

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

GOOGLE LLC,
Petitioner

v.

WILDSEED MOBILE, LLC,
Patent Owner

Case IPR2023-00247
U.S. Patent No. 10,869,169

DECLARATION OF DR. SAM MALEK

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I, Dr. Sam Malek, declare under penalty of perjury as follows:

I. INTRODUCTION AND BACKGROUND

1. I have been retained as an expert witness by Wildseed Mobile, LLC (“Wildseed”) and have been asked to provide my expert opinions regarding U.S. Patent No. 10,869,169 (Exhibit 1001, the “’169 patent” or the “Patent in Review”) currently under review by the Patent Trial and Appeal Board (PTAB). Specifically, I have been asked to consider the patentability of the Patent in Review as of its priority date.

2. I have been asked to provide an opinion as to whether claims 1-22 of the ’169 patent are rendered obvious by various combinations of U.S. Patent No. 8,645,211 to Rothschild (“Rothschild” or “the ’211 patent”), U.S. Patent No. 6,839,411 to Saltanov et al. (“Saltanov” or “the ’411 patent”), U.S. Patent No. 6,836,792 to Chen (“Chen” or “the ’792 patent”), and U.S. Patent Publication No. 2002/0002502 to Maes et al. (“Maes” or “the ’502 publication”).

3. I understand that the PTAB has instituted an *Inter Partes Review* (“IPR”) regarding the patentability of the Patent in Review, with Google LLC as Petitioner and Wildseed Mobile LLC as Patent Owner.

4. I understand that a related pending litigation, “*Wildseed Mobile LLC v. Google LLC*,” Case No. 3:22-cv-04928, in the United States District Court

Northern District of California, San Francisco Division, has been stayed pending this IPR.

5. In this Declaration I provide my independent analysis of the '169 patent in light of the materials cited below and my knowledge and experience in this field during the relevant time frame. I have been asked to consider what one of ordinary skill in the art ("POSITA") at the time of the invention of the '169 patent would have understood from the specification, including scientific and technical knowledge related to the patent. *See* Section IV. I have also been asked to consider whether certain references disclose or render obvious the inventions in claims 1-22 of the '169 patent.

6. My findings, as explained below, are based on my study, experience, and background in the fields discussed below, informed by my education in computer science and web-based design, and my extensive experience in the fields of browser-based user interfaces and network services. I have also relied on my review and analysis of the prior art, information provided to me, and information that I have independently reviewed.

7. I am being compensated for my independent analysis as an expert with respect to this *inter partes* review proceeding at my standard hourly rate of \$700, but my compensation is not contingent in any way on the content of my analysis or the outcome of this proceeding. I have no financial interest in Petitioner

(Google LLC) or Patent Owner (Wildseed) and I have no financial interest in the challenged patent.

II. QUALIFICATIONS

8. Details of my professional qualifications and background are set out in my Curriculum Vitae (Exhibit 2010).

9. I have over two decades of experience in the general area of computer and software technology in a variety of roles, including as a software engineer, software architect, and programmer at a variety of companies, as well as a researcher and professor at several universities.

10. I am currently a Full Professor of Software Engineering with tenure in the School of Information and Computer Sciences at the University of California, Irvine (“UCI”). At UCI, I am also the Director of the Software Engineering and Analysis Laboratory (“SEAL”). I have served as the principal investigator of several federally funded research projects totaling more than ten million dollars. Before UCI, I was an Associate Professor at George Mason University (“GMU”). I formerly worked as a researcher at the University of Southern California (“USC”).

11. I have extensive formal training in the general fields of computing and technology. In 2000, I earned a B.S. degree in Information and Computer Science from UCI. In 2004, I received a M.S. degree in Computer Science from USC. In

2007, I received a Ph.D. in Computer Science, also from USC. My Ph.D. dissertation was in the general area of distributed software systems, and specifically resulted in new algorithms and an architectural middleware for effective deployment of a component-based software system among a distributed set of computing nodes. I have received numerous awards for my scientific contributions to the field of Computer Science, including the Test of Time Award in 2020 from the Association for Computing Machinery, the CAREER award from the National Science Foundation in 2013, the Emerging Researcher/Scholar/Creator award from GMU in 2013, and the Computer Science Department Outstanding Faculty Research award from GMU in 2011. Software systems and results produced in my research lab have been adopted for use by various organizations in both private (*e.g.*, Boeing, Bosch) and public (*e.g.*, NASA, DHS, FBI) organizations. I am a member of the Association for Computing Machinery (“ACM”), ACM Special Interest Group on Software Engineering (“SIGSOFT”), and the Institute of Electrical and Electronics Engineers (“IEEE”).

12. My research is in the field of software engineering, and to date my focus has spanned the areas of software design and architecture, distributed and embedded systems, smartphone and mobile computing, internet and web technologies, middleware, service-oriented computing, autonomic computing, software testing and analysis, and software dependability and security. My

research has produced more than 120 manuscripts that have been published in peer-reviewed scientific conferences and journals. These publications have been highly cited (more than 10,000 times according to scholar.google.com).

13. I also have several years of experience as a software engineer, software architect, and programmer at a variety of companies, including the Boeing Company, PriceWaterhouseCoopers Consulting (later acquired by International Business Machines (“IBM”) Corporation), FieldCentrix, and Neural Computing Systems Lab. During my tenure in the industry, I gained professional experience in the design, development, and management of large-scale software engineering efforts.

14. I have extensive prior knowledge and experience in the subject matter of the technology at issue in this case. Among others, at PriceWaterhouseCoopers Consulting, I worked as a software engineer on several software development projects involving the development of web-based applications using HTML, JavaScript, Java Applet, Java Servlet, and several other related technologies. I also developed enterprise Java-based applications on top of web application servers and containers. At Boeing Corporation, I worked on the development of autonomous aerial vehicles (nowadays commonly referred to as drones) as part of a military modernization program. These drones were designed to produce high-resolution multimedia feed. In addition to my professional experience in the industry, I have

conducted research and published heavily in the subject matter of the patented technology. For example, I was one of the principal investigators in a research project sponsored by the National Science Foundation, entitled “SASSY:Self-Architecting Software Systems,” which aimed to develop a solution for dynamically composing a software system through automated discovery and coordination of web services. This work involved development of new modeling languages and runtime environments for enabling web services to interoperate, communicate, and coordinate their activities.

15. I also regularly teach courses related to the subject matter of the patented technology at my university. At the graduate level, I regularly teach a course on Distributed Software Architectures, and at the undergraduate-level, I regularly teach a course on Internet Applications Engineering. In these courses, I cover topics related to the patented technology including HTML, CSS, JavaScript, Java, React, NodeJS, database programming, web services, web servers, application servers, and web containers.

16. Because of my background, training, and experience, I am qualified as an expert in the technical areas relevant to the '169 patent.

III. LEGAL PRINCIPLES

17. I am not an attorney and have not been asked to offer my opinion on the law. However, I understand that I am obliged to follow existing law. I have therefore been asked to apply the following legal principles in my analysis.

18. I understand that in an *Inter Partes* Review proceeding the party challenging the patent's validity must prove by a preponderance of the evidence that the patent claims are invalid.

19. I understand that validity based on novelty, *i.e.*, anticipation and obviousness is governed by 35 U.S.C. §§ 102–103 (Pre-AIA) which read as follows:

A person shall be entitled to a patent unless —

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for patent, or

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of the application for patent in the United States, or

(c) he has abandoned the invention, or

(d) the invention was first patented or caused to be patented, or was the subject of an inventor's certificate, by the applicant or his legal representatives or assigns in a foreign country prior to the date of the application for patent in this country on an application for patent or inventor's certificate filed more than twelve months before the filing of

the application in the United States, or

(e) the invention was described in — (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for the purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language; or

(f) he did not himself invent the subject matter sought to be patented, or

(g) (1) during the course of an interference conducted under section 135 or section 291, another inventor involved therein establishes, to the extent permitted in section 104, that before such person's invention thereof the invention was made by such other inventor and not abandoned, suppressed, or concealed, or (2) before such person's invention thereof, the invention was made in this country by another inventor who had not abandoned, suppressed, or concealed it. In determining priority of invention under this subsection, there shall be considered not only the respective dates of conception and reduction to practice of the invention, but also the reasonable diligence of one who was first to conceive and last to reduce to practice, from a time prior to conception by the other.

35 U.S.C. § 102 (pre-AIA) (conditions for patentability; novelty and loss of right

to patent).

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

(b)

(1) Notwithstanding subsection (a), and upon timely election by the applicant for patent to proceed under this subsection, a biotechnological process using or resulting in a composition of matter that is novel under section 102 and nonobvious under subsection (a) of this section shall be considered nonobvious if-

(A) claims to the process and the composition of matter are contained in either the same application for patent or in separate applications having the same effective filing date; and

(B) the composition of matter, and the process at the time it was invented, were owned by the same person or subject to an obligation of assignment to the same person.

(2) A patent issued on a process under paragraph (1)-

(A) shall also contain the claims to the composition of matter used in or made by that process, or

(B) shall, if such composition of matter is claimed in another patent, be set to expire on the same date as such

other patent, notwithstanding section 154.

(3) For purposes of paragraph (1), the term "biotechnological process" means-

(A) a process of genetically altering or otherwise inducing a single- or multi-celled organism to- (i) express an exogenous nucleotide sequence, (ii) inhibit, eliminate, augment, or alter expression of an endogenous nucleotide sequence, or (iii) express a specific physiological characteristic not naturally associated with said organism; (B) cell fusion procedures yielding a cell line that expresses a specific protein, such as a monoclonal antibody; and (C) a method of using a product produced by a process defined by subparagraph (A) or (B), or a combination of subparagraphs (A) and (B).

(c)

(1) Subject matter developed by another person, which qualifies as prior art only under one or more of subsections (e), (f), and (g) of section 102, shall not preclude patentability under this section where the subject matter and the claimed invention were, at the time the claimed invention was made, owned by the same person or subject to an obligation of assignment to the same person.

(2) For purposes of this subsection, subject matter developed by another person and a claimed invention shall be deemed to have been owned by the same person or subject to an obligation of assignment to the same person if —

(A) the claimed invention was made by or on behalf of parties to a joint research agreement that was in effect on

or before the date the claimed invention was made;

(B) the claimed invention was made as a result of activities undertaken within the scope of the joint research agreement; and

(C) the application for patent for the claimed invention discloses or is amended to disclose the names of the parties to the joint research agreement.

(3) For purposes of paragraph (2), the term "joint research agreement" means a written contract, grant, or cooperative agreement entered into by two or more persons or entities for the performance of experimental, developmental, or research work in the field of the claimed invention.

35 U.S.C. § 103 (conditions for patentability; non-obvious subject matter).

20. I understand that to be patentable, an invention must not have been obvious to a person of ordinary skill in the pertinent art at the time the invention was made. A claim is invalid for obviousness if the differences between the subject matter sought to be patented and the prior art are such that that the claimed subject matter as a whole would have been obvious, at the time the invention was made, to a person having ordinary skill in the art to which that subject matter pertains.

21. In determining whether a claimed invention is invalid for obviousness, one should consider the scope and content of the prior art, the level of ordinary skill in the relevant art, the differences between the claimed invention and the prior art, and whether the claimed invention would have been obvious to one of ordinary

skill in the art in light of those differences. I understand that hindsight must not be used when comparing the prior art to the invention for obviousness. I understand that it is improper to stitch together an obviousness finding from discrete portions of prior art references without considering the references as a whole.

22. Obviousness may be shown by demonstrating that it would have been obvious to modify what is taught in a single piece of prior art to create the patented invention. In addition, obviousness may be shown by showing that it would have been obvious to combine the teachings of more than one item of prior art. In determining whether a piece of prior art could have been combined with other prior art or with other information within the knowledge of one of ordinary skill in the art, multiple approaches and rationales may be considered, including:

- Combining prior art elements according to known methods to yield predictable results;
- Simple substitution of one known element for another to obtain predictable results;
- Use of a known technique to improve similar devices, methods, or products in the same way;
- Applying a known technique to a known device, method, or product ready for improvement to yield predictable results;

- Applying a technique or approach that would have been “obvious to try” (choosing from a finite number of identified, predictable solutions, with a reasonable expectation of success);
- Known work in one field of endeavor may prompt variations of it for use in either the same field or a different one based on design incentives or other market forces if the variations would have been predictable to one of ordinary skill in the art; or
- Some teaching, suggestion, or motivation in the prior art that would have led one of ordinary skill to modify the prior art reference or to combine prior art reference teachings to arrive at the claimed invention.

23. I understand that in order for a prior art combination to render a claim obvious, the cited references must disclose each element of the challenged claim, alone or in combination. Additionally, there must have been some motivation to combine the asserted prior art, and the proposed combination would have rendered the patented claims obvious. I also understand that hindsight is inappropriate, as obviousness must be evaluated at the time of the invention. As part of my obviousness analysis, I have considered the scope and content of the prior art. I also considered whether any differences between the alleged invention and the

prior art are such that the subject matter, as a whole, would have been obvious to a POSITA.

24. It is my understanding that to demonstrate unpatentability, the burden is on the Petitioner to demonstrate that their prior art references disclose, teach, or suggest all limitations of a given claim. To the extent that the cited references do not disclose, teach, or suggest the limitations of an independent claim, then those references also do not disclose, teach, or suggest all the limitations of any dependent claims depending therefrom.

IV. PERSON OF ORDINARY SKILL IN THE ART (“POSITA”)

25. I understand that the teaching of the prior art is viewed through the eyes of a POSITA. Counsel for Wildseed has informed me that a person of ordinary skill in the art is a hypothetical person who is presumed to have known the relevant art at the time of the invention. In my opinion, the relevant field of art for the Patent in Review is that of sending hot links to mobile telecommunication devices. EX1001, 1:23-26. I have also been informed by counsel for Wildseed that a person of ordinary skill is generally familiar with the type of problems encountered in the field and the prior-art solutions to those problems, and possesses an ordinary level of creativity.

26. For purposes of this Declaration, Counsel for Wildseed has asked me to use the date of U.S. Provisional Application No. 60/290,592, filed May 11, 2001, as the priority date.

27. For purposes of this declaration, I have applied Petitioner's definition of a POSITA and level of ordinary skill. *See* Pet., 11-12.

28. Petitioner's definition of a POSITA and level of ordinary skill can also be found in Dr. Houh's Declaration at paragraph 19.

V. METHODOLOGY

29. In arriving at my opinions, I relied upon material that I reviewed as part of my investigations and my analyses.

30. In preparing this Declaration, I have considered the claims, specification, and prosecution history of the '169 patent. As part of my analysis for this Declaration, I have considered my own knowledge and experience, including my work and experience with computer science, software, communications, web-based user interfaces, web sites, email, messages, SMS, RTF, HTML, and programming. Additional materials that I have reviewed in preparing this Declaration include the following documents:

Paper/Exhibit No.	Description
2	Petition for <i>Inter Partes</i> Review Under 35 U.S.C. § 312 and 37 C.F.R. § 42.104 and Exhibits ("Petition")

Paper/Exhibit No.	Description
10	Decision - Granting Institution of <i>Inter Partes</i> Review ("Decision")
1003	Declaration of Henry Houh under 37 C.F.R. § 1.68
1005	U.S. Patent No. 8,645,211 to Rothschild ("Rothschild")
1006	U.S. Patent No. 6,839,411 to Saltanov ("Saltanov")
1007	U.S. Patent No. 6,836,792 to Chen ("Chen")
1008	U.S. Patent Publication No. 2002/0002502 to Maes ("Maes")
2010	<i>Curriculum Vitae</i> of Dr. Sam Malek
2011	Transcript of the Deposition of Henry H. Houh, Ph.D., August 18, 2023
2012	Definition of "control," <i>Microsoft Computer Dictionary</i> , Microsoft Corporation, 2002
2013	"MIME (Multipurpose Internet Mail Extensions): Mechanisms for Specifying and Describing the Format of Internet Message Bodies," RFC 1341, Network Working Group, June 1992, accessible at https://datatracker.ietf.org/doc/html/rfc1341 (last accessed September 13, 2023)
2014	"Base64," mdn web docs, accessible at https://developer.mozilla.org/en-US/docs/Glossary/Base64 (last accessed September 13, 2023)
2015	"Configuring Mail Clients to Send Plain ASCII Text," expita.com, archived by the Web Archive on April 6, 2001, accessible at https://web.archive.org/web/20010406203930/https://expita.com/nomime.html (last accessed September 13, 2023)

Paper/Exhibit No.	Description
2016	"Configuring Mail Clients to Send Plain ASCII Text," expita.com, archived by the Web Archive on June 3, 2002, accessible at https://web.archive.org/web/20020603233741/https://expita.com/nomime.html (last accessed September 13, 2023)
2017	"HTML Forms," W3Schools, accessible at https://www.w3schools.com/html/html_forms.asp (last accessed September 13, 2023)
2018	Scheeres, J., "Friends Don't E-mail Friends HTML," <i>Wired</i> , February 6, 2001, accessible at https://www.wired.com/2001/02/friends-dont-e-mail-friends-html/ (last accessed September 13, 2023)
2019	"Change the message format to HTML, Rich Text Format, or Plain text," Microsoft Support, accessible at https://support.microsoft.com/en-us/office/change-the-message-format-to-html-rich-text-format-or-plain-text-338a389d-11da-47fe-b693-cf41f792fefa (last accessed September 13, 2023)
2020	Excerpts from Microsoft Windows 2000 Student Edition Complete, CustomGuide, Inc., 2002
2021	Aleksandersen, D., "What is the best file format for web shortcuts," Ctrl blog, April 8, 2021, accessible at https://www.ctrl.blog/entry/internet-shortcut-files.html (last accessed September 14, 2023)
2022	ETSI TS 123 140 V3.0.1 (2000-03), Universal Mobile Telecommunications System (UMTS); Multimedia Messaging Service (MMS), Functional description; Stage 2 (3G TS 23.140 version 3.0.1 Release 1999)
2023	3GPP TS 23.040 V5.1.0 (2001-09), 3rd Generation Partnership Project; Technical Specification Group Terminals; Technical realization of the Short Message Service (SMS); (Release 5)

Paper/Exhibit No.	Description
2024	"Forms in HTML Documents," W3.org, accessible at https://www.w3.org/TR/html401/interact/forms.html (last accessed September 14, 2023)
2025	"How can I send SMS using PHP source code?", SidmartinBio, January 3, 2021, accessible at https://biosidmartin.com/how-can-i-send-sms-using-php-source-code/ (last accessed September 14, 2023)

31. I refer to citations in the publications by paragraph number. I refer to citations in the Houh Declaration by paragraph number. I have used the claim numbering convention used by Dr. Houh in his Declaration.

32. When I provide an example or say “for example,” I am not limiting my analysis to only that example.

33. References to documents and testimony herein are meant to provide examples of supporting information but are not intended to be comprehensive or an exhaustive list of all known support.

VI. BACKGROUND OF THE '169 PATENT

34. The '169 patent, titled “Method and systems for generating and sending a hot link associated with a user interface to a device,” issued on December 15, 2020, claims priority to a chain of applications starting with U.S. Provisional Application No. 60/290,592, filed May 11, 2001. EX1001, [45], [54], [60], [63].

35. The '169 patent notes that, at the time of the invention, cellular telephones were becoming more common and widely used for numerous applications, not just phone calls:

The lower cost of ownership, along with the increased services and features available, has made it common for individuals to own a cellular telephone and use it for daily communications. Individuals are no longer restricting the use of their cellular telephone to strictly business or emergency calls.

EX1001, 1:48-53.

36. The '169 patent relates to hot links that improve mobile device functionality. As the '169 patent describes, “the present invention is directed to generating and sending a hot link to a telecommunications device. The hot link is associated with an action that can be performed by the receiving device.” EX1001, 3:59-62. “For example, a hot link may be associated with an action to call another user upon activation of a user interface, or when the hot link is received by the device, automatically performing the associated action.” EX1001, 3:66-4:2.

37. The patent describes that hot links may be automatically generated to enable actions based on user preferences. For example, a hot link, which instructs the user's device to receive the broadcast of a certain song, is generated when it is determined that a particular song is playing:

Hot link application 680 may generate hot links, send hot links, and

receive hot links to/from other devices. Server 640 may route hot links to other devices, as well as be programmed to *automatically generate* hot links and send them to requesting devices. For example, server hot link application 680 may *generate hot links* for a user *based on their user preferences*. One particular example would include *when a user desires to have a hot link sent to his device when a certain song is playing*. When the song is playing, server hot link application 680 may send a hot link instructing the user's device to receive the broadcast of the song when the command button is activated.

EX1001, 11:22-33¹.

38. The '169 patent describes various actions that can be performed upon activation of a hot link, such as a “broadcast action,” “Internet action,” “download action,” “upload action,” “call action,” or “other action.” EX1001, 16:3-8. The action to be performed upon activation of the hot link can be determined automatically, and can depend on the capabilities of the receiving device. For example, the patent explains that “[t]he action to include within the hot link may be provided in many different ways” and “may be automatically identified based on the current use of the device generating the hot link, or manually selected by the user.” EX1001, 16:8-12. The message may also be prepared “according to the

¹ Emphasis added unless otherwise noted.

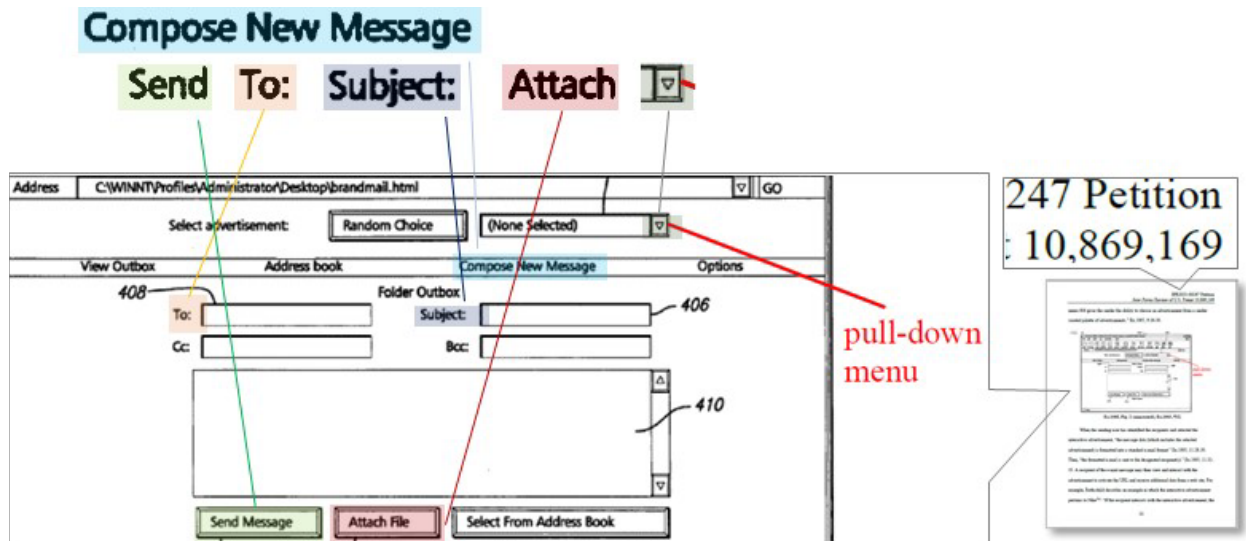
specifications of the receiving device[]]. For example, the instructions to tune a personal computer to a particular broadcast may be different than to tune a mobile device to the same broadcast.” EX1001, 17:9-20.

VII. SUMMARY OF PRIOR ART

A. U.S. Patent No. 8,645,211 (“Rothschild” or “the ’211 patent”)

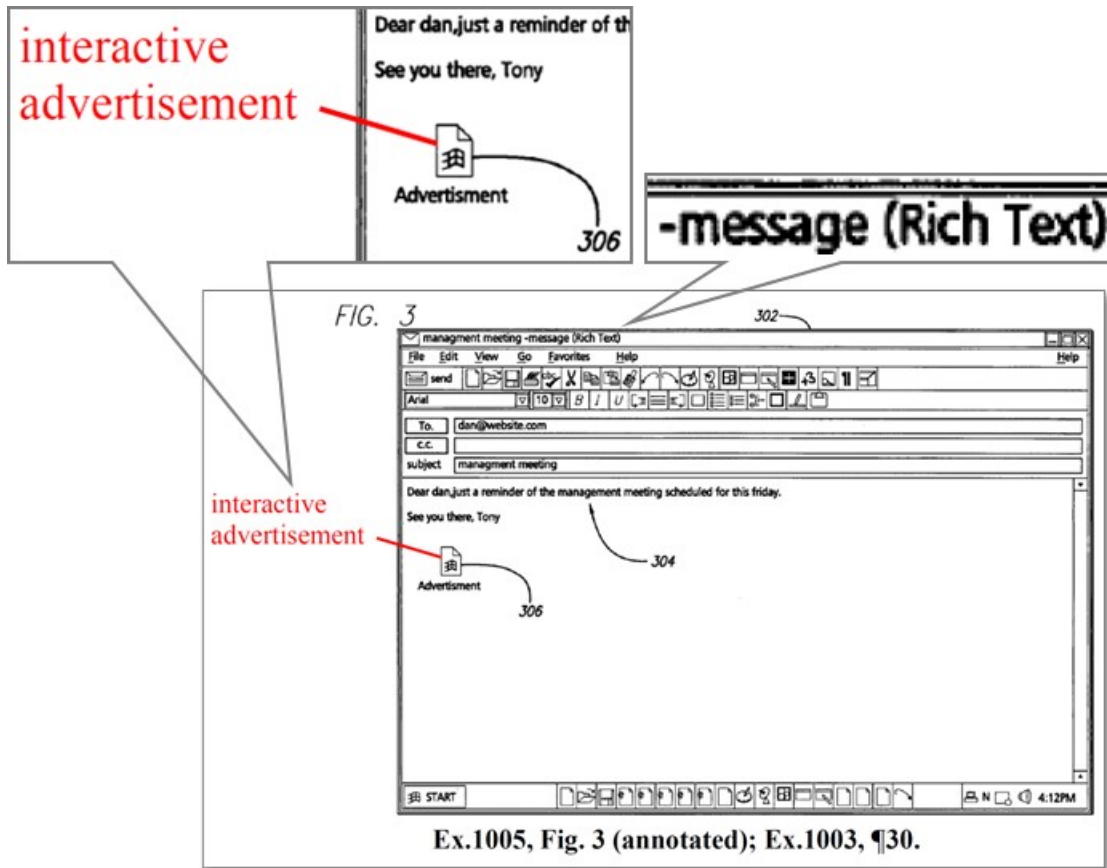
39. Rothschild is directed to techniques for “allow[ing] an Internet user to place an advertisement within a personal communication, and provid[ing] a recipient of the personal communication requesting additional information with such information regardless of the network device the recipient is using.” EX1005, 1:24-31. Rothschild discloses that users create emails and insert advertisements into those emails using a message-composition template. EX1005, 9:11-29 (“If the sender indicates a desire to send an e-mail to a recipient, he may be provided with an e-mail communication page 402, as shown in FIG. 4. . . . The e-mail communication page 402 further provides a pull down menu 404 for selecting an advertisement that is to be included within the e-mail.”). The advertisement can include a URL for retrieving additional information. EX1005, 11:60-65 (“[I]f the advertisement is interactive, . . . additional communication data will be provided. . . . The location of the additional communication data . . . is contained in a URL embedded within the interactive advertisement.”).

40. Rothschild's Figure 4 depicts a message-composition template with buttons and fields for "send," "to," "subject," "attach," and other common email functionality. "FIG. 4. is a diagram illustrating an exemplary Web page utilized to gather data for providing a recipient with an e-mail containing a sender-selected advertisement." EX1005, 5:62-64.



Pet., 23 (citing EX1005, FIG. 4 (annotated)).

41. Rothschild teaches sending email in RTF (Rich Text Format) but not HTML format, with interactive ads included as attachments.



Pet., 21 (citing EX1005, FIG. 3 (annotated)).

- B. U.S. Patent No. 6,836,792 (“Chen” or “the ’792 patent”); U.S. Patent No. 6,839,411 (“Saltanov” or “the ’411 patent”); and U.S. Patent Publication No. 2002/0002502 (“Maes” or “the ’502 publication”)

42. Chen is directed to “providing add-on services to emails transferred via a distributed computer network.” EX1007, 1:6-8. Chen’s disclosed method includes “receiving via the distributed computer network the email at an add-on service system,” and “ascertaining from the email whether a recipient of the email subscribes to at least one of the add-on services.” EX1007, Abstract. The method also “includes forming a post add-on service email, which includes performing,

using the add-on service system, the at least one of the add-on services on at least a first portion of the email.” EX1007, Abstract. Petitioner relies on Chen in combination with Rothschild (Grounds 4-6) as alleged evidence of “why a POSITA would have found it obvious to implement Rothschild’s interactive advertisements using HTML.” Pet., 78. But, as discussed below, Chen does not cure the deficiencies of Rothschild, including Rothschild’s use of Rich Text Format (RTF) for its emails rather than HTML.

43. Petitioner also relies on Saltanov and/or Maes but only for dependent claims 19 and 20 (Grounds 2, 3, 5, and 6). Saltanov is generally directed to “a graphical user interface that displays messages to a user in a manner such that [an] attached or embedded message . . . within a message can be easily viewed with reduced user effort.” EX1006, 2:59-63. Maes is generally directed to “a computer-based tool [that] helps a person choose a product from among many possible products.” EX1008, Abstract. As discussed below, Petitioner has not provided reasons why a POSITA would have been motivated to combine Saltanov and Maes with the system of Rothschild, nor has Petitioner adequately explained how such a combination would have been made.

VIII. THE PETITION AND HOUH DECLARATION FAIL TO SHOW THAT THE '169 PATENT'S CLAIMS WOULD HAVE BEEN OBVIOUS.

44. For the reasons explained in detail below, and based on my review of the '169 patent, file history, and the prior-art references, and my knowledge and experience in the field, it is my opinion that the proposed combinations of Rothschild, Saltanov, Chen, and/or Maes do not render claims 1-22 of the '169 patent obvious. As explained below, the proposed combinations do not disclose each element of claims 1-22, and any differences between claims 1-22 and the combinations proposed by Petitioner would not have been obvious to a POSITA. It is also my opinion that a POSITA would not have been motivated to combine Rothschild with Saltanov, Chen, and/or Maes, as explained below.

45. I address Rothschild in the arguments below, and my opinions apply equally to Petitioner's alternative grounds relying on the combination of Rothschild and Chen (Grounds 4-6).

C. Independent Claims 1 and 10 would not have been obvious in view of Petitioner's asserted grounds.

1. Petitioner fails to establish that the prior art teaches generating a hot link during message creation (limitations 1.1, 10.2).

46. Claims 1 and 10 each require generating a hot link during the message creation process. EX1001, claim 1 ("identify a trigger to *generate a hot link*;"), claim 10 ("a request to *generate a hot link* along with . . ."). Petitioner does not

identify anything in Rothschild that discloses this concept. Instead, Petitioner proposes inserting HTML tags into emails to create hyperlinks and thereby create interactive ads. But Rothschild's express teachings demonstrate that is not how Rothschild worked.

47. Petitioner asserts that Rothschild's interactive advertisement is a "hot link." Pet., 26 ("generating an *interactive advertisement* ('*hot link*')"), 27 ("Rothschild's interactive advertisement teaches a '*hot link*' as claimed"); EX2011, 59:21-60:4 ("Q ... the *interactive advertisement* is the *hotlink* and the hotlink includes the embedded URL. Am I getting that correct? A. *Yeah.*"). Petitioner asserts that the sender receiving, or selecting an ad from, the pull down menu during the message-creation process qualifies as the claimed trigger or request to "generate a hot link." Pet., 26-29. Thus, Petitioner asserts that Rothschild generates an interactive advertisement during the message-creation process.

48. In discussing claim 1's limitation of "generating" a hot link, Petitioner devotes most of its discussion to (1) generating a hot link *message*—as opposed to a hot link, and (2) inserting—rather than generating—a hot link. Pet., 26-29 ("cause an *email* (having an interactive advertisement with an embedded URL) *to be created*"; "triggers *insertion* of the advertisement into an e-mail *message*"). But generating the message (the "hot link message" that includes the hot link) is an additional limitation of the claims and is distinct from the requirement to generate

the hot link itself. EX1001, claim 1 (“generate a hot link message”); Pet., 32; EX2011, 59:3-10 (“[T]he *email* is the *hotlink message* because it contained—when it *contains* the *interactive advertisement* that’s selected.”). The claims require generating—not merely inserting—a hot link. Inserting a pre-existing ad into a new message, for example, does not generate an ad. Instead, the inserted ad already existed. Petitioner’s discussion of limitation 10.2’s requirement to “generate a hot link” merely refers back to its discussion of limitation 1.1. Pet., 49.

49. In its discussion of claims 6 and 8, Petitioner asserts that the hot link is generated when message data is formatted for e-mail. Pet., 46 (citing EX1005, 11:28-30) (“As explained above at [1.4], a ‘*hot link*’ is *generated* when ‘the message data (which includes the selected advertisement) is *formatted* into a standard *e-mail format*.’”); EX1003, ¶97 (repeating the identical language) (note that in [1.4] Petitioner states that formatting creates the hot link *message*, not the hot link); Pet., 42 (“[T]he *hot link* is ‘*generated*’ when the e-mail message *containing* the *hot link* is *formatted*.”) (citing nothing in Rothschild); EX1003, ¶83 (repeating the identical language). Petitioner also refers to “formatting” the message data (including a user-selected ad) “into a standard e-mail format,” in its discussion of “generating a hot link” in claim 1, without stating that formatting generates an interactive ad. Pet., 29.

50. Rothschild does not state that formatting an email generates an interactive ad. Petitioner cites Rothschild at column 11, lines 28-30 (see previous paragraph), which merely refers to formatting, not generating: “At step 516 the message data (which *includes the selected advertisement*) is *formatted* into a standard *e-mail format*.” Thus, Rothschild expressly states that the message data already “includes the selected advertisement.” EX1005, 11:28-30. Tacitly admitting that Rothschild does not disclose generating an interactive ad during the formatting process, and expressly admitting that Rothschild requires its interactive ads to include an embedded URL, Petitioner proposes another idea that Rothschild does not disclose: an interactive ad could have an embedded URL through the use of HTML tags. Pet., 33 (“Rothschild describes an *interactive advertisement* that is displayed with a graphic and includes an *embedded URL . . .*”) (Petitioner then provides its proposed example of using HTML tags: “”); EX1003, ¶59 (repeating the identical language); EX2011, 59:21-60:4 (“Q ... the *interactive advertisement* is the *hotlink* and the hotlink includes the embedded URL. Am I getting that correct? A. *Yeah*.”). Petitioner does not cite anything in Rothschild for using HTML tags in an interactive ad in any situation, let alone using tags to create an interactive ad during the message-generation process. Pet., 32-34. In fact, Rothschild does not use the term “HTML.”

51. In sum, Petitioner asserts that when Rothschild formats an email message, it generates an interactive ad, and it could do so by using HTML tags. Pet., 32-34, 42, 46. But Rothschild's disclosure contradicts Petitioner's assertion, as the following sections demonstrate.

a. The email-formatting step that Petitioner cites does not generate or edit an interactive ad, as Dr. Houh admitted at deposition.

52. I note that Dr. Houh admitted in deposition that when the user presses the "send" button in Rothschild's e-mail composition interface, *see* EX1005, FIG. 4, the email already includes the interactive ad. EX2011, 179:4-180:12. Petitioner asserts that the email-formatting step 516 generates an interactive ad, as discussed in the previous section. Formatting step 516, however, occurs after the user presses the "send" button. Thus, Dr. Houh disproved Petitioner's sole theory regarding generating a hot link—as opposed to a hot link *message*.

53. Specifically, Dr. Houh admitted that when the user hits the "send" button as described in Rothschild at column 9, line 57, the email is fully composed and already includes the hot link (interactive ad that contains an embedded URL). Dr. Houh supposed that the interactive ad would be inserted into the text box "message space 410" before the user hits "send."

[T]hat information would be used by the server to *retrieve the ad to send back to the client to insert the ad*, because the server has knowledge of the details.

And then as the user is composing the rest of the message, they can hit “Send,” in which case the message would be posted to the server again—or the *whole message that is ready to send in ready-to-send format*, and that’s what it’s talking about . . . starting at *line 57 in Rothschild of column 9*.

And so . . . one way it can be done is the server would then reply with *the actual selected ad* . . . and then . . . *that fragment would be inserted*, and then the user can compose other things

So *that’s how the actual text of the—or the code of the hotlink, in whatever form, including in the HTML form*, as exemplified in *my Declaration*, would end up in *that message box 410*.

EX2011, 179:4-180:12. Dr. Houh could not identify anything in Rothschild that disclosed sending the user’s selected ad before pressing the “send” button, however, because he misunderstood how Rothschild works.

Q . . . Are you saying that there’s any disclosure in Rothschild of *sending that selected ad to the server before the user hits the “Send” button*?

A You know, I was *looking for that*, and *I didn’t specifically see that in my review* right now.

EX2011, 191:3-9.

54. The passage of Rothschild that Dr. Houh referred to (column 9, line 57) relates to pressing the “send” button to send the email, including the selected ad, to the designated recipient(s). EX1005, 9:57-60 (“[T]he sender can depress the

send message button 414 to send the e-mail (which includes the attachment(s) and the selected advertisement) to the designated recipient(s).”). Rothschild also provides a more detailed description of what occurs when a user presses the send button 414. The end result of the message entry screen of Figure 4 is a compilation of data that the sender’s device provides to the server. The server takes that compilation of data, formats the message data including the ad, and sends the email.

[T]he advertising application provides the sender network device with an e-mail communication page (see FIG. 4), enabling the sender to enter . . . a selected advertisement that should accompany the completed e-mail. The end result is a *compilation of data*. . . . The advertising application . . . receives a response from the sender network device indicating that a *compilation of data* is being submitted. At step 512, the advertising application receives the *compilation of data*, which includes message data, sender data, and advertisement data. . . . At step 516 the *message data (which includes the selected advertisement)* is *formatted into a standard e-mail format*. . . . At step 520, the formatted e-mail is sent to the designated recipient(s).

EX1005, 11:5-33. The formatting step quoted in the previous paragraph, at column 11, lines 28-30, is exactly what Petitioner relies on for generating a hot link. Pet., 46 (citing EX1005, 11:28-30) (“As explained above at [1.4], a ‘*hot link*’ is *generated* when ‘the message data (which includes the selected advertisement) is *formatted into a standard e-mail format*.’”).

55. Dr. Houh's admission that the interactive ad already exists before email formatting step 516 is consistent with Rothschild's teaching that formatting to put data into an email format does not generate or alter an interactive ad. Specifically, Rothschild discloses formatting the email a second time, immediately after the first formatting of the message data. Like the initial formatting, the re-formatting changes the format of data that "includes the sender-selected advertisement." It does not generate or edit the ad, which is already in the email data. The re-formatting is performed in order to satisfy email format requirements, not to generate or edit an ad.

At step 516 the *message data* (which includes the selected advertisement) is formatted into a standard e-mail format. The formatted e-mail's reply-to address is changed, at step 518, to reflect the senders e-mail address that was provided by the sender upon registration. At step 520, the *formatted e-mail* is sent to the designated recipient(s).

Referring back to FIG. 2, assuming the designated recipient is the recipient network device 130, the *formatted e-mail* is routed from the Web site 110 to the recipient e-mail server 210, where the *e-mail is re-formatted* so that it can be read by the recipient network device 130. For example . . . to *re-format* incoming e-mails so they are properly displayed on the mobile phone's display. . . . Additionally, the same platform independent architecture . . . will be used in connection with the e-mail server, thus allowing e-mails to be transmitted to a variety of network devices, regardless of the different *e-mail format*

requirements. Regardless of which e-mail server is used, the *re-formatted e-mail* (which contains the *sender-selected advertisement*) is forwarded on

EX1005, 11:28-56.

56. Therefore, Rothschild does not disclose “generat[ing] a hot link” as part of the email formatting process, as Petitioner contends, because the identified “hot link” previously existed.

b. Rothschild sends pre-existing interactive ads that already have an embedded URL; ads are not generated during the message creation process (limitations 1.1, 10.2).

57. Rothschild’s Figures 10-11 and accompanying specification passages expressly teach that the sender selects a pre-existing interactive advertisement that already has an embedded URL, adds it to a message, and sends the message with the untouched pre-existing ad to another user, without any email-formatting step. Rothschild teaches sending messages with an interactive ad from a mobile device using two alternatives: (1) SMS, where a mobile device sends an SMS message directly to another device without the internet, the server, or any formatting, and (2) email, where the mobile device sends message data to a server that formats the email and sends the message to another user. Figure 9 shows sending an e-mail via a server, Figure 10 shows sending SMS directly to another device without a server, and Figure 11 shows the flow for both processes.

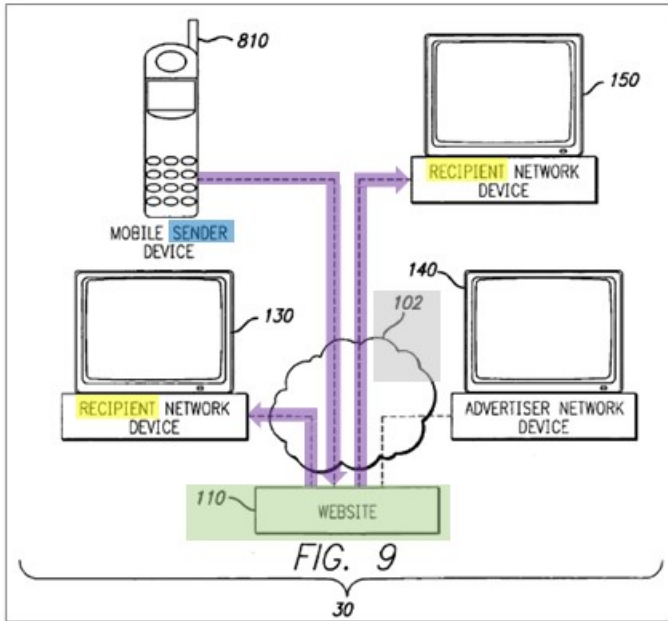


Fig 9: send email
via internet 102 &
website 110

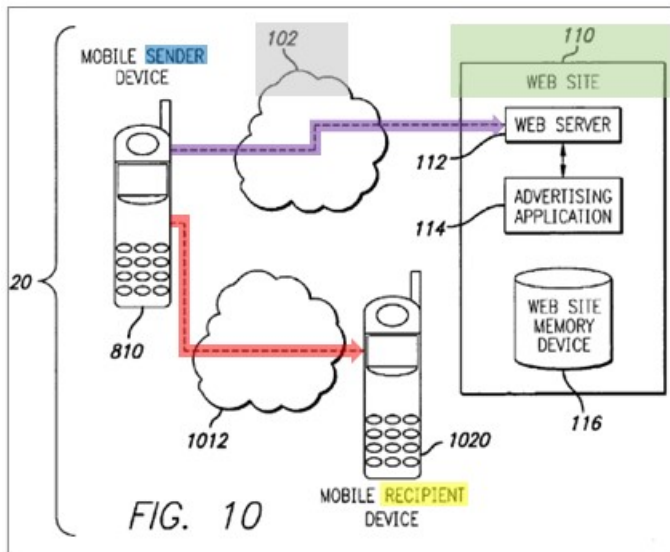


Fig 10: communicate
with website 110 via
internet 102

but

send SMS directly to
recipient

without website 110
or internet 102

EX1005, FIGs. 9, 10 (annotated).

58. “In [Figure 9], the mobile client . . . works together with the advertising application 114 (see FIG. 2) to route an e-mail containing an advertisement to a recipient . . .” EX1005, 15:10-15. “FIG. 10 . . . allows the mobile sender device to transmit a personal communication directly to a mobile

recipient device 1020, without the entire communication first being routed through the Internet.” EX1005, 15:48-51.

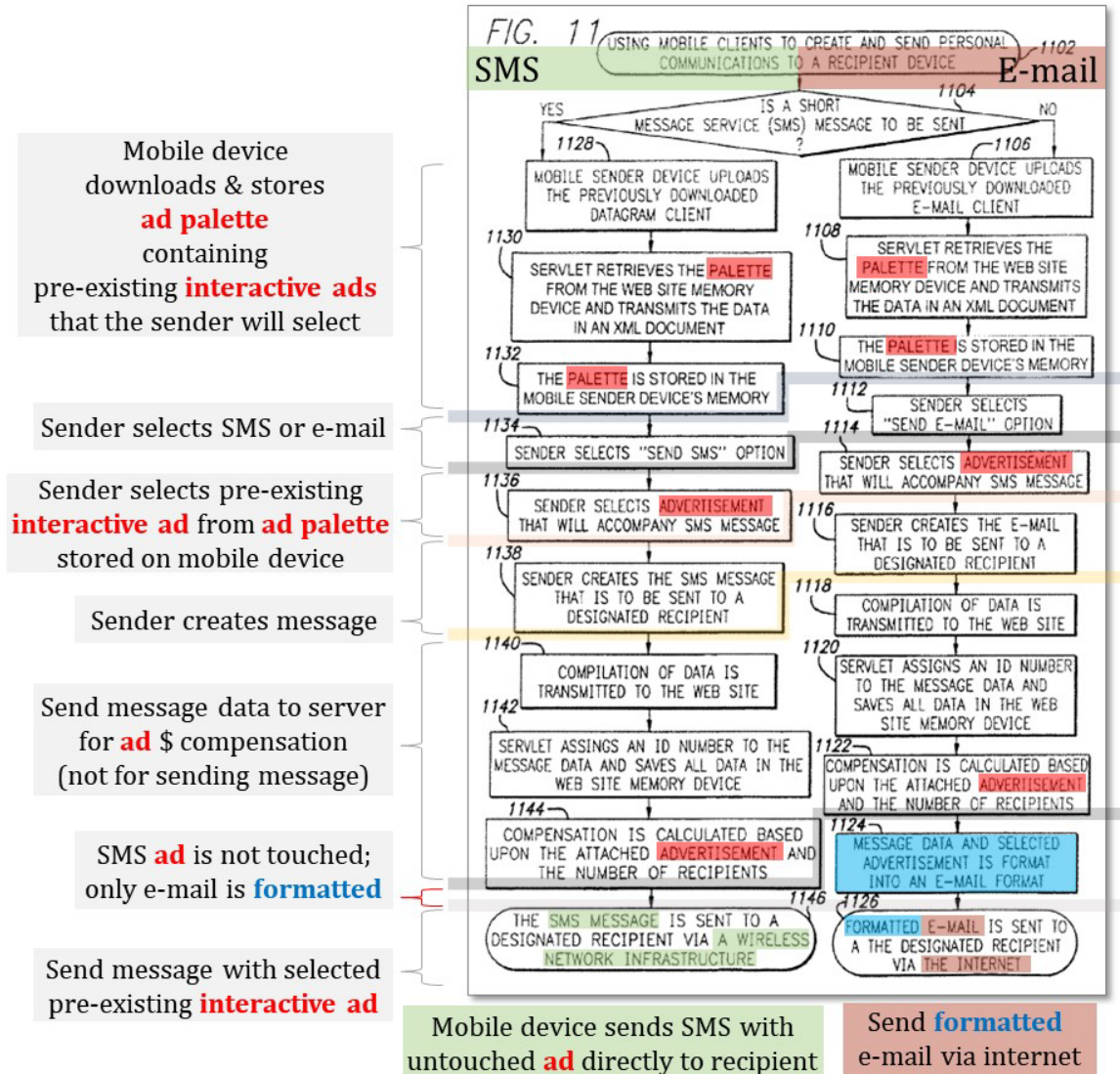
59. Messages sent directly from a mobile device to another mobile device can attach interactive ads, just like e-mail messages. EX1005, 16:3-9 (“If the mobile recipient device 1020 interacts with an *interactive advertisement* contained within the personal communication (e.g., *SMS*) . . .”). The user selects interactive ads from an ad palette to include them in SMS messages. The ad palette is populated with pre-existing ads that the user previously added to the ad palette. Regardless of whether the user sends an SMS or e-mail message, the interactive ads are exactly the same, because in both cases, the interactive ad is selected from the sender’s “individual” ad palette.

Each sender is allowed to generate an individual palette of advertisements stored in the Web site memory device 116 (see FIG. 2). The palette contains advertisements that the sender has previously selected. . . . Once the sender has a palette of advertisements, those particular advertisements will be displayed to the sender [for selection during the message-creation process] . . .

EX1005, 9:32-50.

60. Figure 11 and the accompanying text state that the SMS and email processes are the same for most of the steps of sending a message that includes an interactive ad. Figure 11 shows the process for SMS (left half) and email (right

half), moving from top to bottom, with nearly all steps being identical except that SMS does not have any formatting step.



EX1005, FIG. 11 (annotated).

61. In both SMS and e-mail, the mobile device downloads and stores the ad palette—which as discussed above is the sender’s individual ad palette that contains pre-existing ads that the user previously selected. EX1005, 9:32-50.

If an *SMS* message is to be sent . . . [t]his prompts a control servlet . . .

to retrieve the *sender's palette of advertisements . . . and transmit the palette* in an XML document *to the mobile sender device*. At step 1132, the *palette* is received and *stored in the mobile sender device's memory*.

. . .

At step 1104, if the sender determines that an *e-mail* message is to be sent via the Internet . . . [t]his prompts a control servlet . . . to retrieve the *sender's palette of advertisements . . . and transmit the palette* in an XML document *to the mobile sender device*. At step 1110, the *palette* is received and *stored in the mobile sender device's memory*.

EX1005, 16:18-25 (SMS), 18:53-61 (email), FIG. 11.

62. The step of downloading and storing all ads in advance is significant. Dr. Houh supposed that a server might fetch an ad after a user selects it, in a different embodiment (involving pull down menu 404). EX2011, 179:4-180:12. But that is not the case in the mobile device embodiment. Instead, the entire ad palette, with all of the ads that a user could select at step 1136 (SMS) or 1114 (email), are downloaded and stored in the mobile device before the user selects any ad. The mobile device does not receive an additional copy of the ad after the user selects it.

63. After the mobile device download and stores the ad palette, the sender chooses to create an SMS or e-mail message. "The sender then selects . . . 'send SMS' The sender then selects . . . 'send *e-mail*'"

EX1005, 16:26-28 (SMS), 16:61-63 (email), FIG. 11. The sender selects an ad

from the ad palette that was downloaded and stored on the mobile device.

[T]he sender *selects* an *advertisement* from the *palette* that will accompany the *SMS* message.

...

[T]he sender *selects* an *advertisement* from the *palette* that will accompany the *e-mail* message.

EX1005, 16:28-30 (SMS), 16:63-65 (email), FIG. 11. The mobile device sends a compilation of data to a server regarding the message and selected ad. That compilation of data is used for determining how much to compensate the sender for sending the ad. It is not used for sending an SMS message, as will be discussed next.

A *compilation of data* is then transmitted to a control servlet operating on the Web site, at step 1140, which includes message data, sender data, and advertisement data. . . . At step 1144, the advertising application determines the *compensation* that is due the sender based upon the selected advertisement

...

A *compilation of data* is then transmitted to a control servlet operating on the Web site, at step 1118, which includes message data, sender data, and advertisement data. ... At step 1122, the advertising application determines the *compensation* that is due the sender based upon the selected advertisement

EX1005, 16:32-42 (SMS), 16:67-17:10 (email), FIG. 11.

64. After that, the flow for sending SMS and e-mail messages differ significantly because e-mail is formatted and sent via Rothschild's server, but SMS is not. Specifically, the data for an e-mail message is formatted into an e-mail format, then sent via the internet. EX1005, FIG. 11, 17:10-12 ("The *e-mail* message, along with the *selected advertisement*, is then *formatted*, at step 1124, into an *e-mail format*."). The SMS message and interactive ad, however, is not formatted or otherwise touched by anything in Rothschild's system. There is no formatting step for the SMS message, only for e-mail. EX1005, FIG. 11 (no step in the flow for SMS messages between 1144 and 1146).

65. The email message is sent by a server via the internet. EX1005, 17:12-14 ("[T]he *formatted e-mail message* is sent by the *advertising application* to the designated recipient network device *over the Internet*."); see also EX1005, FIG. 9 (annotated above) (sending message through web site). In the case of SMS, however, the mobile device, not the server, sends the SMS message and selected interactive ad to the recipient without using Rothschild's server.

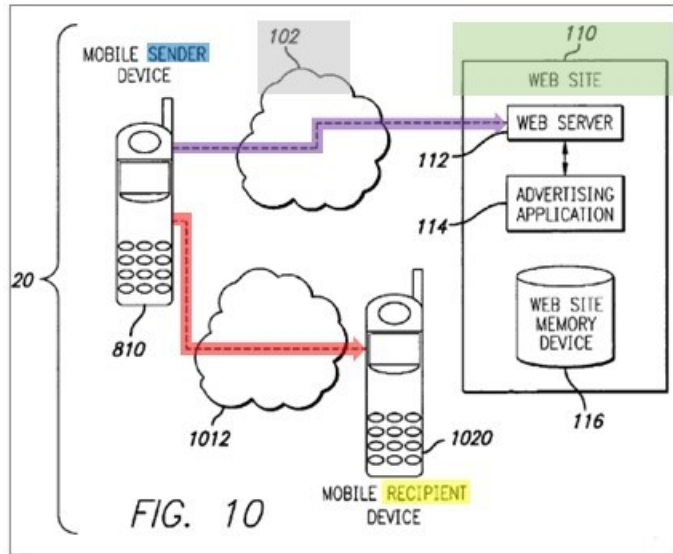


Fig 10: communicate with website 110 via internet 102

but

send SMS directly to recipient

without website 110 or internet 102

EX1005, FIG. 10 (annotated, discussed above, sending message directly to another device without using the web site or the internet).

The SMS message, along with the *selected advertisement*, is sent by the *mobile sender device*, at step 1146, to the designated *mobile recipient device* over a *wireless network infrastructure*.

EX1005, 16:42-45, FIG. 11 (step 1146, last step for SMS).

66. Therefore, the mobile device sends an SMS with a pre-existing interactive ad—specifically, the interactive ad that the sender selected and that was previously downloaded and stored on the mobile device. The SMS message includes the actual ad that was selected, because that is how the SMS message sends the ad; there is no additional step of a server fetching the selected ad, for example. EX1005, 16:42-45, FIG. 11. Further, the interactive ad that is attached to the SMS message is never edited. Instead, the mobile device sends an SMS with

the attached, untouched, pre-existing interactive ad and sends it directly to another device. EX1005, 16:42-45, FIG. 11.

67. The interactive ad is pre-existing, not generated, as Figure 11 and the accompanying text illustrate. EX1005, 16:42-45, FIG. 11. In the case of SMS, there is no email-formatting step. The email-formatting step is Petitioner's sole basis for asserting that the interactive ad is generated during the message creation process. The mobile device sends the SMS message with the selected pre-existing interactive ad, without any editing, directly to another device without passing through Rothschild's server. EX1005, 16:42-45, FIG. 11. In the case of e-mail, the process is nearly identical. Therefore, no step generates an interactive ad; regardless of whether the sender chooses to send an SMS or e-mail message, the sender selects the same interactive ads from the same "individual" ad palette for that user—the palette that is downloaded and stored on the mobile device. EX1005, 16:42-45, FIG. 11. Thus, the ad that the user selects is already an interactive ad when the user selects it. The e-mail formatting is performed on data that already includes the pre-existing interactive ad—the same preexisting ad that can be sent via SMS without formatting and without Rothschild's server. EX1005, 17:10-12 ("The *e-mail* message, along with the *selected advertisement*, is then *formatted*, at step 1124, into an *e-mail format*."). Therefore, the e-mail formatting step formats data into an email message, but it does not alter—let alone generate—

the interactive ad. EX1005, FIG. 11. Although Figure 11 of Rothschild shows “SMS”, a POISTA would have known the invention is not limited to SMS. The specification makes it clear that any other wireless message sending format at the time could be used. (“It should be appreciated that in this embodiment, the personal communications includes communications sent using a short message service (SMS) or any other wireless message sending format generally known to those skilled in the art.” See Rothschild, 15:51-55.) A POSITA would have been familiar with other well-known wireless message sending formats at the time, such as Multimedia Messaging Service (MMS), and would have recognized that MMS could be used in place of SMS. *See* EX2022. Moreover, at the time of invention, a POSITA would have been familiar with the SMS features, including the Enhanced Messaging Service (EMS). *See* EX2023. EMS extends the standard SMS with features that allowed the text of the message to be formatted and attach, among others, pictures, animations, sound, and vCard objects. EX2023, 25 (Chapter 3.10). EMS also supported hyperlinks. EX2023, 62 (Chapter 9.2.3.24.12). A POSITA would have known that SMS including its enhanced features or any other wireless message sending format, such as MMS, could be used in the Rothschild invention.

c. Ads selected using the pull down menu are pre-existing interactive ads that already have an embedded URL.

68. Rothschild’s Figure 11’s process of sending an SMS or email message shows that when the user selects an ad from the ad palette, the user selects and

sends a pre-existing interactive ad, as the previous section demonstrates. To recap, the mobile device receives and stores the user's ad palette. The user selects an interactive ad from that locally-stored ad palette. The mobile device sends an SMS with an attached interactive ad—an ad that is stored in the ad palette—directly to another mobile device.

69. For that reason, interactive ads are pre-existing when selected using the pull down menu 404 that Petitioner relies on for the claimed “trigger.” Pet., 26-29. Pull down menu 404 presents only those ads that are already saved in the user's ad palette. The same ad palette is used for SMS messages and the pull down menu because each user has only one ad palette.

The pull down menu 404 gives the sender the ability to choose an advertisement from a sender created palette of advertisements. Each sender is allowed to generate an individual palette of advertisements stored in the Web site memory device 116 (see FIG. 2). The palette contains advertisements that the sender has previously selected. . . . Once the sender has a palette of advertisements, those particular advertisements will be displayed to the sender through the pull down menu 404.

EX1005, 9:32-50.

70. Because the pull down menu shows ads from the ad palette, and the ad palette stores interactive ads that already have an embedded URL, all interactive ads that the user selects using the pull down menu are already fully-formed and

already have an embedded URL. That same interactive ad saved in an ad palette and selected through pull down menu 404 could be sent via SMS. A mobile device sends an SMS message with a pre-existing interactive ad that is saved to the ad palette, and the ad palette is downloaded and stored on the mobile device, as discussed in the previous section.

71. Thus, when a user selects an interactive ad from the pull down menu, that ad already has an embedded URL and is already a fully formed interactive ad. There is no generation of an interactive ad (*i.e.*, “generat[ing] a hot link,” as the claims require) by selecting one from the pull down menu.

2. Petitioner has not identified any trigger to generate a hot link (limitation 1.1).

72. The hot link is already generated before the pull down menu 404 is sent to the user, and therefore before the user selects an item from that menu, as discussed in the previous section. Therefore, both of Petitioner’s theories regarding claim limitation 1.1 “identify a trigger to generate a hot link” are wrong, because each theory requires the pull down menu 404 to include ads that have not already been generated. As clarified by Dr. Houh at deposition, Petitioner has two theories. The first theory is that a trigger to generate a hot link is identified when the server creates the list of ads for the pull down menu and provides it to the sender.

The server *identifies the trigger* when it *provides* the sending user’s

device with the email communication page that contains the *pull-down menu*.

...

... the server, in composing this page, has to fill out this list of everything that's *going to appear in the drop-down*.

...

... when it *provides all that information* so the user's device renders this page, that's where I say it's an example of the Rothschild server *identifies the trigger*.

EX2011, 65:10-66:4; Pet., 26. Dr. Houh clarified that each ad in the pull down (or drop-down) menu, not the entire pull down menu, is a "trigger" in his opinion.

... that's not what I'm saying, [] that the whole of the drop-down menu is the trigger. The trigger is identified because there are any number of *triggers* that the users can select *within the drop-down menu*.

And so ... the server is *identifying* any of the *triggers* that the users *can select* in that process of providing ... the whole drop-down menu.

EX2011, 86:22-88:8. Each of the interactive ads in the pull down menu, however, is already generated before it is included in the pull down menu, as discussed in the previous section.

73. Petitioner's second theory is that the trigger is identified when a server receives a user's selection of an ad from the pull down menu. Pet., 27. This

theory is based on Dr. Houh's misunderstanding of Rothschild. He supposed that after the user selects an ad, the server fetches the ad and returns it to the sender to populate the message, before the user presses the "send" button.

So this is an alternative, a second way that Rothschild discloses *identifying a trigger to generate a hotlink*.

So in this way, the user clicks the *drop-down menu*, ... there's a list of different *advertisements* that can be inserted into the message, and they *select* one.

And then when the user inserts that, that *selection ... is transmitted to the server*, and the *server* then *provides the advertisement* to be inserted—to *populate the message*.

EX2011, 68:1-16; 179:4-180:12; Pet., 27. Dr. Houh could not identify anything in Rothschild that supported his theory regarding sending the user's selected ad before pressing the "send" button.

Q ... Are you saying that there's any disclosure in Rothschild of *sending that selected ad* to the server *before the user hits* the 'Send' button?

A You know, I was *looking for that*, and *I didn't specifically see that in my review* right now.

EX2011, 191: 3-9.

74. When the server identifies interactive ads to include in the pull down menu, those ads have already been generated and are available for attaching to SMS messages. Identifying the menu, or the ads that are shown in the menu, or the user's selection of an ad from the menu, is not a trigger to generate an interactive ad, but rather a way to select a pre-existing ad. Rothschild 9:32-50 (*Once the*

sender has a palette of advertisements, those particular advertisements will be displayed to the sender through the pull down menu 404.)

3. **Rothschild discloses sending pre-existing interactive ads without generating them, and without using HTML, let alone <a href> tags (limitations 1.1, 10.2).**
 - a. **Petitioner's argument relies on the false assumption that Rothschild's interactive advertisements are in HTML format.**

75. Petitioner's asserts incorrectly that a POSITA would recognize that Rothschild's interactive advertisements are implemented using HTML: "Given that Rothschild describes an interactive advertisement that is displayed with a graphic and includes an embedded URL, *a POSITA would have recognized that such interactive advertisement would be implemented using HTML.*" Pet., 33. Petitioner then relies on HTML tags to meet the "instructions" recited in claims 1 and 10. Pet., 33-34. But nowhere does Rothschild teach that its e-mails use HTML format, nor is that inherent.

76. Contrary to Petitioner's assertion, Rothschild's only disclosed examples of messages with interactive ads are not emails in HTML format. Rothschild discloses attaching interactive ads to SMS messages, which do not use HTML. Furthermore, Rothschild's sole visual example of an email with an interactive ad is an email in RTF—not HTML—format, with the interactive ad

included as an attachment, without using HTML. Plain text is yet another email format that allows sending attachments. EX2019.

77. Dr. Houh did not consider the fact that Rothschild discloses RTF when he formed his opinions. Indeed, Dr. Houh was not aware of the existence of RTF format, and mistakenly believed that HTML was the only format for rich email at the time of the invention. EX2011, 113:12-17 (“... *HTML* ... was the *only method that I know* of at the time to render—to show *rich email*.”) Rich Text Format, like HTML, allows formatting the text of a message, in contrast to plain text format, which does not. EX2019, 2 (“*Plain text . . . doesn’t support bold or italic text, colored fonts, or other text formatting. . . . With RTF, you can format text . . .*”).

78. Due to the various problems associated with HTML emails, around the time of invention, emails were frequently sent in plain text or RTF. Around the time of invention many email clients were not HTML-compatible, which meant that they could not properly display an HTML email; for instance, they would display the HTML email as pure text including all its HTML tags. *See* EX2015. One solution to this problem was to include both the HTML formatted content and pure text content in an HTML email, such that if the recipient email client did not support HTML, it could display the pure text version of email. But this resulted in approximately doubling the size of emails, which was a significant overhead for

the resource-constrained networks and devices of the 2001-era. In addition, HTML email is substantially more difficult to process and display than the equivalent pure text or RTF email, because of all the additional tags and styling information that needs to be transmitted, loaded, and applied to the content before the email is displayed. *See* EX2015. This was particularly a problem for mobile devices that were highly resource constrained. EX2016, 2 (“HTML quickly fills the memory of PDAs (Personal Digital Assistants like the Palm Pilot). In addition, many HTML messages are also completely unreadable on most PDAs.”). EX2015. Even among email clients that supported HTML, due to incompatibility in how HTML was interpreted and rendered by browsers in the 2001-era, emails formatted in HTML could look different depending on the browser technology used to display them. *See* EX2015. Finally, around the time of invention, there were well-known security and privacy risks associated with the use of HTML emails that hindered their wide adoption. *See* EX2018.

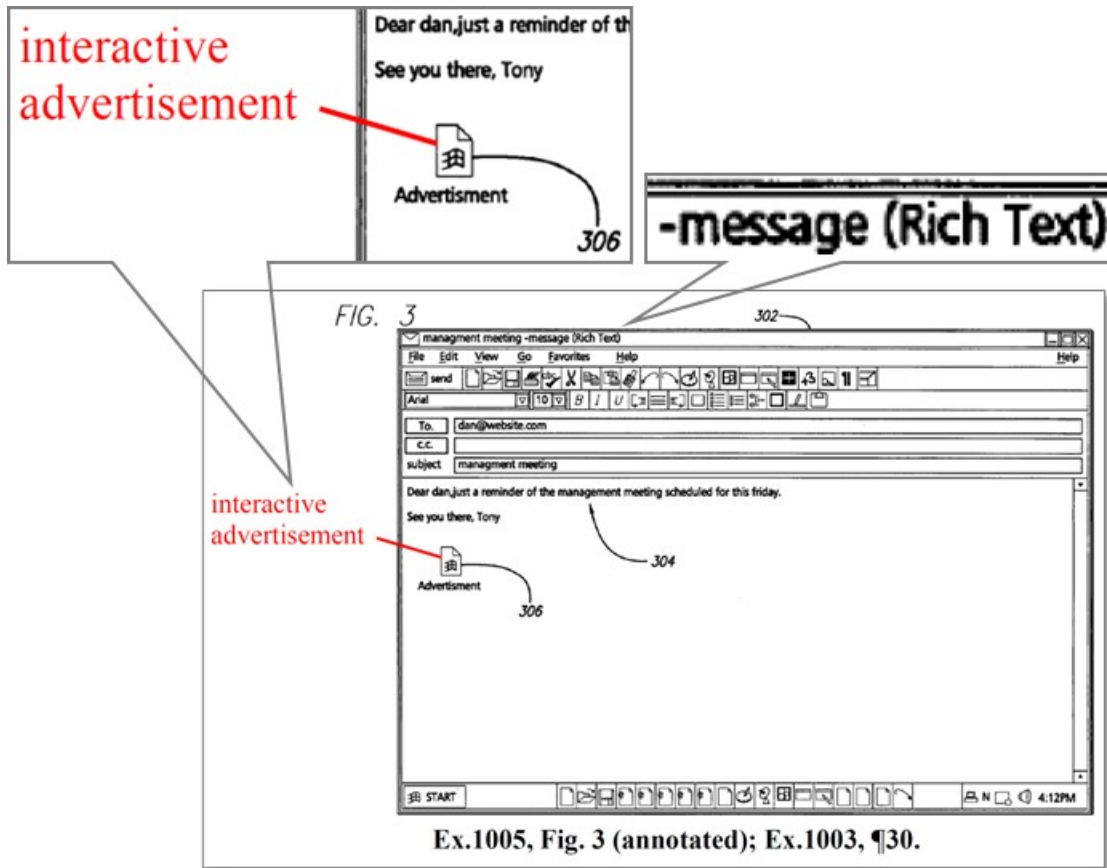
79. Petitioner has not shown that email in HTML format would necessarily have been used in Rothschild’s system, or explained why a POSITA would have sought to use emails formatted in HTML instead of RTF, as Rothschild expressly teaches.

b. Rothschild discloses sending interactive ads attached to RTF format emails, without any HTML formatting or HTML tags.

80. Petitioner proposes that when Rothschild formats an e-mail, that could involve inserting HTML tags to generate an interactive ad. Pet., 32-34, 42, 46. That is wrong because the interactive ad already exists before the user selects it.

81. Further, Figure 3 shows that Rothschild can send an interactive ad in an email that is formatted, without any HTML formatting or HTML tags.

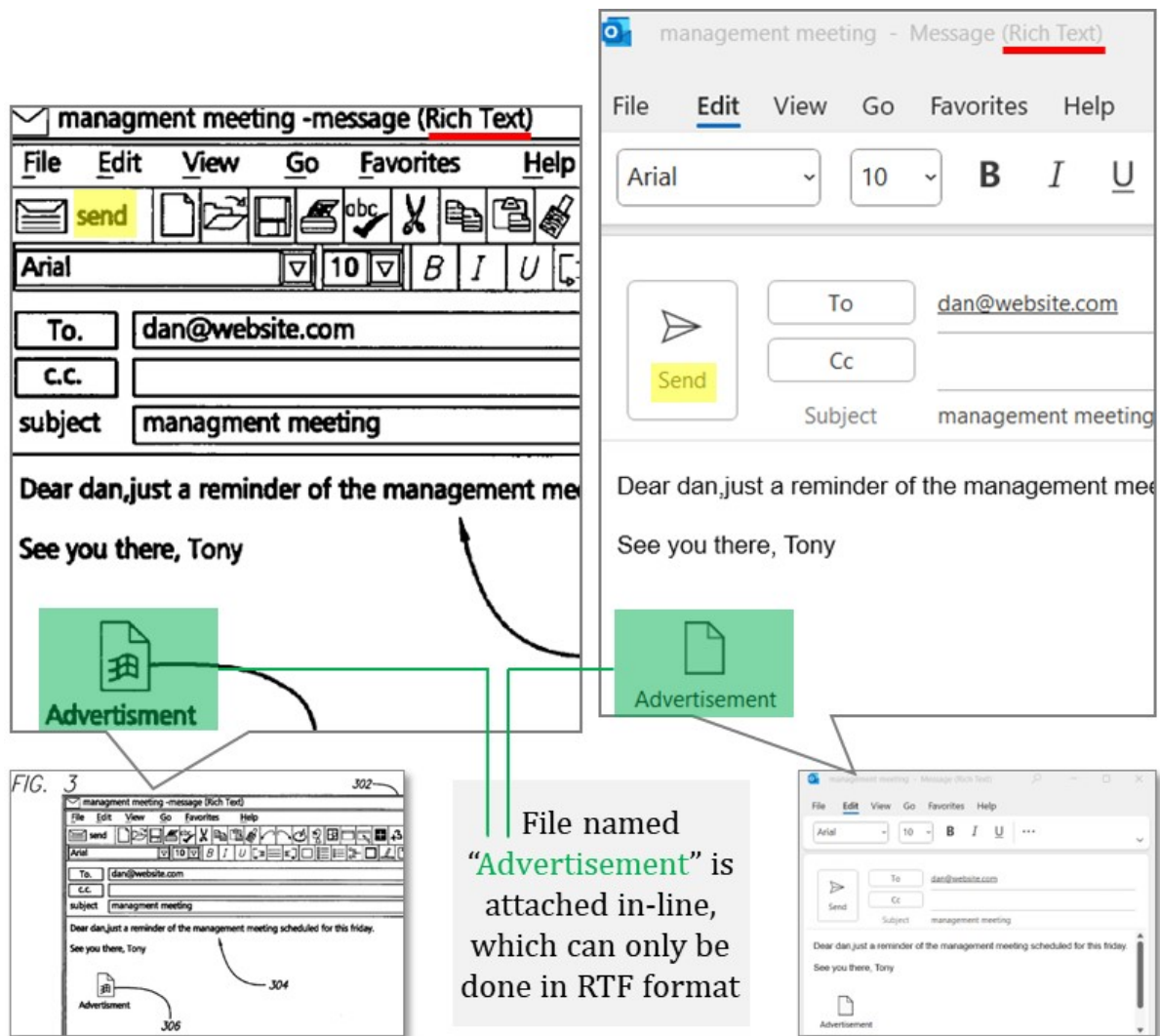
82. Figure 3 shows an email message in a Microsoft Outlook email client. The message in Figure 3 is in Rich Text Format, not HTML format, as Figure 3 itself expressly states at the top of the message (“Rich Text”). The email includes a sender-selected ad, which can be interactive, as Petitioner points out.



Pet., 21, showing annotated EX1005, FIG. 3 (annotated).

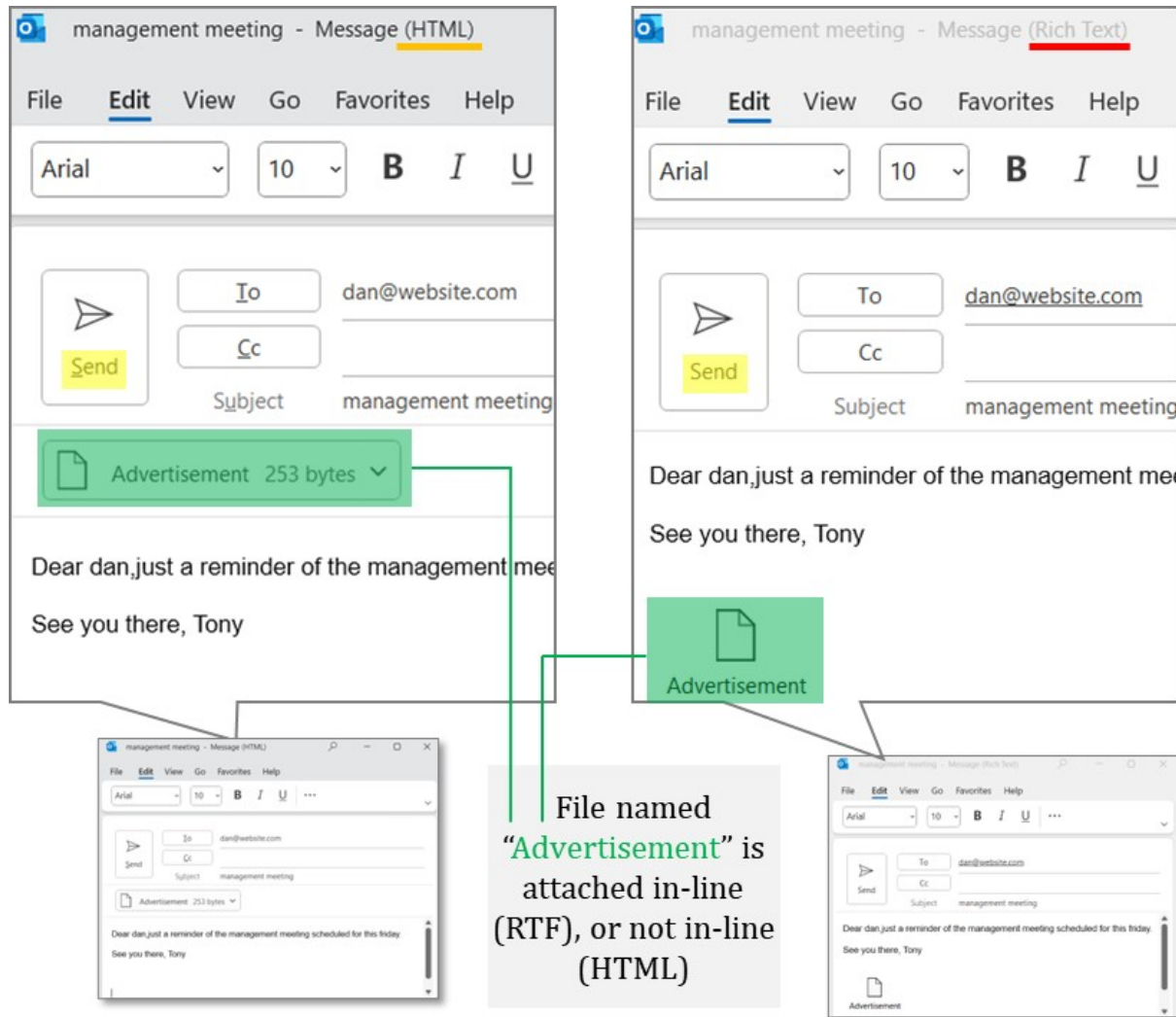
Pet., 21, showing annotated EX1005, FIG. 3 (annotated); 8:31-37 (“The e-mail message contains a personal message 304 If the *sender—selected advertisement 306* is an *interactive advertisement ...*”). The interactive ad is attached in-line with the message, rather than being attached outside of the message body—which is a feature that Outlook offers only for RTF messages, not HTML messages. EX2019(“*Attachments in an RTF message appear as icons within the message body. In HTML messages, however, attachments appear underneath the subject header of a message.*”).

83. Figure 3 is an accurate representation of an RTF email with an in-line attachment. Below is a recreation of the email, shown next to Figure 3. Both emails use RTF format and have a file named “Advertisement” attached in-line.



EX1005, FIG. 3 (annotated).

Here is the HTML format version of the same email, which states “HTML” rather than “Rich Text” in the title, and attaches the same “Advertisement” file, but not in-line.



Recreation of EX1005, FIG. 3.

84. RTF stands for Rich Text Format. It is a file format developed by Microsoft for saving and sharing documents. It is not a markup language, like HTML. Rather it allows for certain formatting instructions to be specified in the form of control words. For instance, \b0 is a control word that indicates the text following it is not bold, while \b1 indicates the text following it is bold.

85. Thus, the email of Figure 3 is formatted for email, but that formatting step uses RTF, not HTML. Formatting the plain text into RTF format does not insert any HTML tags, because RTF does not use HTML, as the real world example below demonstrates. Here is the text of the message of Figure 3 in plain text, RTF, and HTML format:

body - plain.txt body - rtf.txt body - html.txt

File Edit View

<div dir="ltr">Dear dan,just a reminder of the management meeting scheduled for this friday.

See you there, Tony
</div>

HTML, with
 for line breaks

body - plain.txt body - rtf.txt body - html.txt

File Edit View

Dear dan,just a reminder of the management meeting scheduled for this friday.
\par
\par \hich\af1\dbch\af31505\loch\f1 See you there, Tony

RTF, with \par for paragraph breaks

body - plain.txt body - rtf.txt body - html.txt

File Edit View

Dear dan,just a reminder of the management meeting scheduled for this friday.
See you there, Tony

Plain text

body - plain.txt body - rtf.txt body - html.txt

Dear dan,just a reminder of the management meeting scheduled for this friday.
See you there, Tony

RTF decoded to plain text

FIG. 3

management meeting - message (Rich Text)

File Edit View Go Favorites Help

Send

From: dan@website.com

To: dan@website.com

Subject: management meeting

Dear dan,just a reminder of the management meeting scheduled for this friday.

See you there, Tony

Advertisement

302

304

305

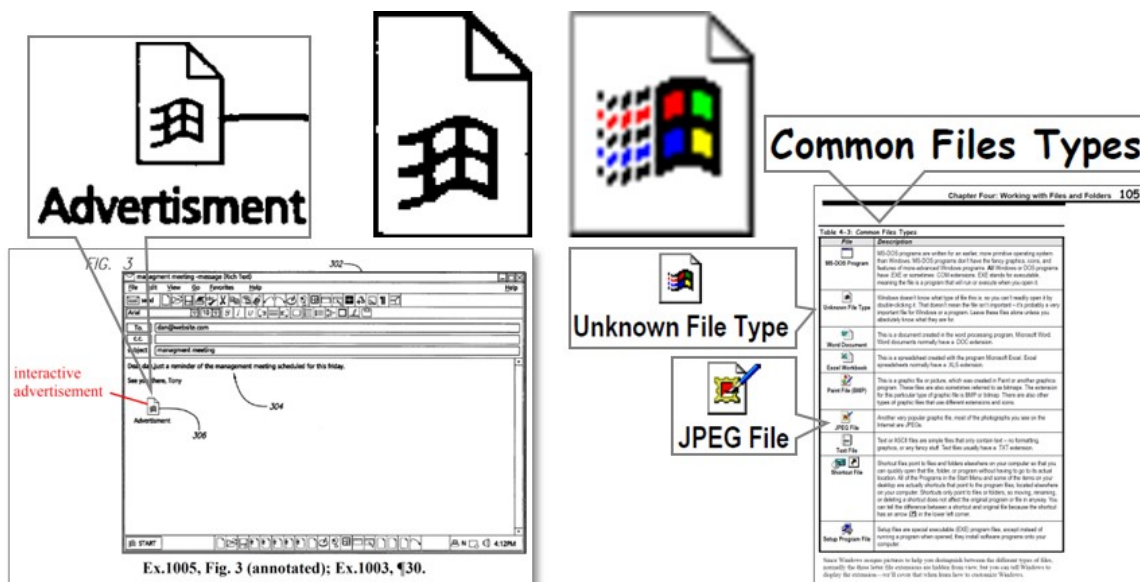
EX1005, FIG. 3; text saved by Microsoft Outlook to .rtf or .eml format; EX2019 (explaining some differences between HTML, RTF, and plain text format).

86. The RTF email of Figure 3 does not have any HTML tags, let alone the <a href> tag that Petitioner proposes inserting during the email formatting step to generate an interactive ad.

87. Thus, Figure 3, which is Rothschild's only visual example of an email, discloses sending an email with an interactive ad by attaching a file to an RTF email. Rothschild has no need for Petitioner's hypothetical HTML tags.

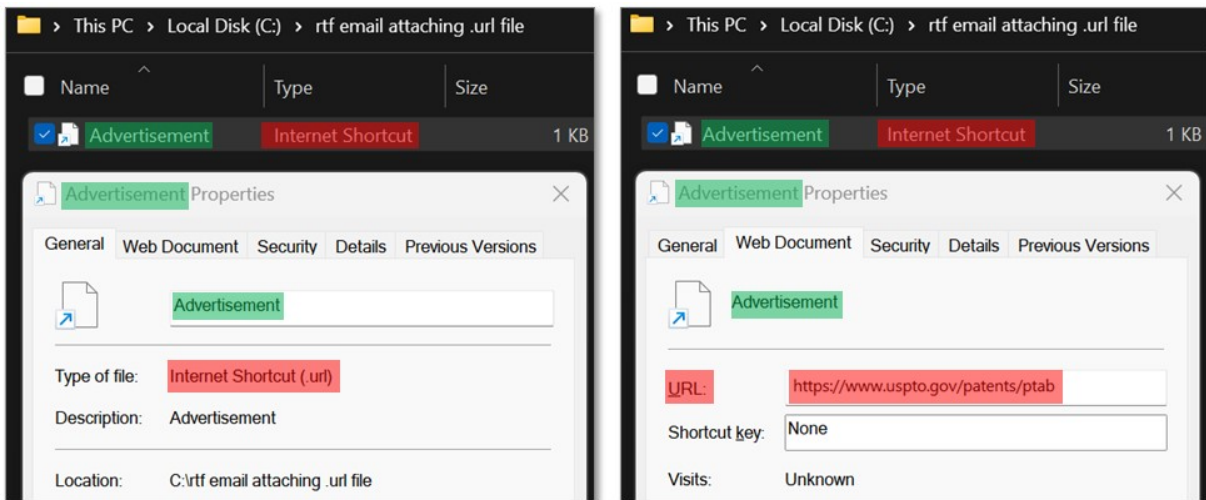
c. Rothschild attaches interactive ads as separate pre-existing files, not as part of HTML tags.

88. In Figure 3, the interactive ad is an attached file. Specifically, it is a file with a Microsoft Windows icon that denotes that the file is of an unknown file type. Petitioner proposes using HTML tags to assign a URL to a .jpg. The attachment in Figure 3 is not shown as a .jpg image file, which has a different Windows icon.



Pet., 21, showing annotated EX1005 FIG. 3; EX2020, 105.

89. The attachment in Figure 3 can be an interactive ad, which means that it has a URL embedded in it. Pet 33 (“... Rothschild describes an *interactive advertisement* that is displayed with a graphic and includes an *embedded URL* ...”). One example of a file with an embedded URL is a “.url” file. EX2021 Here is a recreation of a file that could have been attached to the email shown Rothschild Fig. 3: an internet shortcut file named “Advertisement” with the “.url” portion of the file name hidden, with an embedded URL.



File name File type
“Advertisement” “Internet shortcut (.url)”

Embedded URL

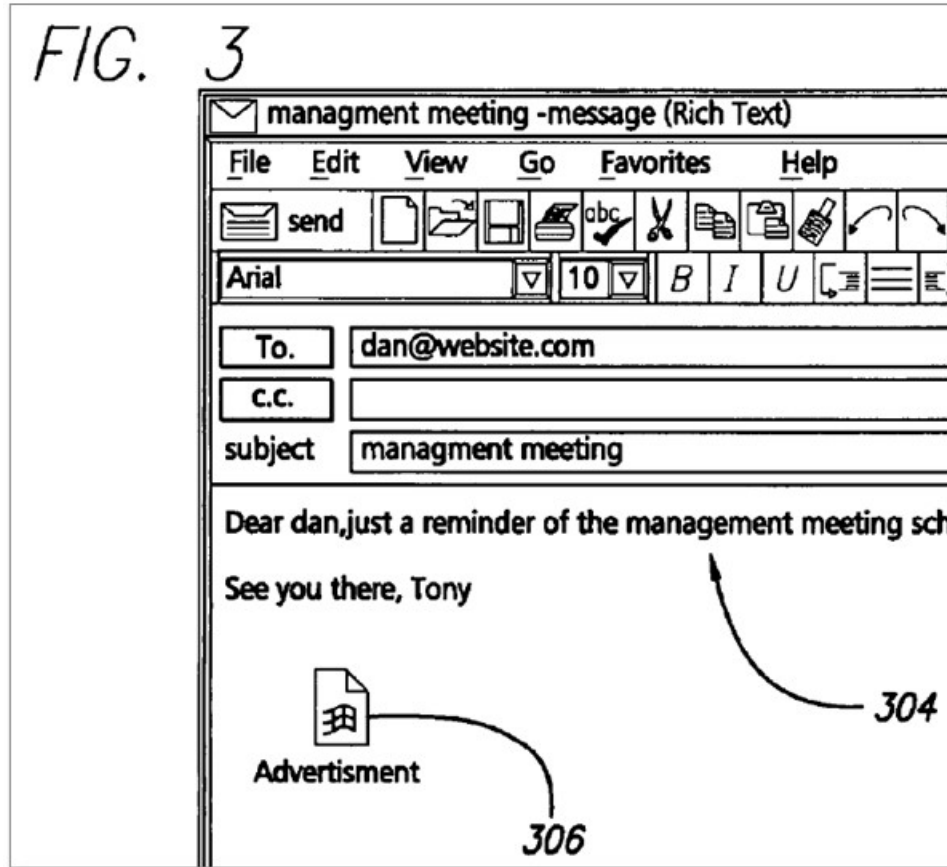
90. When a “.url” file is interacted with (e.g., double clicked), it causes the browser on the machine to load the resource identified by the embedded URL. For example, suppose this is the content of a “.url” file:

```
[InternetShortcut]
URL=https://www.example.com/
```

Double clicking on the “.url” file containing the above link would direct the browser running on the machine to make an HTTP request to a resource at:

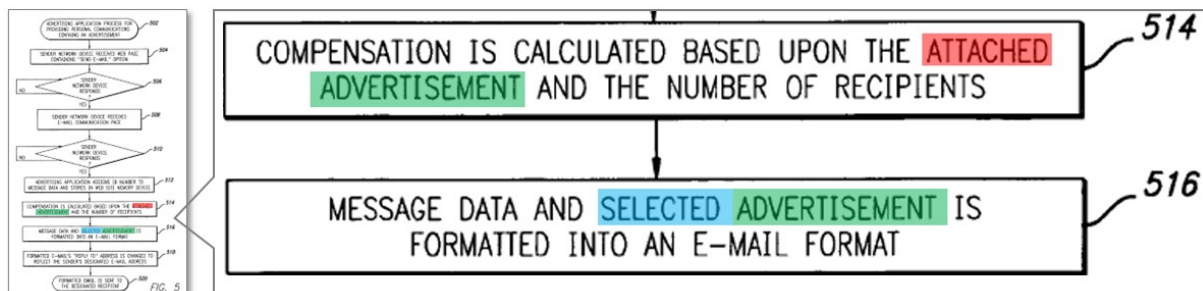
<https://www.example.com/>. Rothschild explains that this resource is a control servlet. *See* EX1005, 12:55-13:20, FIG. 7. When the request data contained in the URL is directed to the control servlet of Rothschild, the control servlet queries the database, and obtains a populated Java Bean. EX1005, 12:55-13:20, FIG. 7. Java Bean is a Java technology that is often used for holding the results of a query (*i.e.*, data) returned from a database. In the case of Rothschild, the Java Bean would be holding data associated with the advertisement. The control servlet then uses the populated Java Bean to produce a Page Bean. EX1005, 12:55-13:20, FIG. 7. In Rothschild, a Page Bean holds the content of advertisement that is eventually shown to the user. Specifically, control servlet of Rothschild sends the Page Bean to a JSP, which is eventually sent to the recipient network device. EX1005, 12:55-13:20, FIG. 7. JSP stands for Java Server Pages and it is a Java technology that Rothschild contemplated to use for displaying the ad on the recipient device.

91. Rothschild repeatedly shows and states that selected ads are “attached” to messages, *i.e.*, are email attachments—and never shows or describes any other method of including an ad in an email. EX1005, 9:48-50 (“... *attach advertisements* to standard e-mail messages ...”); 3:46-51 (“... *attach* a Nike™ *advertisement* to his e-mail ...”). Figure 3 shows the advertisement is an attached file, as discussed above.



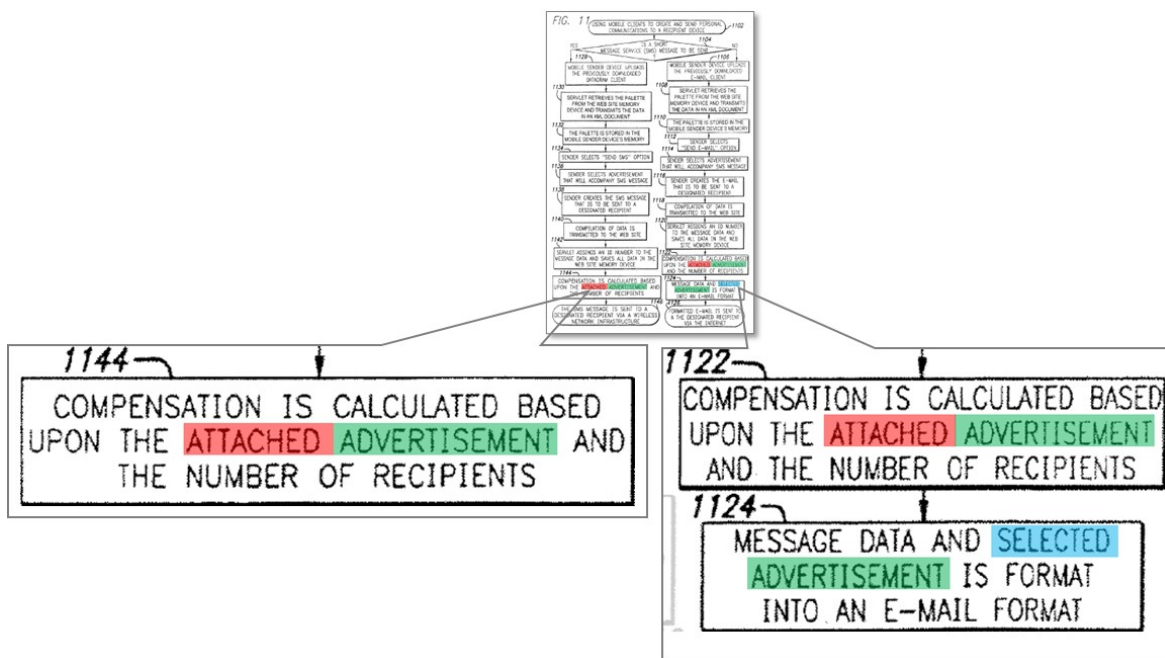
EX1005, FIG. 3.

Rothschild teaches that the “selected” ad is an “attached” ad. In the text accompanying Figures 5 and 11, Rothschild states that every time the figures refer to an “attached” ad, it is a reference to the “selected” ad. Thus, the email formatting step uses message data having an attached ad.



The advertising application then determines the compensation that is due the sender, at *step 514*, based upon the *selected [Figure says 'attached'] advertisement* and the number of recipients that will receive the *selected advertisement*. At *step 516* the message data (which includes the *selected advertisement*) is *formatted* into a standard e-mail format.

EX1005; 11:24-30, FIG. 5 (annotated).



At *step 1144*, the advertising application determines the compensation that is due the sender based upon the *selected [Figure says 'attached'] advertisement* and the number of recipients that received the advertisement.

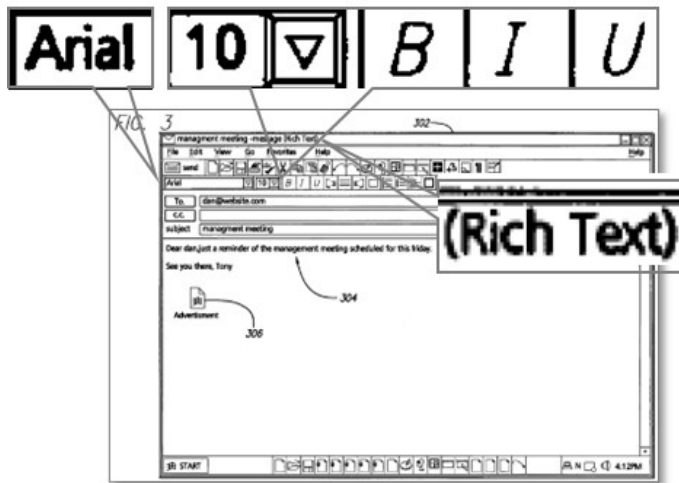
...

At *step 1122*, the advertising application determines the compensation that is due the sender based upon the *selected [Figure says 'attached'] advertisement* and the number of recipients that received the

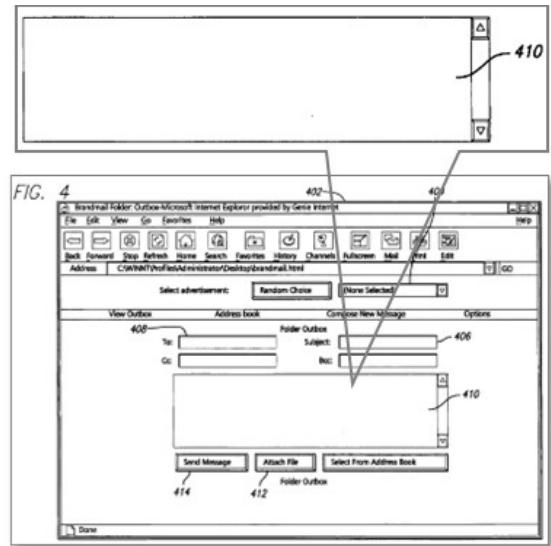
advertisement. The e-mail message, along with the *selected advertisement*, is then *formatted*, at *step 1124*, into an e-mail format.

EX1005, 16:38-43; 17:7-11, FIG. 11 (annotated) (note there is no formatting step for SMS).

92. Formatting message data to create an email can involve converting plain text to RTF or HTML format. Figure 3 shows a Rich Text Format email in an Outlook email client, with a toolbar for text formatting (*e.g.*, font and size). Rothschild discloses creating email using its own web page shown in Figure 4, instead of an email client. EX1005, 9:11-13 (“If the sender indicates a *desire to send an e-mail* to a recipient, he may be provided with an e-mail communication page 402, as shown in *FIG. 4*.”). The user enters the message body in message space 410, but there are no formatting options shown, which suggests that the message body is in plain text format.



Rich Text Format



Plain text, no format options

EX1005, FIGS. 3, 4 (annotated); 9:20-22 (“The sender is further provided a subject space 406 and a *message space* 410, where the subject matter and the contents of the e-mail can be added.”).

93. Figure 4 of Rothschild is disclosing an HTML web page consisting of an HTML form tag. In HTML, a form tag (<FORM> ... </FORM>) is used to define a form, which is used to obtain user input and send that input to the web server. *See* EX2024; also EX2017. An HTML form contains other types of tags for collecting user input. One of these tags is an input tag of type text, which defines a text field that only accepts a single line of text:

```
<FORM>  
  <INPUT type="text">  
</FORM>
```

This is how the “To” and “Cc” fields of Figure 4 in Rothschild are implemented. It

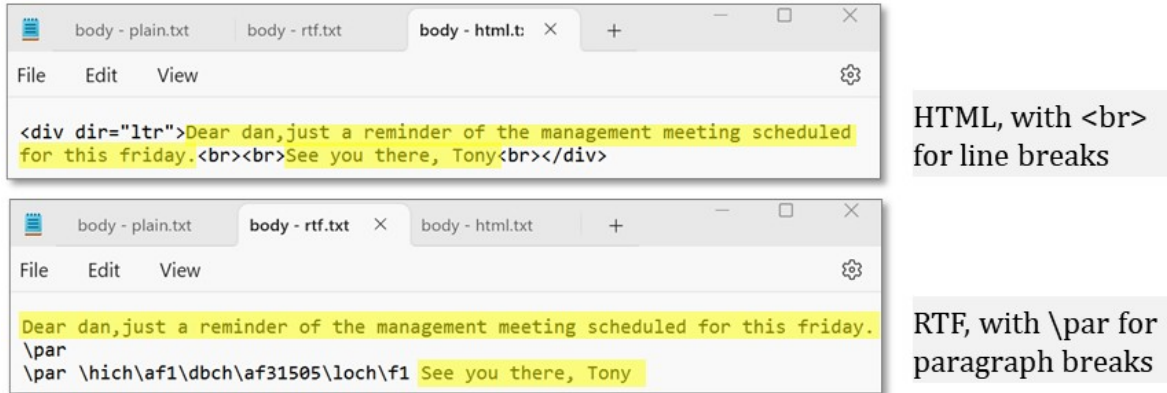
is worth noting that there is no input type of “html” in HTML.

94. Another type of tag used in the construction of an HTML form is a text area, which unlike a text field, accepts multiple lines of text. *See Id.* The following HTML example creates a text area that has a length of 10 rows and width of 80 columns, allowing the user to enter one or more paragraphs of text.

```
<FORM>  
  <TEXTAREA rows="10" cols="80">  
  </TEXTAREA>  
</FORM>
```

95. While the text area is an HTML tag used in the construction of an HTML form, its content is simply text. There is no text area of type “html” in HTML. When the user submits the form, the server receives the content of text area in the form of text, not as HTML. In Figure 4 of Rothschild, when the user clicks on “Send Message” button, the text entered by the user into the text area containing the body of email is sent to the server in the form of text, not as HTML.

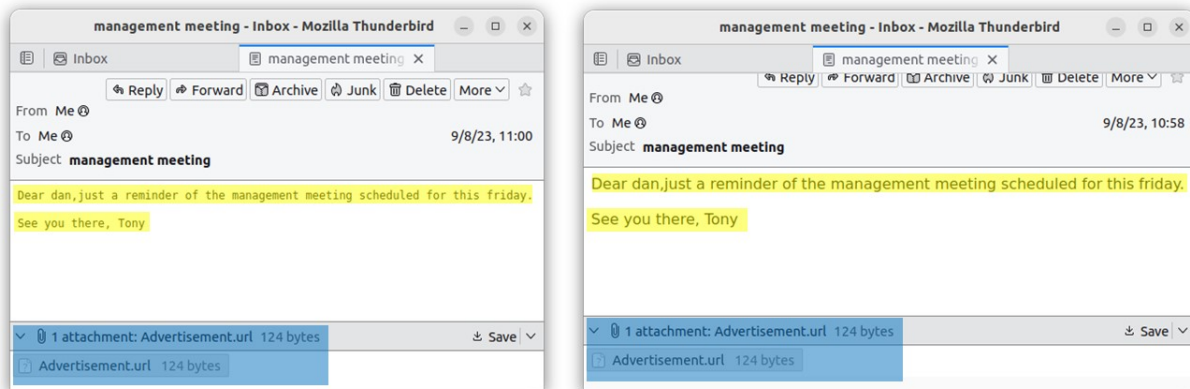
96. Thus, Rothschild’s e-mail formatting step could refer to formatting plain text to convert it to RTF or HTML text, which involves editing the text to handle paragraph breaks, for example. See the real-world example below, where RTF adds “\par” to paragraph breaks and HTML replaces paragraph breaks with “
”.



97. Petitioner places great emphasis on Rothschild’s statement that the formatting step refers to both the message and the selected interactive ad. Pet., 23 (“the message data (which includes the selected advertisement) is formatted into a standard e-mail format.”, citing EX1005, 11:28-30). Formatting the email does not format the selected ad. There is no “email format” for an attachment. Instead, the email simply attaches whatever existing file is to be attached. Thus, formatting the message data does not disclose generating an interactive ad. The reason message data including a selected ad must be formatted for email is not to edit the attached file, but rather to determine how the email will include attachments. In RTF format, the attachment can be in-line (as Rothschild shows in Figure 3, discussed above). Other email formats attach files, but not in-line. Instead, the email format gives the attachment its own part of an email, separate from the part(s) of the email with the text of the message body. Regardless of whether the attachment is attached in-line or not, the attachment itself is not touched by formatting the e-mail; instead, the attachment is a file that already exists, and that

existing file gets encoded in the message. Thus, even if the e-mail were converted to HTML format, Petitioner’s proposed HTML tags would not edit an attached ad; instead, the attached interactive ad is a pre—existing file that is not generated during the e-mail formatting step. The following real world example demonstrates these facts.

98. Attaching a .url file is one way to attach an interactive ad to an email, without using HTML tags to insert the ad. Rothschild’s Figure 3 suggests doing that (see above). Shown below are recreations of the e-mail of Figure 3, in plain text and HTML formats, with an attached “Advertisement.url” file that have been sent (but not to Figure 3’s fictional address dan@website.com).



99. Below is the content of the emails, in their entirety, after they have been sent, saved as .eml files, and opened with a text editor.



Plain text formatted email



HTML formatted email

In both plain text and HTML formats, the email has separate sections for different types of content. They both include a first section for the message body in plain text format. The HTML email (only) includes a second section for the same body text, but in HTML format. In both messages, the last section is the attached file “Advertisement.url” encoded in base64 (not HTML). The attachment is not included using HTML tags.

100. A common standard used for structuring emails is Multipurpose Internet Mail Extension (MIME). Practically all email clients follow the MIME standard in creating email messages. A MIME message can be a multipart message, which can be used to combine several body parts, possible of differing type of data, into a single message. *See* EX2013. Each part of a message can be encoded differently, and its encoding is defined using a MIME type. EX2013. A MIME type has two parts: a type and a subtype separated by a slash. For example, “text/plain” indicates plain text, “text/html” indicates HTML, and

“application/octet-stream” indicates a binary file. EX2013. Using these encodings, a MIME distinguishes between the content of an email and its attachments. An attachment is often encoded in base64, which allows for a binary file (*e.g.*, image or executable) to be represented in terms of text. *See* EX2014. Thus, to attach a file to an HTML email does not involve the use of <a href> tag and would not work as described by the Petitioner and Dr. Houh.

101. Petitioner’s proposed HTML tags would not create an attachment, which is the only method that Rothschild discloses for including an ad in an e-mail (*see, e.g.*, Rothschild’s Figures 3, 5, 11). At his deposition, Dr. Houh supposed that HTML tags could be added to the message space 410. EX2011, 179:4-180:12. But message space 410 accepts only plain text, not text in HTML format, and Rothschild does not state that it is in HTML format.

102. Petitioner proposes that HTML tags could generate an interactive ad during Rothschild’s e-mail formatting step, but as the HTML encoded email example discussed above demonstrates, Petitioner is referring to editing, not formatting, the message with HTML tags. Pet., 42, 46. Rothschild never states that formatting generates an interactive ad, or edits the substance of the message, and Petitioner does not assert otherwise. Pet., 42, 46.

4. The action to be performed (URL) is already embedded in the ad—not determined—when the user selects it (limitations 1.2, 10.5).

103. Claim 1 requires “in response to detection of the trigger, determine an action to be performed upon activation of the hot link.” Claim 10 has the same requirement, but recites “a” rather than “the” trigger. EX1001, claims 1, 10.

Petitioner asserts that receiving the user’s selection of an ad from pull down menu 404 qualifies as both detection (limitation 1.2) and identification (limitation 1.1) of the trigger. EX1001, 84:10-85:20 (“In *1.1* ... *identifying* a trigger ... when the server ... receives the advertisement data of the user’s selection. And in *1.2* ... detecting a trigger ... it’s the *same reception* that I’m talking about, ...”), 82:19-83:8; Pet., 26-30.

104. Petitioner asserts that in response to detecting a trigger (the trigger being: which ad the sender selected from pull down menu 404), Rothschild determines the URL (“action to be performed upon activation of a hot link”) that is embedded in the user-selected interactive ad. Pet., 32 (“... embedded URL (which defines ‘the determined action’” ...); Pet., 29-30 (pull down menu 404, determine URL). EX2014, 62:19-21 (“So the *interactive advertisement* includes an *embedded URL*, and it’s the *URL* which defines the *determined action*.”). Petitioner asserts that determining the URL occurs when the selected ad is inserted into the message. Pet., 29. Dr. Houh’s opinion is based on a misunderstanding that Rothschild sends

the selected ad back to the sender for insertion into message before the user presses the “send” button. EX2011, 67:20-68:16, 179:4-180:12.

a. The interactive ad already exists with an embedded URL before the user selects it.

105. Petitioner proposes that the process of inserting an interactive ad into a message involves a server creating the interactive ad by identifying the relevant URL and embedding that URL into the ad, perhaps by using HTML tags. Pet., 32-34. Rothschild does not disclose that, and Petitioner does not assert otherwise. Pet., 32-34.

106. Before the user can select any interactive ad from the pull down menu 404, the interactive ad already exists and already has a URL embedded in it. Inserting the ad into a message does not involve identifying a URL or embedding any URL into an ad. Even if the interactive ad has HTML tags, any such tags already exist in the interactive ad before the user selects it.

107. The ad palette already contains the fully-formed interactive ads that messages send, and those interactive ads already have a URL embedded in them, when they are stored in the ad palette.

108. Rothschild does not disclose identifying the URL of ads that are already stored in the ad palette, and there is no need to do so: any interactive ad stored in the ad palette is inserted as-is into a message without any further editing, processing, or assembling. There is no need to identify the ad’s URL, or even

determine whether it has a URL. Whatever ad is already saved in the ad palette is exactly what is sent out.

b. Inserting an ad into a message does not determine the action that will be performed when interacting with the ad.

109. Petitioner’s language is ambiguous, but could be read as asserting that the mere act of inserting an interactive ad qualifies as determining the action, regardless of whether any URL is identified. Pet., 29 (“Rothschild’s server determines an action to be performed by placing the selected interactive advertisement—along with its embedded URL—into the email message.”)

110. Inserting the ad does not determine what action will be taken upon activation of the ad. Instead, the URL is already embedded in the ad. At most, determining what ad to insert relates to determining an action that will be available when interacting with the hot link *message*, because the inserted ad is a first interactive ad rather than a second interactive ad. The claims require “determin[ing] an action to be performed upon activation of the hot link”—not the hot link *message*. The selected interactive ad already has a URL embedded in it, so inserting that ad does not determine what its embedded URL is. Petitioner’s argument requires determining the URL that is embedded within a first interactive ad, not merely picking an interactive ad without determining its embedded URL.

c. The URL and interactive ad are determined before—not in response to—detection of the trigger.

111. By the time the ad is inserted into a message, there is nothing left to determine. The advertiser determines what URL will be embedded into an ad when the advertiser uploads the ad. EX1005, 13:26-49 (“... the advertiser can ... *upload an advertisement* to the Web site 110. ... The *advertiser* should *at this time specify* whether the *advertisement* is *static or interactive*. If it is interactive, the additional communication *data provided upon interaction*, or the *location of such data*, *should be provided ...*”). Thus, the URL is already determined before the message creation process begins. The user determines which ad will be inserted into the message by selecting the ad from the pull down menu 404. EX1005, 9:26-52 (“The pull down menu 404 gives the sender the ability to *choose an advertisement* from a *sender created palette* of advertisements.”). Thus, the ad is also already determined before the user’s selection is output from the pull down menu.

112. Therefore, the URL is determined before—not in response to—selecting the ad from the pull down menu. Petitioner’s argument requires a claim construction that identifying the URL qualifies as “determining” the URL, even though the advertiser already determined URL. The Board need not reach that claim construction argument, however, because the ad insertion process does not identify any URL. Instead, the interactive ad that the user selects already exists with its embedded URL.

D. Independent Claim 18 would not have been obvious in view of Petitioner's grounds.

1. Petitioner's proposed HTML <a href> tag is incompatible with Rothschild's interactive ads.

113. Claim 18 requires “assignment information to assign the hot link to a graphical control element (GCE)”. EX1001, claim 18. Petitioner's sole argument regarding assignment information is that a URL could be assigned to an image using HTML tags. Pet., 43, which refers to its discussion of claim 6, which in turn refers to creating an HTML tags. (“, , and ”). In Petitioner's example, the hot link (interactive ad in Petitioner's arguments) is the three HTML tags taken together (<a> and). EX2011, 35:7-9 (“...the specific *hotlink* would be the *anchor tag* and the specific *href*, ...”); 148:4-6 (“... the whole anchor being an example of interactive advertisement.”).

a. Rothschild does not disclose using HTML, let alone an <a href> tag, in an email.

114. Petitioner cites nothing in Rothschild regarding data in an email that assigns an ad to an icon. Tacitly conceding that there is no such disclosure in Rothschild, Petitioner creates an example of HTML code for purposes of the Petition, citing the HTML specification and its own declarant's testimony, but not Rothschild. *Id.*, 43, citing EX1011 (HTML Specification) and EX1003 (Houh

Declaration). Rothschild does not mention the term “HTML,” let alone “<a href>,” and Petitioner does not assert otherwise.

b. Petitioner’s proposal would create a redundant second URL in an interactive ad that already has an embedded URL and does not have an <a href> tag.

115. The sender’s ad palette stores interactive ads that are already fully-formed with embedded URLs. A mobile device can select one of those interactive ads and attach it to an SMS message, then send that message directly to another device, without any further processing of the ad. The SMS message attachment does not use HTML, so the attachment is not wrapped in an <a href> tag. (“SMS does not support HTML. Do not add links with the HTML format: link text.” *See* EX2025.). Therefore, because the SMS message can attach any of the interactive ads that are stored in the ad palette, and any ad it selects to attach to an SMS message does not have an <a href> tag, none of the interactive ads stored in the ad palette have an <a href> tag. Therefore, Rothschild makes it impossible for an existing interactive ad to be taken from the user’s ad palette and simply be inserted into the body of an HTML email. The ad could be attached to a message, but not inserted into HTML.

116. Accordingly, for Petitioner’s proposed <a href> tag to work with Rothschild, the system would need to take an interactive ad from the ad palette—that is, an ad that already has an embedded URL—and wrap that ad in an <a href>

tag to create a second embedded URL for the interactive ad—even though it already has an embedded URL. Further, that second embedded URL would presumably be identical to the first URL, because the advertiser specifies what information to provide when uploading an interactive ad. Rothschild does not disclose creating a second embedded URL in an interactive ad, nor creating a redundant wrapping around an interactive ad. Further, a POSITA would not have been motivated to create a redundant encoded URL, especially because the interactive ad can already be interacted with to activate a URL—as Figure 3 shows with its example of an RTF message attaching an interactive ad.

c. Attaching ads to messages is the only method Rothschild discloses for including ads, and is incompatible with Petitioner’s <a href> tag.

117. Petitioner cites the advertisement in the email of Figure 3 in its discussion of claim 18 as an example of “a graphic or icon that can be interacted with.” Pet., 61. But Rothschild’s Figure 3 cannot work with Petitioner’s proposed <a href> tag. Figure 3 is an RTF message, not an HTML message, as Figure 3 itself expressly states (“Rich Text” at top of menu bar). Further, the RTF message attaches a file. EX1001, FIG. 3. That file is not wrapped in an <a href> tag, because the email is in RTF format and does not use HTML, and because even in an HTML message, that tag would not create an attachment.

118. Instead of using Petitioner’s proposed HTML tags, a POSITA would simply use attachments, exactly as Rothschild discloses. Rothschild repeatedly teaches attaching interactive ads to messages, and never mentions a different method. Indeed, Figure 4 includes an “Attach File” button 412. Thus, Rothschild’s emails are expected to include attachments—including attachments of “sender-provided” interactive ads. Rothschild discloses sending a “sender-provided” interactive ad, and does not state that a sender-provided ad must be added to the ad palette and included in pull down menu 404.

... the *source* of the *advertisement* (either static or *interactive*) ... can be provided by the sender ... or any other party that has access to the Internet. For example, the *sender*, in an attempt to share some humor, may send a personal communication to a recipient containing an *interactive, sender-provided, advertisement* that advertises an animated cartoon.

EX1005, 8:39-47.

119. A POSITA would have understood that an ad could be attached in several ways, for example, by selecting from the pull down menu 404, or by selecting from the pull down menu 404 and then clicking the “Attach File” button 412, or simply clicking the “Attach File” button 412 to select a file for attachment.

- d. Petitioner’s hypothetical use of HTML code requires a step that Rothschild does not disclose, and that the mobile embodiment precludes: the server sending a selected interactive ad back to the sender device.**

120. Dr. Houh supposed that a user composing an email would select an ad from pull down menu 404, then the selection would be sent to a server, which would fetch the ad and create an <a href> tag, then send that tag back to the sender for it be added into the message space 410 text box in the sender’s email composition window. EX2011, 179:4-180:12 (“So that’s how the actual ... code of the hotlink, in whatever form, including in the HTML form, as exemplified in my Declaration, would end up in that message box 410.”).

121. That is not how Rothschild discloses inserting an interactive ad. Message space 410 only accepts plain text, so Rothschild would not insert HTML tags into that space. Further, Dr. Houh could not find any support at his deposition for the idea that Rothschild returned the selected ad before the user hits the “send” button. EX2011, 67:20-68:16, 179:4-180:12.

122. Dr. Houh also admitted that when the “send” button is pushed, the message already has the actual selected ad. EX2011, 179:4-180:12 (“... server to *retrieve the ad to send back to the client to insert the ad, ... the whole message that is ready to send in ready—to—send format*”). Therefore, any interactive ad would be part of the message—but not in HTML format within message box 410, which only accepts plain text—when the user hits “send.”

123. Dr. Houh's notion (*i.e.*, a server returns an ad to the client after the user selects an ad) does not occur in Rothschild's mobile device embodiment, where the mobile device downloads and stores the entire ad palette, with all of the preexisting interactive ads already saved in the ad palette. The server does not fetch the selected ad and send it back to the mobile device in that embodiment, because the mobile device already has all of the ads. Rothschild does not state that the mobile device embodiment has less functionality or generates a different kind of email than the non-mobile embodiment, so the process for creating email in both embodiments is presumably similar. There is thus no basis to believe that the non-mobile embodiment used HTML differently than the mobile embodiment, especially since Rothschild never mentions HTML in the first place. Therefore, because the mobile embodiment definitely does not use an ad wrapped in an `<a href>` tag (for email or SMS), the pull down menu embodiment presumably does not as well.

- e. **HTML `<a href>` tags must be put into the body of an HTML message, but Rothschild does not disclose composing email in HTML or editing the content of the body after formatting into email format.**

124. Petitioner's `<a href>` tag must be inserted in the body of an email in HTML format, so it would not work if inserted into message space 410; the literal tag would appear as text, just as it does in Houh's declaration, *see* EX1003, ¶59, but would not offer HTML functionality. Although Figure 4 is an HTML web

page, the message space 410 is an input for plain text, not HTML. Figure 4 visually shows that message space 410 is for plain text. It has no text formatting bars, even though formatting bars are normally provided for RTF or HTML email. Compare FIG. 3 (with toolbar to format text, *e.g.*, Arial font, 10 point size, and bold). Rothschild discloses entering data in plain text, and does not disclose using HTML format for email.

125. Further, Rothschild teaches that the message data of an email is not “formatted for email” until after the user hits the “send” button. For that reason as well, the message is apparently in plain text format until it is converted. Even if a plain text message were converted to HTML, Rothschild does not disclose editing the content of the message body after the user presses the “send” button. Yet Petitioner’s proposal would require inserting an <a href> tag into the body of the message.

126. Rothschild does not disclose inserting the selected advertisement, let alone the ad wrapped in an <a href> tag, into the message content data. In fact, Rothschild states that “message data” comprises distinct pieces of data including the subject and “message content data,” and lists “the selected advertisement” separately. EX1005, 4:33-37 (“... the sender will have an opportunity to enter *message data* (*e.g.*, recipient data, subject data, *message content data*, and file attachment data) and select an *advertisement* ...”)

E. Dependent Claims

1. Petitioner fails to show generating a hot link during message creation (limitations 2.2, 6.1, 11.1).

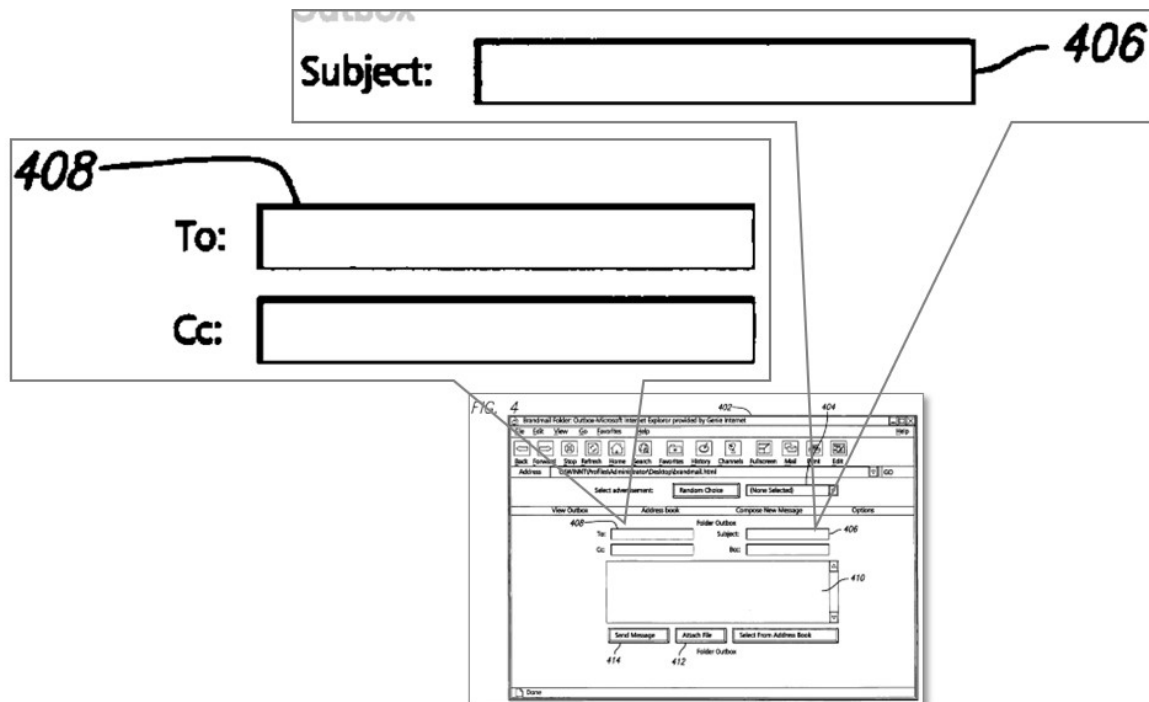
127. Claim 2, like claims 1 and 10, requires “a request to generate a hot link” (not merely a hot link *message*). Claims 6 and 11 require identifying a user interface element “prior to generation of *the* hot link,” meaning the hot link that claim 1 (from which claim 6 depends) or claim 10 (from which claim 11 depends) requires generating during the message creation process. Petitioner’s discussion of the “generate a hot link” limitations 2.2 and 6.1 merely refers back to limitation 1.1, and its discussion of claim 11 merely refers back to limitations 6.1 and 10.2, each of which refer back to limitation 1.1 for the “generate a hot link” requirement. Pet., 37-38, 42, 49.

128. Petitioner has failed to show generating a hot link. When the sender selects from a palette of ads using the pull down menu 404, the user selects pre-existing ads that already include their embedded URLs; doing so does not generate any interactive ads.

129. Further, Petitioner’s sole theory for claims 6 and 11 require inserting HTML tags into the body of the email, which is incompatible with Rothschild’s interactive ads.

2. In Rothschild, the sender, not the server, determines the e-mail address (location) of the devices (limitations 8.1, 16.1).

130. Petitioner asserts that because a sender can enter email addresses into the “to” or “cc” fields of Figure 4, the server determines the email addresses. Pet., 45-46, citing EX1005, FIG. 4; Pet., 55 (merely referring back to claim 8). The “to” and “Cc” fields are simply empty text input boxes that allow the user to “designate” recipients by typing email addresses, just like the user can type in the “Subject” field.



“The e-mail communication page 402 provides a *recipient space* 408 [including the ‘to’ and ‘cc’ fields] where the *sender* can *designate* at least one *recipient* that will receive the e-mail. The sender is further provided a *subject space* 406 and a message space 410, where the *subject matter* and the contents of the e-mail *can be added*.”

EX1005, FIG. 4 (annotated); 9:18-23.

131. The user inputs the email address, however, so the server does not determine any email address, as claims 8 and 16 require.

F. Petitioner fails to provide any citation or logic to show that the cited art discloses the “controlling” limitations (claims 1, 2, 12, 18, 19, 20).

132. Nine limitations in six claims require “controlling” transmission, receipt, selection, or submission. EX1001, 1, 2, 12, 18, 19, and 20. Those same claimed actions (transmit, receive, and select) are in other claim limitations that do not have a requirement to “control” the action. For example, compare claim limitation 1.5 (“*control transmission* of the hot link message”) versus claim limitation 10.3 (“*transmit* a hot link message”), and claim limitation 2.2 (“*control receipt*, from the first user device, of a *request to generate a hot link*”) versus claim limitation 10.2 (“*receive*, from a first user device, a *request to generate a hot link*”). EX1001, claims 1, 2, and 10.

Control	Claim language with control
Transmission	<i>control transmission</i> of the hot link message to the set of user devices. (claim limitation 1.5) <i>control transmission</i> of another hot link message (limitation claim 19.2)

Control	Claim language with control
Receipt	<i>Control receipt</i> , from the first user device, of a request to generate a hot link along with identification information of the set of second user devices to receive the hot link. (claim limitation 2.2) <i>control receipt</i> of a hot link message comprising a hot link and assignment information, (claim limitation 18.1)
Selection	<i>control selection</i> of users associated with the set of second user devices (claim limitations 2.1 & 12.1 (note claim text is omitted from Pet., 54) <i>control selection</i> of a set of other user devices to be provided with a hot link (claim limitation 19.1)
Submission	<i>control submission</i> of the set of other user devices (claim limitation 19.1) <i>control submission</i> of a positive [or negative] opinion (claim limitation 20.1)

EX1001, 1, 2, 12, 18, 19, and 20.

133. Petitioner ignores the claim term “control” and treats “control transmission” as if it means the same thing as “transmit,” without any rationale. Pet., 34-35 (“Thus, because Rothschild’s web server *transmits* ..., Rothschild renders obvious “*control transmission* ...”). The same is true for “control receipt” and all other “control” limitations. Pet., 58 (“By *receiving* the e-mail message, an application on the recipient device ‘*control[s] receipt*’ of the e-mail message”); see also Pet., 35-38, 68-73, 77-78 (no explanation regarding “control”).

134. The term “control” has meaning in computer science. Control is used to denote one or more decisions made by the computer. The software executing on the hardware encodes the decisions. According to the Microsoft Dictionary, control is “management of a computer and its processing capabilities as to maintain order as tasks and activities are carried out.” See EX2020. Disclosures from the ’169 patent are consistent with that understanding of control at the time of invention (“The mass memory stores operating system 320 for controlling the operation of WWW server 300.” See EX1001, 6:66-67; “Basic input/output system (“BIOS”) 318 is also provided for controlling the low-level operation of WWW server 300.” EX1001, 7:4-6; “LED display 450 may be controlled to remain active for specific periods or events. For example, an LED display may stay on while the phone is powered or may light up in various patterns.”; EX1001, 9:33-37).

135. Rothschild's use of the word "control" is also consistent with my opinion of what a POSITA would have understood to be the meaning of this term in the field at the time of invention. For example, Figure 7 of Rothschild describes a "control servlet" containing business logic that takes different actions based on the query results from a database and the type of recipient network device:

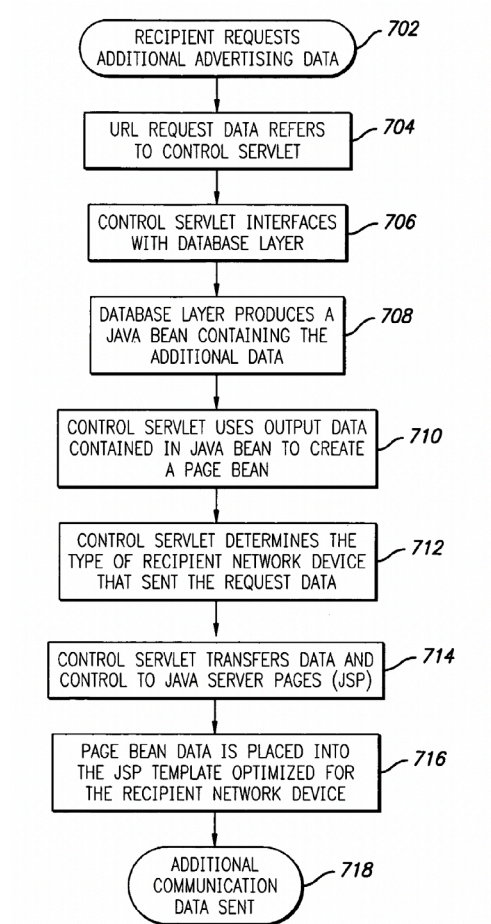


FIG. 7

EX1005, FIG. 7.

136. I understand that each claim term is presumed to have meaning. Thus, controlling transmission (or receipt, selection, or submission) requires more than

simply transmitting. For example, if an application always shows a screen that simply displays “hello, world” and the application has no other functionality, that application does not control what is displayed. Dr. Houh at deposition could not identify anything that such an application “controls.” Instead, he referred to entities other than the application that control something, such as low-level drivers controlling displaying, and the human programmer who wrote the application controlling what the application does. EX2011, 167:11-172:1.

137. Therefore, Petitioner has not demonstrated that the cited art discloses any of the six claims (1, 2, 12, 18, 19, 20) that require “control.”

G. Petitioner has not identified how its proposed combination of Rothschild, Saltanov, and Maes would achieve the sole alleged benefit (claim 20).

138. Petitioner’s arguments regarding claim 20 require combining three references so that (1) a recipient of an email with an interactive ad (Rothschild) (2) forwards that email to other recipients in a second GUI (Saltanov), (3) where that second GUI includes positive and negative opinion graphical control elements to control submission of feedback regarding content (Maes). Petitioner asserts that a POSITA would have been motivated to create that combination so that the interactive ads could receive user feedback, which in turn could allow advertisers and marketers to improve their outreach to customers. Pet., 74-76.

139. Petitioner fails to explain how the jumbled, discrete pieces in its combination would work together to deliver feedback to advertisers—which is Petitioner’s sole alleged motivation to combine. How would the buttons relate to the interactive ad that the original recipient forwards? Petitioner fails to explain that. If a user forwards an email to additional recipients, how does the advertiser receive feedback from those additional recipients, even if they click on buttons? Petitioner fails to explain that as well. Indeed, Dr. Houh formed his opinion without even considering the question of what entities would receive the feedback. He explained that he did not consider the question because the claim does not require it. EX2011, 156:2-22 (“Q. ... what entity or entities would *receive* the *feedback*? ... Q. ... you *didn’t need to consider that* as part of your *opinion*, right? A. ... I don’t see that in the claims.”). It is Petitioner’s motivation to combine—not the claims—that requires considering the question of whether the advertising entities receive any feedback.

140. Dr. Houh could not specify a single real-world example of an email with the claimed feedback that Petitioner alleges would have been obvious to create, and instead pointed to feedback on a web page, and follow-up emails from customer service. EX2011, 154:19-155:12 (“within the additional content received by activating the URL” [*e.g.*, web page]); 157:1-158:20 (“... how did ... your support session go today, can you rate it from 1 to 10”). Those examples are

irrelevant because they are not emails that have been forwarded from a recipient who received a hot link, as the second GUI of claim 19 requires under Petitioner's theory.

IX. ADDITIONAL REMARKS

141. This Declaration reflects my opinions as currently held. However, my analysis may continue such that I may consider additional information that may result in additional observations. In signing this declaration, I recognize that the Declaration will be filed as evidence in a contested case before the Patent Trial and Appeal Board of the United States Patent and Trademark Office. I also recognize that I may be subject to cross-examination in the case and that cross-examination will take place within the United States. If cross-examination is required of me, I will appear for cross-examination within the United States during the time allotted for cross-examination.

142. I hereby declare that all statements made herein of my own knowledge are true, and that all statements made on information and belief are believed to be true; and further that these statements are made with the knowledge that willful false statements and the like are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code.

Executed on September 14, 2023, in Irvine, California.

A handwritten signature in black ink, appearing to read "Sam Malek", written over a horizontal line.

Dr. Sam Malek