for mobile device use. Even then, I am not aware of any evidence that Cheng's translation tool could have been successfully applied to the Yahoo! Clubs webpages or that the functionalities described would have continued to work.

288. Either way, Cheng failed to teach upstream data transfers of content for insertion into an application-based information channel permitting interaction between a mobile device user and others. In other words, as I described above, Cheng only describes transmission of a request 106 for a website to be displayed on a mobile device—but it does *not* provide any mechanism for sending content

for insertion into a channel from the mobile device in the other direction (i.e., sending data from the mobile device to the server hosting the website). Cheng describe the request 106 including an HTTP request for accessing a web page 104, so that a reformatted web page 122 is returned to the mobile device. *See* Cheng, 3:58-63, 5:46-49. Thus, in the proposed combination, the request 106 would merely be an attempt to access the Yahoo! Clubs page. It cannot be construed as being the same as content that is designated for insertion into a previously established application-based information channel permitting interaction between a mobile device user and others. Based on my experience at the time, a POSITA—if they had happened to look up Neibauer at all, let alone have been motivated to attempt to combine it with Cheng—would have had no reasonable expectation of success in enabling Cheng or Neibauer to provide functions related to using a mobile device to send any type of content for insertion into an application-based channel permitting interaction with the mobile device. In part, this is because Cheng only describes a process for converting web pages published on the Internet for viewing on a mobile device.

289. I am not aware of any evidence that the reformatted web page 122 provided to the mobile device in Cheng would include the ability to insert content into an application-based information channel permitting interactions with a mobile device. Nor, for the reasons I described above, can I imagine that a

POSITA at the time would have believed that to be true.

290. As I opined above, neither Neibauer nor Cheng, either alone or in combination, teaches a mobile device capable of sending content for insertion into the claimed channel from a mobile device. I also am not aware of any evidence illustrating that this combination would enable a mobile device to provide textual information for insertion into the Yahoo! Clubs webpage.

291. As I opined above, the specifications of the Challenged Patents are clear that the "wireless network" is a network connected to *but different than the Internet*. *See*, *e.g.*, '039 Patent, 3:42-46, FIG. 1A.

292. The specification explains that mobile devices 15-1…15-n are coupled to wireless network 12, which is coupled to Internet 14. *Id*. Furthermore, the specification provides examples of information associated with a wireless network functionality, such as information specifying a messaging action *implementable over the wireless network*, information specifying a collaboration action *implementable over the wireless network*, and information specifying location-based services *implementable over the wireless network*. *Id*., 5:57-63. Finally, the specification explains that one type of wireless networking functionality includes providing access to the Internet. *Id*., 1:38-43.

293. A POSITA at the time would have recognized that the '039 Patent's limitation regarding information of the wireless networking functionalities

corresponds to information related to capabilities provide by the wireless network 12, *not* the Internet 14. Therefore, Neibauer or Cheng would need to disclose a functionality that is capable of being performed by a mobile device accessing the wireless network in order to teach "information associated with at least one wireless functionality of the mobile device." A POSITA would have understood the claim limitation to require that functionality rely on the wireless network that ***may*** connect the mobile device to the Internet and to exclude functionalities that are only implementable using the Internet without the wireless network.

294. Therefore, it is my opinion that the textual information provided in Neibauer for insertion into Yahoo! Clubs is ***not*** a wireless functionality implementable using a mobile device via a wireless network (e.g., independent of the Internet). As I discussed above, Yahoo! Clubs is only accessible via a conventional computer and hosted on an Internet website. Neibauer, p.473 (referencing http://clubs.yahoo.com/). In other words, all of the functionalities Neibauer describes are implementable over the Internet. Neibauer never teaches using he wireless network or the wireless network functionalities of the mobile device. Neibauer never suggests that a mobile device can use a separate wireless network to connect to the Internet and provide content for insertion into Yahoo! Clubs. As I opined above, Yahoo! Mobile is limited to receiving events and alerts pushed from the Internet to the mobile device. *See* Neibauer, pp.166-180. I have

seen no evidence of Yahoo! Mobile being capable of providing the ability for mobile device users to provide any content for insertion into Yahoo! Clubs.

295. As I discussed above, Cheng describes sending a request 106 for accessing a web page 104, but it never provides the ability to send a message or collaboration action towards the servers hosting the web page 104. Cheng, 3:58-63. Therefore, I am of the opinion Cheng does not disclose a wireless networking functionality of a mobile device implementable over a wireless network—other than the ability to send a website request, which is not integrated into a channel for use by the mobile device.

296. Because neither Neibauer nor Cheng provides the ability to send content from a mobile device for insertion into the mobile device accessible channel, the device described Squibbs would need to disclose this feature to render the proposed combination of Neibauer, Cheng, and Squibbs obvious.

297. But Squibbs describes sending location information of a cell phone 20 to a PC 5 or a network store 43/45 for storage in location log 100, which is eventually retrieved by the PC 5. Squibbs, ¶¶113-115. Squibbs never provides location information or any other content for insertion into a channel permitting interactions between a mobile user and other users. Squibbs only describes retrieving the location information for use by an album program 50, which is only described as being executed on a PC 5. *Id.*, ¶0101.

298. In considering the proposed combination of Neibauer and Squibbs, I first note that a POSITA would understand that the mobile device that Meta suggests for providing the photo sharing feature of Neibauer cannot be the same mobile device of Squibbs. First, this is because Squibbs uses separate devices to send photo data and location data to the network store. Second, neither device sends the data for insertion or integration into a channel permitting interactions with a mobile device. As I discussed above, Niebauer is described as being accessible with the Internet and a conventional computer, and Squibbs's photo data and location data are only accessible to the PC 5—another conventional computer.

299. As I discussed above, counsel has informed me that the motivation to combine references cannot come simply from hindsight. In other words, I understand that something in the prior art as a whole much suggest the desirability of the combination. In my opinion, nothing other than impermissible hindsight would motivate a POSITA to combine Neibauer, Cheng, and Squibbs.

300. In my opinion, nothing in these prior art references suggests the proposed combination. I disagree that it would have been obvious to modify the Yahoo! Mobile feature (which only describes mobile devices as receiving limited data types) to display the complex map graphics of Yahoo! Maps *and* to present location information on the displayed maps as described by Squibbs. I have seen no evidence that a POSITA would have understood the desirability of making the

proposed modification. For example, the Neibauer photo sharing feature of Yahoo! Clubs only describes including a name and description of the photo. *See* Neibauer, p.478 and FIG.21-10. Nowhere does Neibauer discuss the desirability of adding location data to the added photos.

301. As another example, Neibauer provides an adequate means for organizing photographs by teaching organizing photos into user-defined albums that are added by the user. *Id*., p.479. But Meta argues that adding location data would provide a benefit by improving the classification of the photos, which Squibs explains has been a problem for families and individuals needing to have a logical organization that is valid over a lifetime and intuitive for the user. *See* Squibbs, ¶2. Because Neibauer never describes its classification technique for organizing photos as problematic, and since none of the photos or albums Neibauer describes are related to a location (e.g., Blueraja's BOND GIRL ALBUM, James Bond of FIG. 21-10), in my opinion a POSITA at the time would not have been motivated to combine Neibauer with Squibbs to include location information. *See* Neibauer, p.477. The only motivation I can see for this combination at the time is hindsight based on the teachings of the Challenged Patens.

302. Similarly, although Neibauer describes annotating a map to identify objects of interest, none of the illustrated annotations are related to locations of photographs, as suggested by Squibbs. Neibauer, pp.226-228. Neibauer never

suggests that it is desirable to present photograph locations on its map, and Squibbs never suggests the desirability of sharing location data for photographs to be shared on an Internet-based platform for others to view. Rather, Squibbs is limited to viewing on a PC 5 for an individual user to provide a logical organization of photos that is valid over a lifetime and intuitive for the user. *See* Squibbs, ¶¶2 and 112. Thus, this combination does not appear to be based on anything within either the Neibauer nor Squibbs references regarding the desirability of the proposed combination. The only motivation I can determine is hindsight bias.

303. As I opined above, none of the prior art references disclose inserting or integrating content and a wireless networking functionality of a mobile device received from the mobile device into a previously established application-based information channel permitting interaction between a user of a mobile device and one or more additional users. Viewing Neibauer's club photo sharing feature as the previously established application-based information channel does ***not*** teach the required limitation because the photo sharing feature does not permit interaction between a user of a mobile device and one or more additional users. Similarly, Cheng does ***not*** meet this limitation because Cheng merely converts original web page 104 into reformatted webpage 122 and never provides the functionality for sending content for insertion or integration into a channel permitting interaction between a mobile device user and other. Cheng, 5:46-49. Finally, Squibbs only

sends location data to a network store 43/45 or the PC 5 for use by an album program 50 executable on the PC 5—it does ***not*** meet he limitation because it never provides access, let alone content, to a channel permitting interaction between a mobile device user and other. Squibbs, ¶¶112-115.

304. Even ignoring that the proposed combination appears to be motivated by hindsight, the combination does not disclose integrating content and a wireless networking functionality of a mobile device received from the mobile device into a previously established application-based information channel permitting interaction between a user of a mobile device and one or more additional users. As I described above, the photo sharing feature of Neibauer, the maps feature of Neibauer, and the maps feature of Squibbs are not capable of permitting a user of a mobile user to interact with one or more additional users. Furthermore, as I already opined, Neibauer and Squibbs are only accessible via conventional computers—***not*** mobile devices with limited display space and limited navigational capabilities.

305. None of the prior art references disclose integrating content and a wireless networking functionality of a mobile device received from the mobile device into a previously established application-based information channel permitting interaction between a user of a mobile device and one or more additional users. Similarly, none disclose inserting additional content into the previously established application-based information channel permitting

interaction between a user of a mobile device and one or more additional users.

306. More specifically, none of the references include an information channel that permits interaction between a mobile device user and additional users and thus cannot disclose inserting additional content into the previously established application-based information channel.

307. [reserved]

308. [reserved]

2. Ground 2, Neibauer in View of Cheng, Squibbs, and Bandera does not Render Claim 21 of the '039 Patent Obvious

309. Claim 21 depends from Claim 19. I understand from counsel that this means Claim 21 incorporates all of the limitations of Claim 19. As I have already opined, a POSITA at the time would not have found Claim 19 to be obvious in light of the combination of Neibauer, Cheng, and Squibbs. Because Claim 21 incorporates all of the previously discussed limitations, that same prior art combination without more cannot render Claim 21 obvious. Adding Bandera to the previously analyzed combination would not have rendered Claim 21 obvious to a POSITA at the time. Like the other references, Bandera does not disclose integrating content and a wireless networking functionality of a mobile device received from the mobile device into a previously established application-based information channel permitting interaction between a user of a mobile device and one or more additional users. Rather, Bandera only discloses sending location data

of a mobile device to a web server, which can then generate a webpage with advertising. Bandera, 6:46-7:8. That webpage does not integrate any content or wireless networking functionality into a previously established application-based information channel permitting interaction between a user of a mobile device and one or more additional users. In my opinion, a POSITA at the time viewing Bandera along with the combination of Neibauer, Cheng, and Squibbs would have found Claim 21 to be obvious.

3. Grounds 3-4: Non-Obviousness Based on Ground 1 and Harvey (Claims 19-20, 22-23); and Ground 2 and Harvey (Claim 21)

310. I understand from counsel that Meta's arguments incorporating the Harvey reference relate only to claim construction positions from the district court litigation, which neither party is asserting in these IPRs. Counsel has instructed me that, because neither party is asserting the district court litigation positions here, that I may consider Grounds 3 and 4 to be moot. As such, I do not offer an opinion regarding Grounds 3 and 4. Nonetheless, my review of Harvey leaves me of the opinion that it does not remedy the deficiencies of the prior art combinations on which I have opined above. Though I am offering no opinion on Grounds 3 and 4, I reserve the right to supplement the Declaration and offer an opinion if the situation changes such that Grounds 3 and 4 or Harvey becomes relevant.

G. 249 IPR

1. Ground 1, Neibauer in View of Ausems, Cheng, and Squibbs does not Render Claims 1-19 or 21-22 of the ’578 Patent Obvious

311. Claim 1 requires an “application-based information channel,” which supports content sharing between a wide variety of devices, including those (such as mobile telephone from the early 2000s) with significant technical limitations over a wireless network. As I opined in more detail above, Neibauer (i) is aimed at neophyte computer users, and (ii) does not teach design solutions of any kind. In my opinion, a POSITA in 2002 would not have relied on Neibauer for any reason. Ignoring those issues, Niebauer (at best) shows lay users how to use a “conventional laptop computer[]” to “visit web pages on the Internet[]” such as “the Yahoo! website[.]” 249 Pet. at 21. Even assuming the Board considers this low-level illustration of Neibauer, that “teaching” does not disclose, or even suggest, Claim 1’s “application-based information channel.”

312. The ’578 Patent emphasizes that one advantage of the disclosed technology is its ability to “operate independently of the user device operating system or other user device configuration parameters, such that a given user may author, create, publish, send, convey, share, receive, respond to, subscribe to, collaborate with, track, transact, maintain and manage personalized messaging content *from any type of user device* running any operating system.” ’578 Patent 19:12-18 (emphasis added).

313. The ’578 Patent includes a “wide variety” of devices that can utilize

the technology:

> The mobile devices 15 can collectively comprise a wide variety of different devices configurable for communication over the network 12. The term "mobile device" as used herein is intended to include, without limitation, any type of portable information processing device capable of being configured for communication over a network. Examples of mobile devices 15 utilizable in system 10 of FIG. 1A include a mobile telephone, a personal digital assistant (PDA), a palmtop computer, a hand-held computer, a laptop computer, a tablet computer, a global positioning system (GPS) receiver or other GPS-based navigational device, an MP3 player or other type of audio player, a pager, a watch or other timepiece, a camera, a portable game player, etc.

'578 Patent 4:43-55.

314. Claim 1 of the '578 Patent recites that a "user can share access to content with a plurality of additional users[]" through its "application-based information channel." The claim also recites "inserting content…into the application-based information channel[,]" "receiving additional content relating to the application-based information channel… via one or more respective mobile devices[,]" and "inserting at least a portion of the additional content into the application-based information channel[.]"

315. As I opined above, the claimed "application-based information channel," has to enable messaging between the "wide variety" of mobile devices disclosed. Those "mobile devices" include not only "a laptop computer" but also "a mobile telephone" and "a personal digital assistant (PDA)" (among other

devices). ’578 Patent 4:43-55.

316. The ’578 Patent begins by explaining that the focus of the disclosed technology is to expand content access via *mobile* devices:

> One of the most rapidly expanding aspects of wireless networking involves the accessing of information content over wireless networks via *web-enabled mobile devices*. Examples of such devices include *mobile telephones, personal digital assistants (PDAs), palmtop computers*, etc.

’578 Patent 1:32-36 (emphasis added). More specifically,

> An important challenge in this context relates to facilitating the process of creating, publishing, distributing or otherwise managing information content so as to provide optimal presentation *consistent with the limited display space and navigational capabilities of typical mobile devices*.

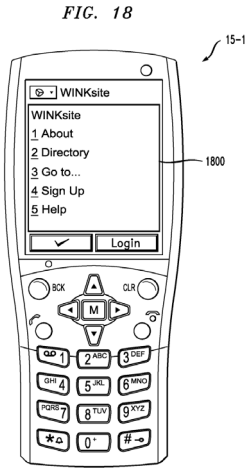
Id. 1:42-47 (emphasis added).

317. The focus of the ’578 Patent (and its claims) are technologies that enable content sharing on *mobile* devices with limited technical capabilities, which were previously incapable of enabling such functionality.

318. This construction is reinforced throughout the ’578 Patent. The patent illustrates using the claimed technology through a “web-enabled mobile telephone”:

> FIG. 18 shows an example mobile device 15-1 suitable for use in the system of FIG. 1A. *The mobile device 15-1 in this example is in the form of a web-enabled mobile telephone*, but as indicated previously herein, the invention does not require the use of any particular type or configuration of mobile device.

’578 Patent 15:20-25 (emphasis added). *See also* ’578 Patent FIG. 18:



319. In my opinion, implementing the technology of Claim 1 would have enabled the “typical mobile device” (like FIG. 18’s “mobile telephone”) to share and interact with content, despite its apparent “limited display space and navigational capabilities.”

320. Meta argues that because a “conventional laptop” could “run web browser software and visit web pages” like the “the Yahoo! website, including the clubs feature” discussed in Neibauer Chapter 21, this disclosure teaches Claim 1’s “application-based information channel.” 249 Pet. at 16. I disagree.

321. As I opined above, the invention’s primary focus is to enable content sharing by “typical mobile devices” with “limited display space and navigational capabilities.” ’578 Patent 1:45-46. Neibauer’s suggested use of a “conventional laptop” does not fulfill the invention’s aim. Even in the early 2000’s, the “conventional laptop” referenced in the Petition had “display space” and

"navigational capabilities" comparable to a desktop computer. As I explained above, at the time of the initial filing, a POSITA would not have understood a generic laptop to be a "mobile device" for at least the following reasons:

a. Laptops were increasingly powerful and matched the computational and storage capabilities of desktop computers.

b. The networking capabilities of laptops were equivalent to those of desktop computers, with a standard Ethernet port for a wired network connection.

c. Laptops with up to 17-inch screens were common, and screens of those sizes are comparable to computer monitors of the day.

d. While laptops did have reasonable battery life, laptop usage patterns were, and remain, such that most people tend to keep them plugged into a wall outlet, which would "fulfill the role of a desktop PC or Mac." *See* Ex. 2015.

See ¶ 43, *supra*. Contrary to Meta's suggestion, accessing the internet with a laptop does not teach Claim 1's "application-based information channel."

322. As I opined above, a "conventional laptop" accessing "the Yahoo! website" does not teach the claimed "application-based information channel," which enables messaging between a "wide variety" of mobile devices, including laptops *and* other, less-sophisticated devices.

323. I disagree with Meta's argument that combining of Cheng with Neibauer renders Claim 1's "application-based information channel" obvious. Pet. at 17-22.

324. As I opined above, though Cheng does disclose *transmitting* content

to a mobile device, it does ***not*** teach anything with respect to *receiving* content *from* a mobile device.

325. In my opinion, the proposed combination of Neibauer and Cheng may teach one-way transmission of content *to* a mobile device. But this does not meet Claim's requirements of "insertion [of at least one content item] into an application-based information channel [,]" and "the application-based information channel providing a second interface wherein two or more users share access to a plurality of content items including the at least one integrated content item[]" as in Claim 1. As I opined above, Cheng discloses reformatted web pages and transmitting those reformatted web pages to a mobile device—it does not teach the feature required here.

326. As I have opined above, Neibauer does not teach Claim 1's limitation "providing a first interface permitting designation of at least one content item, via a mobile device, for insertion into an application-based information channel, the at least one content item comprising media data captured by the mobile device[]". I stand by that opinion.

327. A POSITA in 2002 would have understood the Challenged Patents' specification to require Claim 1's application-based information channel to support sharing content between a "wide variety" of mobile devices, including "typical mobile devices" with "limited display space and navigational capabilities." '578

Patent 1:45-47.

328. I disagree with Meta's argument that Neibauer teaches this feature. As I opined above, a POSITA in 2002 would not have look to Neibauer to solve the problems addressed by the Challenged Patents. But even if they would have, a POSITA would have understood Neibauer to describes sharing content using a "conventional laptop." But that does not suggest anything with respect to Claim 1's application-based information channel, which must support content sharing between a "wide variety" of devices, including those with technical capabilities far more limited than a laptop.

329. I also disagree that combining Cheng with Neibauer teaches the referenced limitation. As I opined above, Cheng only discloses *transmitting* content *to* a mobile device—it does not teach *receiving* content *from* a mobile device, as would be required for content ***sharing***.

330. Thus, it is my opinion that neither Neibauer alone, nor Neibauer in combination with Cheng, teaches Claim 1's limitation of "providing a first interface permitting designation of at least one content item, via a mobile device, for insertion into an application-based information channel, the at least one content item comprising media data captured by the mobile device[.]"

331. Therefore, it is my opinion that the prior art combination of Meta's Ground 1 does not render obvious Claim 1 or any of the claims that depend from it.

332. Likewise, even if a POSITA were to consider Neibauer, that reference does not teach Claim 1's limitation "integrating the at least one content item and information associated with at least one wireless networking functionality of the mobile device to generate at least one integrated content item[]."

333. As I previously opined, the specification makes clear that Claim 1's application-based information channel is required to support content sharing between a "wide variety" of mobile devices, including "typical mobile devices" with "limited display space and navigational capabilities." '578 Patent 1:45-47.

334. For the reasons states in Paragraph 328 above, it is my opinion that Neibauer does not teach or suggest this feature. I incorporate those opinions here by reference.

335. For the reasons stated in Paragraph 329 above, it is my opinion that a POSITA in 2002 would not have understood Meta's proposed combination of Cheng with Neibauer to teach the referenced limitation. I incorporate those opinions here by reference.

336. Thus it is my opinion that neither Neibauer alone, nor Neibauer in combination with Cheng, teaches or suggests Claim 1's limitation "integrating the at least one content item and information associated with at least one wireless networking functionality of the mobile device to generate at least one integrated content item[.]"

337. Therefore, it is my opinion that the prior art combination of Meta's Ground 1 does not render obvious Claim 1 or any of the claims that depend from it.

338. Similarly, even if a POSITA were to consider Neibauer, that reference does not teach Claim 1's limitation "inserting the at least one integrated content item into the application-based information channel, the application-based information channel providing a second interface wherein two or more users share access to a plurality of content items including the at least one integrated content item."

339. As I previously opined, the specification makes clear that Claim 1's application-based information channel is required to supports content sharing between a "wide variety" of mobile devices, including "typical mobile devices" with "limited display space and navigational capabilities." '578 Patent 1:45-47.

340. For the reasons states in Paragraph 328 above, it is my opinion that Neibauer does not teach or suggest this feature. I incorporate those opinions here by reference.

341. For the reasons stated in Paragraph 329 above, it is my opinion that a POSITA in 2002 would not have understood Meta's proposed combination of Cheng with Neibauer to teach the referenced limitation. I incorporate those opinions here by reference.

342. Thus it is my opinion that neither Neibauer alone, nor Neibauer in

combination with Cheng, teaches or suggests Claim 1's "inserting the at least one integrated content item into the application-based information channel, the application-based information channel providing a second interface wherein two or more users share access to a plurality of content items including the at least one integrated content item."

343. Therefore, it is my opinion that the prior art combination of Meta's Ground 1 does not render obvious Claim 1 or any of the claims that depend from it.

344. For the same reasons I described above regarding Claim 1, it is my opinion that Meta's proposed combination of Neibauer, Ausems, Cheng, and Squibbs does not teach all of the limitations of Claim 9. Thus, a POSITA considering this proposed combination in 2002 would not have considered the combination to have rendered Claim 9 obvious.

345. Therefore, it is my opinion that the prior art combination of Meta's Ground 1 does not render obvious Claim 9 or any of the claims that depend from it. Claim 11 claims the "the apparatus of claim 9." Therefore, as I am of the opinion that Claim 9 is not rendered obvious by the prior art combination of Ground 1, I am also of the opinion that Claim 11 also has not been rendered obvious.

346. For the same reasons I described above regarding Claim 1, it is my opinion that Meta's proposed combination of Neibauer, Ausems, Cheng, and Squibbs does not teach all of the limitations of Claim 12. Thus, a POSITA

considering this proposed combination in 2002 would not have considered the combination to have rendered Claim 12 obvious.

347. Therefore, it is my opinion that the prior art combination of Meta's Ground 1 does not render obvious Claim 12 or any of the claims that depend from it. Claim 16 claims "a processing element [that] implements the steps of the method of claim 12." Therefore, as I am of the opinion that Claim 12 is not rendered obvious by the prior art combination of Ground 1, I am also of the opinion that Claim 16 also has not been rendered obvious.

348. For the same reasons I described above regarding Claim 1, it is my opinion that Meta's proposed combination of Neibauer, Ausems, Cheng, and Squibbs does not teach all of the limitations of Claim 17. Thus, a POSITA considering this proposed combination in 2002 would not have considered the combination to have rendered Claim 17 obvious.

349. Therefore, it is my opinion that the prior art combination of Meta's Ground 1 does not render obvious Claim 17 or any of the claims that depend from it.

350. For the same reasons I described above regarding Claim 1, it is my opinion that Meta's proposed combination of Neibauer, Ausems, Cheng, and Squibbs does not teach all of the limitations of Claim 21. Thus, a POSITA considering this proposed combination in 2002 would not have considered the

combination to have rendered Claim 21 obvious.

351. Therefore, it is my opinion that the prior art combination of Meta's Ground 1 does not render obvious Claim 21.

352. For the same reasons I described above regarding Claim 1, it is my opinion that Meta's proposed combination of Neibauer, Ausems, Cheng, and Squibbs does not teach all of the limitations of Claim 22. Thus, a POSITA considering this proposed combination in 2002 would not have considered the combination to have rendered Claim 22 obvious.

353. Therefore, it is my opinion that the prior art combination of Meta's Ground 1 does not render obvious Claim 22.

2. Ground 2, the Ground 1 Prior Art in Light of Harvey does not Render Claims 1-19 or 21-22 of the '578 Patent Obvious

354. I understand from counsel that Meta's arguments incorporating the Harvey reference relate only to claim construction positions from the district court litigation, which neither party is asserting in these IPRs. Counsel has instructed me that, because neither party is asserting the district court litigation positions here, that I may consider Ground 2 to be moot. As such, I do not offer an opinion regarding Ground 2. Nonetheless, my review of Harvey leaves me of the opinion that it does not remedy the deficiencies of the prior art combinations on which I have opined above. Though I am offering no opinion on Ground 2, I reserve the right to supplement the Declaration and offer an opinion if the situation changes

such that Ground 2 or Harvey becomes relevant.

H. 250 IPR

1. Ground 1, Neibauer in View of Ausems and Cheng does not Render Claims 1-3, 6-9, 12-14, or 17-18 of the '348 Patent Obvious

355. Each of the claims challenged in this Ground contains a limitation that is a version of "receiving [first/second] device-captured data from a [first/second] mobile device over at least one network." I disagree with Meta's argument that the upstream transfer of photographs from the mobile device through the Cheng proxy server to the Neibauer web server meets his limitation. Pet. 23. Meta only seems to rely on Ausems for to show that a mobile device can obtain image data from a digital camera. *See* Pet. 10. Meta does not seem to rely on Ausems to argue that the combination meets the requirement of a mobile device transmitting image data through Cheng's proxy server to Neibauer's web server. Pet. 25. In my opinion, a POSITA at the time would not have been motivated to combine Neibauer and Cheng, but even if they did, the combination would not satisfy the limitation of "receiving . . . from a mobile device."

356. As I opined above, a POSITA at the time would not have understood "mobile device," in light of the specification, to include a full-capability computer (e.g., laptop) using conventional web pages. Thus, ability of full-capability laptops to access the Yahoo! Clubs functionality is irrelevant to whether mobile devices could provide content to be received and integrated into Yahoo! Clubs. Rather, the

issue would have been whether the cited art disclosed that less-capable laptops and/or other mobile devices could provide first and second device-captured content for integration into a mobile version of Yahoo! Clubs. In my opinion the asserted prior art, even considered in combination, would not have suggested this teaching to a POSITA in 2002.

357. Neibauer describes the limited subset of Yahoo! features available to mobile devices. None of those features provided for mobile device-supplied device-captured data to be integrated into a web-based information channel. As a "For Dummies" type of reference, Neibauer does not disclose any proposed future Yahoo! Clubs functionality for mobile devices, and no such extension would have been obvious to a POSITA at the time. In my opinion, any such suggestion can only come from hindsight based on a review of the Challenged Patents.

358. In my opinion, Cheng does not provide the required limitation. Cheng was explicitly designed for one-way data transfer in response to a request from a mobile client. As I discussed above, the only mobile device-supplied data in Cheng is a website request (106) provided to a proxy server (110). Neither Neibauer nor Cheng teaches any mobile device-supplied device captured data to be integrated into a web-based shared information channel. The limitation in question would have required a POSITA to create a completely new up-conversion functionality that is not disclosed by any of the references. Based on my experience at the time,

development of such functionality would have required significant work and would not have been obvious to a POSITA. Cheng's down-converting of a full webpage would not have made obvious to a POSITA the need to subsequently up-convert data from a mobile device and provide it back to the web server. Even if a POSITA would have imagined the need for such a feature, neither Cheng nor any of the other references provided guidance regarding ***how*** to perform such a feature.

359. Unlike downloading data to a client, which a server does in response to a specific request, uploading data to a server often implies a persistent connection between the two, which among other things requires the server to keep track of the client's state. The intermediary proxy server, which presents itself to the content server as the client, would have to account for technical issues such as persistent connections with and state tracking of the actual client. Cheng includes no such teachings. On the contrary, Cheng's disclosure of a cache (which saves previously requested web pages locally so that the proxy server can return the local copy rather than querying the origin web server each time) would interfere with—and teach away from—the sort of two-way communication scheme. In other words, more would be required than simply viewing Cheng as a "bolt-on" functionality.

360. Extensive modifications to Cheng, which are not taught by any of the asserted prior art references, would be required to affording any ability to upload

content. Such modifications would require extensive experimentation and would not provide a reasonable likelihood of success.

361. I have seen no evidence regarding how the upload functionality of Neibauer functioned or what modifications would be required for Cheng to support it.

362. I disagree with Meta's argument that a POSITA would have been motivated to make this combination to allow a user to make use of the functionality in Clubs on a mobile device. Based on my experience, mobile devices available at the time were incapable of receiving and displaying complex websites such as those disclosed in Neibauer. Such devises certainly were not capable of supporting the internal functionality needed for the interactive features of Clubs. In fact, the entire purpose of Cheng's down-converting websites was to afford the ability to display the website via the limited capabilities and/or support afforded to the mobile devices. Other than providing a mechanism to enable link clicks, there is no suggestion that interactive features, such as photo uploads to a Club site, could be supported by the resulting down-converted sites. In my opinion, it would not have been obvious to a POSITA at the time that the asserted combination could have worked to achieve the desired result. Therefore, a POSITA would not have been motivated to attempt such a combination. In my opinion, the only motivation for the asserted combination is impermissible hindsight.

363. It is therefore my opinion that a POSITA would have had neither a motivation to attempt the asserted combination not a reasonable expectation of success.

364. The primitive Yahoo! services available on a PDA via Yahoo! Mobile and Yahoo! To Go reflected the "limited memory, slow data transmission, and small screens" the experts agree were available on mobile devices at the time. EX1002 ¶63 (citing EX1012 p.320); see also EX1003, 171:

365. As I opined above, due to limitations in memory, bandwidth, and screen space at the time, these examples are designed to fit the PDA screen and are text only. The minimalist nature of these renditions becomes especially clear when compared to to desktop browser views of the Clubs functionality:

Alan and Barbara's Clubhouse
For Alan, Barbara, and Friends

Category: Families
Type: Unlisted

Hello, longportalan. You are a **founder**.

Founder's Message

A place for Alan, Barbara, and friends to meet and share.

Founder's Personal Home Page

Last edited by: longportalan

Overview

Online Now (0 members) — view all online

Recent Messages — post | view all

Mar 29 — **Alan and Barbara's Clubhouse** -**longportalan**
Welcome to the Yahoo! Message Board for Alan and Barbara's Clubhouse

Stats

Members: [2] **Founded:** [March 29, 2000]

FIGURE 21-13 A Personal club

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

Category: James Bond Serie
Club Type: Liste

Blueraja's BOND GIRL Album

Back To: Album List

Created by blueraja3 on 22-Nov-1999

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

EX1003, p. 483 (Figure 21-13, club home page), p. 478 (Figure 21-10, club photo album).

366. As I opined above, a POSITA would have expected that support for Yahoo! Clubs provided on a mobile device would have the highly simplified interface consistent with what is shown for basic web features like stock quotes—assuming a POSITA would have been motivated to make such a combination at all, which I am of the opinion they would not have been. *Id.* Thus, a POSITA would not have expected such an interface to include support for multimedia content, such as the content on which Meta relies. The Neibauer's Yahoo! Mobile and Yahoo! To Go examples do not disclose a sufficient functionality to support this combination.

367. Neibauer explicitly indicates to "use standard Windows techniques to locate and select the file," illustrating a Windows Operating System "Choose File" dialog box (reproduced below) used to select files to upload. EX1003:00103. Such standard Windows techniques were often not supported by mobile devices.

368. As explained in more detail above, it is my opinion that Yahoo! did not already provide Clubs functionality through Yahoo! Mobile and Yahoo! To Go was because contemporaneous mobile devices were incapable of supporting it.

369. As I opined above, Meta's proposed combination would have made no sense to a POSITA because already argued it would have been obvious to adapt Neibauer to provide Clubs through Yahoo! Mobile and/or Yahoo! To Go based on Neibauer alone, and it does not articulate any purported differences in capability between Yahoo! Mobile or Yahoo! To Go and Cheng's translation proxy server that would have caused a POSITA to find Yahoo! Mobile or Yahoo! To Go deficient in a way that Cheng would solve.

370. As I discussed above when describing Cheng, Cheng's conversion process applied ***both*** to the ***format*** of a web page, ***and*** to its ***content*** and ***capabilities***.

371. If such transcoding proxy servers were already in commercial use, there would have been no need and thus no motivation for a POSITA to start over with Cheng rather than just using an already-available proxy—if indeed a POSITA would have seen a transcoding proxy server as a viable solution at all. Furthermore, if transcoding proxy servers at the time actually were capable of converting the Clubs websites into a form usable by contemporaneous mobile devices, certainly some fraction of Yahoo!'s millions of users actually would have

done so and Petitioner could have dramatically simplified its petitions by simply bringing forth such evidence.

372. Furthermore, Petitioner's theory is expressly based on applying Cheng in its entirety as "bolt-on" functionality to a likewise unmodified Neibauer, and even argues a single entity could operate both the Neibauer web server and Cheng proxy. Pet. 20. Again, this theory appears to be results-oriented and conclusory, ignoring the real-world ramifications of such a choice and why they would actually steer a POSITA away from it.

373. A proxy server such as Cheng's is designed to be transparent to the web server: to the web server, the proxy server appears to be the client. But the converse is not true: the proxy server is not at all transparent to the ***client***. Indeed, Cheng acknowledges only two ways for a mobile device to route requests through its proxy server: either through a permanent connection between the client and proxy server via a device configuration (which would route any and all traffic through that proxy), or a "decorated URL" (e.g., www.proxyserver.com/?url=http://www.originalwebserver.com). Either possibility would be awkward for a mobile device user wanting to view a website of an enterprise that employed Petitioner's Neibauer-Cheng combination: either the user would have to manually reconfigure the proxy server in their mobile device to point to the Neibauer-Cheng proxy server every time they wanted to view the

enterprise's web pages (and then remove or change their proxy connection for other web pages), or the user would have to enter a "decorated URL" in the ponderous form shown above every time they wanted to view the enterprise's web pages.

374. In my opinion, these unnecessary contortions would be unacceptable to a user, and would discourage a POSITA from designing a mobile-capable website by crudely "bolting on" a Neibauer web server and Cheng proxy server as Petitioner suggests.

375. Petitioner's "bolt-on" approach to Cheng's proxy server glosses over the level of experimentation that would be required to program that proxy server to translate a specific website such as Yahoo! Clubs to work on a specific mobile device available at the time. Petitioner treats Cheng like a mythical "babel fish" that automatically and magically converts any website for use on any device, when in reality Cheng merely discloses a ***framework*** for ***attempting*** to do so: an exemplary set of "SW-Transforms" that attempt to alter the content of an original website to make the remainder viewable on a given mobile device. Cheng discloses SW-Transforms that 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.*, EX1004, 11:45-62; 12:25-31. Cheng states: "The

number of possible conversions is virtually infinite." *Id.*

376. Cheng thus discloses a methodology for conversion and a decidedly finite number of exemplary SW-Transforms (EX1004, cols. 17-22), but beyond that leaves a POSITA on their own to determine what might be required to make a specific website work on a specific device. Thus, a POSITA examining Cheng would have no idea whether its disclosed system would work at all to translate the Clubs web pages to form viewable on a mobile device available at the time—much less with all of the functionality usable that Petitioner relies on—and would have to engage in undue experimentation to determine which of Cheng's SW-Transforms might work, or whether the POSITA would have to develop new ones from Cheng's "virtually infinite" set of possibilities. A POSITA in 2002 would viewed this as mere exploration and would not have expected to be successful.

377. And in any event, regardless of the level of experimentation required to make Cheng's translation work on Neibauer's web pages, a POSITA still would not have a reasonable expectation of success because, as discussed above, Cheng's proxy server is only designed for downstream content delivery and Yahoo! Clubs requires two-way interaction and transfer of content, and modifying Cheng to do so would be outside the capabilities of a POSITA.

378. Independent claim 1 is directed to integrating first device-captured data received from a first mobile device and second device-captured data received

from a second mobile device into a web-based shared information channel controllably accessible to the users of these mobile devices via respective personalized content applications of the first and second mobile devices.

379. Limitation 1[c][1] recites that an apparatus' processing element is configured "to receive first device-captured data from a first one of the mobile devices via the network interface." Limitation 1[c][2] recites that the apparatus' processing element is configured "to receive second device-captured data from a second one of the mobile devices via the network interface." The cited references, alone or in hypothetical combination do not teach or even suggest such features.

380. As established above, Neibauer's PC-based Yahoo! Clubs service does not render the current claim limitation obvious. The current claim limitation requires that the device-captured data is received "from a first one of the mobile devices" and "from a second one of the mobile devices," respectively, which, as established, does not include a full-capability computer, such as a full-capability laptop. Accordingly, photo uploads from Neibauer's Yahoo! Clubs functionality by a PC does not disclose or render obvious the current limitations. Further, the mere mention of the set of Yahoo! Mobile services implementable by a mobile device does not teach or suggest these features. Indeed, as established above, none of the Yahoo! Mobile features provides device-captured data to be integrated into a web-based shared information channel amongst mobile devices. Instead, all of the

mobile functionality provided is merely functionality that results in data being *received* by the mobile device for presentation on the mobile device. As established, mobile devices use mobile sites for web-based communication. There is no teaching, suggestion, or enablement of device-captured data that is provided by (and thus received from) a mobile device, let alone photos uploaded from such a mobile device and posted in the Yahoo! Clubs website.

381. Further, Cheng combined with Neibauer's Yahoo Clubs! functionality does not teach or suggest these limitations. As established, Cheng does not contemplate uploads from mobile devices, even when "bolted-on" to the Yahoo! Clubs functionality described in Neibauer. As established, Cheng does not provide any teaching or suggestion of mobile-device provided data other than a web page request 106 provided to the proxy server 110. Cheng does not teach or suggest mobile-device supplied data that is integrated back into the web page 104. In fact, Cheng does not disclose *any* mobile device-supplied data being provided to the web page 104. Therefore, even if Neibauer's Yahoo! Clubs site were the web page 104, there would still be no device-captured data received from the mobile device 108 at the Yahoo! Clubs web page 104. Instead, at best, Cheng would allow a view of the Yahoo! Clubs web page 104 to be *received and presented by* the mobile device 108, which is simply not analogous to the recited claim limitations. Further, neither Neibauer nor Cheng contemplates nor provides guidance regarding

additional modifications that could be used to provide such forward provision of device-captured data from mobile devices. Thus, any such combination attempting to establish these features is impermissible hindsight. Further, the lack of guidance regarding the complex modifications that would have been required, clearly demonstrates that undue experimentation would be required and a lack of reasonable likelihood of success.

382. Limitation 1[c][3] recites that the apparatus' processing element is configured "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." The cited references, alone or in hypothetical combination do not teach or even suggest such features.

383. Indeed, because the cited references do not teach or suggest receiving first device-captured data from a first mobile device and receiving second device-captured data from a second mobile device, the cited references clearly do not disclose integrating such data into a web-based shared information channel. Indeed, as explained above, at best, Neibauer merely enables PCs to upload photos via the Yahoo! Clubs site. There is no teaching or suggestion of mobile devices performing such functionality.

384. Further, as established, Cheng does not contemplate uploads from

mobile devices, even when "bolted-on" to the Yahoo! Clubs functionality described in Neibauer. Indeed, the complex modifications that would have been required, clearly demonstrates that undue experimentation would be required and a lack of reasonable likelihood of success. Because the Ground 1 combination does not teach or even suggest receiving first device-captured data and second device-captured data from respective mobile devices, this combination clearly does not teach or suggest integration of such device-captured data into a web-based shared information channel controllably accessibly by the respective mobile devices.

385. As illustrated, the Ground 1 combination is erroneous, suffering from a lack of motivation to combine and hindsight bias, requiring significant modifications to teach the recited limitations. These modifications are neither taught nor suggested by the cited art, alone or in hypothetical combination. Further, these modifications would require significant undue experimentation with a lack of reasonable likelihood of success. For the foregoing reasons, Petitioner fails to carry its burden of establishing claim 1 obvious over the cited art.

386. Independent Claim 12 recites "[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." Thus, claim 12 requires a server that comprises the apparatus of claim 1 and all of the recited limitations provided therein. As mentioned above, limitations 1[c][1-3]

are not taught or even suggested by the prior art references cited in Ground 1. Thus, because claim 12 includes all recitations of claim 1 and the cited prior art does not render claim 1 obvious, the cited art clearly does not render claim 12 obvious.

387. Independent claim 13 recites a method that comprises limitations that are substantially similar to limitations 1[c][1-3] discussed above. For example, limitations 13[a] and 13[b] recite: "receiving first device-captured data from a first mobile device over at least one network" and "receiving second device-captured data from a second mobile device over said at least one network," respectively. Limitation 13[c] recites: "integrating 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."

388. As mentioned above, limitations 1[c][1-3] are not taught or even suggested by the prior art references cited in Ground 1. Thus, because claim 13 includes these recitations of claim 1 and the cited prior art does not render claim 1 obvious, the cited art clearly does not render claim 13 obvious.

389. Independent claim 17 recites a computer-readable storage medium with code that causes a processing element to perform limitations that are substantially similar to limitations 1[c][1-3] discussed above. For example,

limitations 17[a] and 17[b] recite: "to receive first device-captured data from a first mobile device over at least one network" and "to receive second device-captured data from a second mobile device over said at least one network," respectively. Limitation 17[c] recites: "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."

390. As mentioned above, limitations 1[c][1-3] are not taught or even suggested by the prior art references cited in Ground 1. Thus, because claim 17 includes these recitations of claim 1 and the cited prior art does not render claim 1 obvious, the cited art clearly does not render claim 17 obvious.

391. Claims 2 and 3 recite specific types of device-captured data that are provided by the first mobile device and/or the second mobile device. Claim 2 requires that the device-captured data received from the first mobile device and/or the second mobile device comprises image data. Claim 3 requires that the device-captured data received from the first mobile device and/or the second mobile device comprises video data.

392. As mentioned above, the cited references do not teach or even suggest receiving device-captured data from mobile devices. Instead, Neibauer, at best, teaches *receiving* Yahoo! Mobile content at a mobile device without ever teaching

or suggesting mobile provision of content. Further, Cheng does not obviate this deficiency of Neibauer, as Cheng merely provides down-conversion of a website requested by a mobile device without providing any teaching or suggestion that subsequent content could be received from the mobile device and presented back to the webserver/website. Thus, even if Cheng was "bolted on" to Neibauer's Yahoo! Clubs functionality, as suggested by Petitioner, this combination would merely result in the ability of mobile devices to *view* the Yahoo! Groups website. It does not provide any teaching or suggestion, let alone enablement of a mobile device somehow providing content back to the webserver/website to be integrated into the Yahoo! Clubs website. As established, such a feat would not have been obvious to a POSITA, as it would likely not be as simple as merely reversing Cheng's down-conversion, instead potentially requiring significant additional changes to provide mobile device to proxy server to web server functionality. Further, the addition of Ausems does not obviate these deficiencies and Petitioner has not established that it does. Instead, at best, Petitioner cites Ausems "[i]n the event Patent Owner argues that incorporation of digital cameras into mobile devices was not known as of June 2002." Pet. 24. Ausems does not teach or suggest, and Petitioner has not alleged or established that Ausems teaches or suggests, mobile device provided device captured data that is integrated into a web-based shared information channel, let alone two mobile devices providing

such device captured data for integration into the web-based shared information channel.

393. Because the cited art does not disclose provision of (and thus receiving) "first device-captured data from a first one of the mobile devices via the network interface" or "second device-captured data from a second one of the mobile devices via the network interface," the cited references clearly do not teach or suggest that such device-captured data comprises "image data" (claim 2) or "video data" (claim 3).

394. In rejecting claim 2, Petitioner merely relies on the rational used in claim 1. Pet. 34. As mentioned above, the cited references do not teach or even suggest photo sharing from a mobile device. Instead, at best, the cited references may teach *viewing* shared photos on a mobile device (using Cheng's down-conversion applied to Yahoo! Clubs) without ever teaching or suggesting mobile device provision of image data. Thus, for similar reasons as discussed above with respect to claim 1, Petitioner has not established that claim 2 is obvious over the cited references, either alone or in hypothetical combination.

395. Regarding claim 3, Petitioner provides two theories, both of which are flawed. Under a first theory, Petitioner suggests that GIF image file "was the *de facto* image standard for images on the Web" and "could contain a number of image frames… to create videos." Petitioner further notes that "Cheng expressly

discloses the ability to provide, to mobile devices, GIF images on web pages." Pet. 35. However, this express disclosure of Cheng does nothing to establish a teaching or suggestion of *receiving* the video data *from* the mobile device, as required by the current claims. As discussed above, there is simply no disclosure of device captured data being provided by and, thus, received from, a mobile device. Thus, there is simply no teaching or suggestion of such device captured data comprising video data.

396. Under Petitioner's second theory, Ausems is relied upon for this feature, based upon disclosure of a PDA that provides video conferencing/video capture capabilities. Pet. 36. While Ausems does disclose such functionality, such video capture is not analogous to the device captured data that is integrated "into a web-based shared information channel." Indeed, as with the other art cited, Ausems, alone or in combination with the other art, does not teach or suggest mobile device provided content that is integrated into a web-based shared information channel accessible to two mobile devices. Instead, at best, Ausems indicates that "text and images" are transmitted via the wireless phone engine 210 without any teaching or suggestion that such transfer may be integrated into "web-based" channel. EX1006,p.14 at 5:55-58. To the extent that Ausems provides disclosure regarding Internet, Ausems merely indicates that a separate modem 220 is provided to "have Internet access." *Id.* at p.14 at 5:66-6:1. Thus, even with the

addition of Ausems, the cited combination does not teach or suggest that the device-captured data, which is integrated into a web-based shared information channel, comprises video data.

397. Claim 6 recites that "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." The cited references do not render this claim obvious. As mentioned above, mobile devices should not be construed to include conventional laptops that act similar to desktops, but instead the subset of laptops that utilize mobile sites, as is clear throughout the current specification and would have been understood by a POSITA. Claim 6 expressly limits away from at least one of the mobile devices being any type of laptop, by reciting a list of mobile devices comprising: "one of a mobile telephone, a tablet computer, a GPS-based navigational device, a watch and a portable game player." Each of the recited mobile device types did not use a typical webpage to access the web. Instead, web-enabled versions of these types of devices typically used a mobile site (e.g., specifically tailored to support the browsing limitations (limited feature support) of that device. Thus, the mere disclosure of the Yahoo! Clubs website for desktop computers clearly does not teach or suggest such a website where one of the recited mobile device types provides device-captured data. Indeed, as mentioned above, none of the cited references provide such teaching or

suggestion, either alone or in hypothetical combination.

398. Petitioner asserts that Cheng an Ausems both include "at least 'a mobile telephone'" and that Ausems discloses "a GPS-based navigational device." However, as explained above, neither of these references, alone or when combined with Neibauer or each other, teach or even suggest a mobile telephone that provides "device-captured data" that is integrated "into a web-based shared information channel." Thus, the cited references do not render claim 6 obvious.

399. Dependent claim 7 recites "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." Thus, a web server provides the receiving and integration features described in Limitations 1[c][1-3]. The cited references do not teach or suggest this feature.

400. Petitioner asserts that the origin server 102 "which provides the functions of Neibauer" combined with the proxy server 110 "which makes those functions available to mobile devices" teaches the web server recited by the current claims. Pet. 37. However, as mentioned above, the proxy server 110 does not provide any teaching or suggestion of receiving anything at the proxy server 110 from the mobile device, except for a web page request and/or subsequent web page requests. There is absolutely no teaching or suggestion in Cheng, alone or combined with Neibauer, that the proxy server 110 could, should, or would

"receive first device-captured data from a first one of the mobile devices via the network interface" or "receive second device-captured data from a second one of the mobile devices via the network interface" let alone how such content, received from a down-converted mobile website would be up-converted and provided back to the origin server 102. Thus, in contrast to Petitioner's assertion, the origin server 102 and proxy server 110, even when combined, do not "make[] those functions available to mobile devices." Thus, the cited references clearly do not render claim 7 obvious.

401. Dependent claim 8 recites "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." (Emphasis added.) Claims 14 and 18 recites similar recitations, as indicated by Petitioner. Pet. 42-43; 44. Claim 9 further limits claim 8, indicating that "the message is delivered to one or more of the mobile devices over a wireless network." The cited art does not teach or even suggest

these features.

402. The cited references do not teach or suggest a web-based shared information channel configured to allow users to enter a message "via the personalized content application of its corresponding mobile device." Petitioner once again relies on the Yahoo! Clubs features of Neibauer, which are exclusive to non-mobile devices. As mentioned above, there is simply no teaching or suggestion in the cited art, alone or in hypothetical combination, of providing device captured data from a mobile device, which is integrated into a web-based shared information channel accessible by the mobile devices. Thus, the cited references clearly do not render claim 8 or claim 9, depending therefrom, obvious. Further, for similar reasons, the cited references do not render claims 14 and 18 obvious.

2. Ground 2, Neibauer in View of Ausems, Cheng, and Squibbs does not Render Claims 4-5 of the '348 Patent Obvious

403. Claim 4 recites that "at least one of the first device-captured data and the second device-captured data [integrated into the web-based shared information channel controllably accessible… via respective personalized content applications of the first and second mobile devices] comprises device-captured location coordinates." Claim 5 recites that "at least one of the first device-captured data and the second device-captured data comprises: location-identifying information of the corresponding mobile device; and at least one of device-captured image data

and device-captured video data associated with a capture location identified by the location-identifying information." The Ground 2 combination of cited art does not establish a *prima facie* case of obviousness with respect to the claimed subject matter of claims 4 and 5.

404. As I opined above, the Squibbs modification does not provide a reasonable expectation of success and, thus, does not support a *prima facie* case of obviousness over claims 4 and 5.

405. Dependent claim 4 recites that "at least one of the first device-captured data and the second device-captured data [integrated into the web-based shared information channel controllably accessible… via respective personalized content applications of the first and second mobile devices] comprises device-captured location coordinates." Claim 5 recites that "at least one of the first device-captured data and the second device-captured data comprises: location-identifying information of the corresponding mobile device; and at least one of device-captured image data and device-captured video data associated with a capture location identified by the location-identifying information." The cited references, alone or in hypothetical combination, do not disclose these features.

406. As discussed above with respect to Ground 1, none of the Ground 1 art, alone or in hypothetical combination, teaches or suggests receiving provision of first and second device-captured data from respective mobile devices and

integrating the first and second device-device captured data into a web-based shared information channel. The addition of Squibbs does not obviate this deficiency. Instead, at best, Squibbs provides location information to a PC 5 of a user that takes a picture, with the aim of providing a geographically organized view of the user's photos. Squibbs:0031-0032. Once again, there is no teaching or suggestion that first and second device-captured data is received from respective mobile devices and integrated into a web-based shared information channel controllably accessible by respective personalized content applications of the first and second mobile devices. Even if Squibbs was properly combinable with Neibauer, it would merely result in the ability to download photos from the Yahoo! Clubs page to a user's PC and also receive location information at the user's PC for location timestamping. There is no teaching or suggestion that Squibbs' album program 50 could or would be applied to a web-based service. Indeed, a POSITA in 2002, given the then state of the technology, would have no reasonable expectation of success of first adding more complex functionality to the Yahoo! Clubs service, down-converting the service for mobile access, and then somehow adding new mobile upload capabilities back to the Yahoo! Clubs service.

407. For at least these reasons, Ground 2 does not support a *prima facie* case of obviousness of claims 4 and 5.

3. Ground 3, Neibauer in View of Ausems, Cheng, and McElfresh does not Render Claims 10-11, 15-16, or 19-20 of the '348 Patent Obvious

408. The Petitioner's McElfresh Modification with the hypothetical combination of art provide in Ground 1 does not provide a reasonable expectation of success because the ad selection in McElfresh is based up tracked user information that was typically available via mobile devices in 2002 and is not taught, suggested, or enabled by any of the art, alone or in hypothetical combination. Indeed, as explained above, the down-conversion used by Cheng to enable viewing of a web page on a mobile device is not backwards compatible and does not teach or suggest an affordance for provision of data from the down-converted mobile site back to the web server. Thus, McElfresh's ad selection and provision would not work, as user demographic data would not be available.

409. In the Petition, Petitioner cites McElfresh's ad-request and response technique as teaching or suggesting "wherein the web-based shared information channel is configured to identify at least one data feed and wherein data is periodically obtained from a given such identified data feed and 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." However, as discussed above, such an ad-request and response technique is not analogous to integrating periodically obtained data of a data feed into a persistent version of a given set of shared information content of the web-based shared information channel. To the contrary, in contrast to integrating data that is periodically obtained from a data feed, the ad-request and response scheme is no data feed at all, but instead merely a near-real-time response.

410. Petitioner suggests 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." Pet. 56. Thus, it appears that Petitioner is suggesting a library of available advertisements is a "data feed," which is clearly erroneous, as a library of "available" advertisements need not ever be provided to a user and is, thus, clearly not a "feed." Petitioner continues, suggesting that the Neibauer webserver "would have *periodically obtained* ad data from this feed [the "available" advertisements], for example when webpages for the club sharing photo sharing feature are being prepared for delivery to a user." Thus Petitioner's position is that ad responses to ad requests provided during rendering of a website are analogous to data from data feeds that is periodically updated. Such a position is erroneous, as data is neither fed nor periodically updated under the McElfresh technique. Accordingly, McElfresh does not disclose the features of claims 10, 15,

or 19, let alone the features of claims 11, 16, and 20 depending from claims 10, 15, and 19, respectively.

4. Grounds 4-6

411. I understand from counsel that Meta's arguments incorporating the Harvey reference relate only to claim construction positions from the district court litigation, which neither party is asserting in these IPRs. Counsel has instructed me that, because neither party is asserting the district court litigation positions here, that I may consider Grounds 4 through 6 to be moot. As such, I do not offer an opinion regarding Grounds 4 through 6. Nonetheless, my review of Harvey leaves me of the opinion that it does not remedy the deficiencies of the prior art combinations on which I have opined above. Though I am offering no opinion on Grounds 4 through 6, I reserve the right to supplement the Declaration offer an opinion the situation changes such that Grounds 4 through 6 or Harvey becomes relevant

XII. CONCLUSION

412. I declare that all statements made herein of my knowledge are true, that all statements made on information and belief are believed to be true, and that these statements were made with knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001

of Title 18 of the United States Code. I reserve the right to modify my opinions as additional information becomes available to me.

Dated: October 1, 2024

Nenad Medvidović