

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

AMAZON.COM, INC., AMAZON WEB SERVICES, INC.,
and AMAZON.COM SERVICES LLC,
Petitioner,

v.

DATONICS, LLC,
Patent Owner.

Case IPR2025-00873
Patent 10,984,445

**DECLARATION OF ERIK DE LA IGLESIA IN SUPPORT OF PATENT
OWNER'S RESPONSE TO THE PETITION**

I 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.

Executed on February 13, 2026, at Mountain View, CA.



Erik de la Iglesia

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I, Erik de la Iglesia, hereby declare as follows:

I. Introduction

1. I am over the age of eighteen (18) years and otherwise competent to make this declaration.

2. I have been retained as an expert witness on behalf of Patent Owner for the above-captioned *inter partes* review (“IPR”). I understand that the petition for *inter partes* review involves U.S. Patent No. 10,984,445 (“the ’445 Patent”).

3. I make this declaration based on my personal knowledge, educational background and training, consideration of the materials I discuss herein, and my expert opinions.

4. My work on this matter is being billed at my normal hourly consulting rate of \$750, with reimbursement for actual expenses. My compensation is not related to the outcome of any proceeding involving the ’445 Patent. I have no personal interest in the outcome of the case.

5. In preparing this Declaration, I have reviewed and considered the ’445 Patent, the ’445 Patent’s prosecution history, the Petition and prior art references submitted with the Petition, the declaration submitted by Dr. Houh in this proceeding and its citations and exhibits, the deposition transcript of Dr. Houh in this proceeding, and each document cited in my declaration.

II. Background and Qualifications

6. My qualifications for forming the opinions given in this declaration are summarized here and are addressed more fully in my curriculum vitae, which is submitted as Exhibit 2002.

7. I hold a Bachelor of Science degree in Electrical Engineering from the University of Florida, and a Master of Science degree in Electrical Engineering from Stanford University. While at Stanford, I was an NSF Graduate Research Fellow. My graduate focus included VLSI CMOS architecture, high-speed circuit design, computer networks and protocols, and artificial intelligence. I have worked in several computer and electrical engineering related fields for over 25 years resulting in 68 issued U.S. patents that have been cited over 2850 times in USPTO patent applications. Since 2003, I have served in a number of chief architect and founder roles of companies that have been acquired or gone public. My experiences include the design or implementation of networks and network-based computation and protocol systems similar to the technology of the '445 Patent, including systems for content targeting based on user behavior across devices.

8. Between December 1997 and November 1999, I was a circuit design engineer at Intel Corporation within the Mobile and Handheld Products Group. My responsibilities included working on several aspects of mobile processors and chipsets including clock and power distribution, dynamic clock frequency

selection, and the circuit design, device simulation, and validation of such features. Until March of 2000, I worked on similar functionality within the Microprocessor Products Group for the Itanium 3 and 4 products.

9. My work in power distribution included thermal modeling and predictive control of silicon devices and their packaging such as multi-tiered cooling systems for embedded, mobile, and desktop environments. Such systems included multiple tiers of thermal sensors, active and passive thermal control systems, and the feedback and analytic firmware and software control. My models were part of the development of the Thermal Design Power (TDP) metrics used by OEM and system designers to plan thermal control solutions for consumer and industrial products.

10. Between March 2000 and September 2003, I worked as a logic designer and architect for WebStacks and, through acquisition, Extreme Networks. WebStacks built a fully hardware-based TCP and HTTP processing stack for network processing functions including load balancing, proxy processing, and content rewriting. I was responsible for the architecture and design of the HTTP processing engine including header extraction and processing.

11. Between August 2003 and August 2007, I worked as Founder, Chief Architect and Director of Engineering for Reconnex, later acquired by McAfee. Reconnex built a gigabit line-rate network security analyzer capable of

classification, heuristic analysis, and policy enforcement on arbitrary protocols and content types. The Reconnex product captured and analyzed content transmitted over the internet using HTTP and other protocols, including storage protocols. Design of the Reconnex system was based on a modified and customized version of the Linux kernel which included specifically designed driver source code and interfacing between the application and kernel domains. Reconnex technology was employed in the audit and compliance verticals based on its ability to quickly analyze and classify the content of transmissions and interact with protocols and communications crossing corporate and departmental boundaries.

12. My work at Reconnex included architecting and deploying software to analyze and classify relationships within HTTP transmissions and sessions including cookie tracking, temporal analysis, user identification and attribution and other identity-based analyses.

13. Between August 2007 and September 2008, I founded Strangways, a company focused on addressing messaging security for webmail and internet messaging protocols. Products and technology developed by Strangways were sold to SendMail Inc., Iron Port (Cisco), and other companies. The Strangways product utilized a Squid caching server and ICAP content rewrite server to translate HTTP to SMTP.

14. Between September 2008 and April 2014, I worked as Chief Architect for Gridiron Systems and, through acquisition, Senior Director of Technology for Violin Memory. I held the Senior Director position with Violin Memory both before and after the company's IPO. My responsibilities included architecture and design of flash media controllers, adaptive caching design, and machine learning for application storage behavior analytics.

15. The Gridiron product was a storage accelerator used in many analytic environments such as big data architectures with constant ingest and processing of financial, consumer and IoT data. In my role as Chief Architect, I often worked with customers to implement and accelerate their analytics environments and spoke on related topics at trade shows and industry user groups. During product development and later commercial deployment, I worked with teams at Shopzilla to improve database and storage performance for real-time shopping recommendation and user tracking for online advertising.

16. Additional information regarding my employment history and prior expert testimony is included in Exhibit 2002. As reflected in Exhibit 2002, I have consulted on several matters involving intellectual property disputes including instances of alleged patent infringement requiring analysis of source code, reviewing and analyzing patents, writing expert reports, and testifying in court.

This has included cases involving online and targeted advertising, and I have testified at deposition and at trial in a number of cases.

III. Legal Principles

A. Claim Construction

17. I understand that the first step in performing a validity analysis of the patent claims is to interpret the meaning and scope of the claims by construing the terms and phrases found in those claims. I understand that the appropriate construction of a claim term is its ordinary and accustomed meaning as understood by one of ordinary skill in the art at the time of the invention in the context of the entire patent and the prosecution history.

18. I understand that standard for claim construction in an *inter partes* review is the same standard as is applied in district court proceedings.

19. I understand that a determination of the meaning and scope of the claims is a matter of law. I have been informed that to determine the meaning of the claims, one should consider the intrinsic evidence, which includes the patent's claims, written description, and prosecution history. I am further informed that, other than in cases of "lexicography" (where a patentee provides a definition for a term) or "disclaimer" (where a patentee makes clear, such as explicitly states, that a term excludes a certain scope), a claim term is to be given its plain and ordinary meaning to a POSITA at the time of the invention in view of the intrinsic evidence.

B. Burden of Proof

20. I understand that in an *inter partes* review, the petitioner has the burden of proving unpatentability by a preponderance of the evidence.

C. Anticipation

21. I have been instructed by counsel and understand that a reference is anticipated if a single prior art reference discloses each and every claim element, either explicitly or inherently, as arranged in the same way as in the claim. I understand that where even one claim element is not disclosed in a reference, a contention of anticipation fails.

22. I further understand that when a reference fails to explicitly disclose a claim element, that reference inherently discloses that element only if the reference must *necessarily* include the undisclosed claim element.

D. Obviousness

23. I have been instructed by counsel and understand that a combination of prior art references may render a claim obvious if, at the time of the invention, a person of ordinary skill in the art would have selected and combined those prior-art elements in the normal course of research and development to yield the claimed invention.

24. I understand that in an obviousness analysis, one should consider the *Graham* factors, including: the scope and content of the prior art; the differences

between the claimed inventions and the prior art; and the level of ordinary skill in the art. I further understand the obviousness analysis is to be performed on a claim-by-claim basis. I understand that a person of ordinary skill in the art is a person of ordinary creativity, not an automaton.

25. I have been instructed by counsel and understand that obviousness requires more than a mere showing that the prior art includes separate references covering each separate limitation in a claim under examination. I understand obviousness requires the additional showing that a person of ordinary skill at the time of the invention would have been motivated to combine those references in a manner that would include all limitations of the challenged claim, and, in making that combination, a person of ordinary skill in the art would have had a reasonable expectation of success.

26. I also understand that an obviousness analysis must be conducted with awareness of the distortion caused by hindsight bias and with caution of arguments reliant upon *ex post* reasoning. For instance, I understand that when considering obviousness, I should put myself in the position of a person of ordinary skill in the field at the time of the invention, rather than considering new information that is known today, but was not known before the priority date of the challenged patent.

IV. Person of Ordinary Skill in the Art

27. Dr. Houh alleges that a person of ordinary skill in the art, as of the priority date of the '445 Patent (which I understand to be June 19, 2006), “would have experience in online advertising and computer science.” Ex. 1002, ¶33. His description of the qualifications is generally vague, however, as he does not quantify how much experience in online advertising and computer science is needed. In my opinion, a POSITA would have had a bachelor’s degree in computer science or similar degree (such as electrical or computer engineering) and approximately two years of experience in computer science with at least some experience in online network communication (which could include online advertising more specifically), as well as HTTP protocol analysis and online identity tracking including the use of cookies. More education could substitute for less work experience, or vice versa.

28. I have at least this level of skill in the art, as detailed in my experience summarized above and my *curriculum vitae* (Ex. 2002).

V. Overview of the '445 Patent

29. The challenged claims of the '445 Patent (claims 1-14) are directed to systems and methods for, e.g., causing delivery of electronic advertisements based on profile information received through particular means. The invention, at a high level, allows media properties to “better monetize their low-value ad space by

selling ads based on the [received] profiles,” which allows for them to “mak[e] a payment for the profiles to the profile owners who provided the profiles.” Ex. 1001, 6:63–7:4.

30. Claim 1 is the sole independent claim, and recites:

1. A method of causing delivery of electronic advertisements based on provided profiles comprising:
 - (a) with a computer system automatically storing, in a central database associated with the computer system, profile information associated with a visitor, as a result of electronic receipt from a profile owner computer of indicia of the profile information, which profile information associated with the visitor matches a profile or kind of profiles requested by an entity controlling the computer system, wherein a tag associated with a visitor device serves as a link to the profile information associated with the visitor;
 - (b) wherein the profile owner computer is programmed: (i) to automatically select a media property entity of a plurality of media property entities based on a comparison of (A) profile information about a visitor who electronically accessed electronic apparatus of a profile supplier with (B) a plurality of stored requests from the plurality of media property entities, one of which media property entities is the entity controlling the computer system, each stored request being for requested profiles or kinds of profiles, which

plurality of stored requests includes the profile or kind of profiles requested by the entity controlling the computer system, and (ii) when the media property entity is the entity controlling the computer system, to automatically arrange for electronic storage of a requested profile linked to the tag that is associated with the visitor device, the tag being readable by equipment that is part of the computer system of part (a); and

(c) later, when the visitor device is available to receive an advertisement, with the computer system, (i) using the tag of part (a) that is associated with the visitor device to access the profile information stored in the central database, and (ii) using the profile information linked to the tag of part (a) to automatically cause delivery of an electronic advertisement to the visitor device, wherein the electronic advertisement is dependent on the profile information associated with the visitor.

'445 patent (Ex. 1001) at claim 1.

VI. Claim Construction

31. I am informed that claim construction is an exercise of interpreting disputed terms, to the extent needed to resolve any controversy between the parties. With this principle in mind, I do not believe any claim terms need construction, and I have applied the plain and ordinary meaning of claim terms consistent with the legal principles discussed above.

VII. Response to Dr. Houh’s discussion of his summary of the alleged prior art

A. Response to Dr. Houh’s assertions regarding technological background

32. Dr. Houh provides numerous allegations with regards to technological background, most of which are not particularly relevant to his opinions with regard to his specific combinations of references. However, he provides one statement that I understand the Petition uses to argue that “Targeted Advertising is Conventional,” which I briefly respond to herein. *See* Pet. 1.

33. Dr. Houh implies that targeted advertising existed in the “pre-Internet era,” both in the context of “advertisements in printed publications” which “would be targeted to expected readers of the publications,” as well as in the context of “broadcast television advertisers [who] generally targeted their advertisements ‘to programs appropriate for the desired customer base.’” Ex. 1002, ¶65.

34. However, this is not “targeted advertising” under Dr. Houh’s own understanding of that term, because Dr. Houh acknowledges that “[t]argeted advertising is performed by matching targeting criteria for an ad with *information about a visitor* (e.g., a website visitor) to whom the ad will be shown.” *Id.* ¶68. Dr. Houh provides no evidence that in the pre-Internet era, broadcast advertisers or advertisers in printed publications engaged in the process of “matching targeting criteria for an ad” with “information about a visitor.” Rather, my understanding is

that such advertisers would select the advertisements for display in the broadcasts or printed publications based according to the expected viewership, but there was no matching of targeting criteria for particular advertisements. Rather, advertisers simply made informed decisions about where to place their ads based on their estimates of the interests of viewers or readers of particular content, such that no matching of targeting criteria based on information about a viewer was performed.

35. Certainly, the Petition’s allegation that “Targeted Advertising is Conventional” is inconsistent with the Petition’s allegation that “Targeted Advertising uses Profiles” (*see* Pet. 1) because magazine and broadcast ads in the pre-Internet era did not make use of user profiles, as shown by the Petition and Dr. Houh’s failure to provide evidence of such user profiles being used in the broadcast or publication advertisement contexts.

B. Overview of Gilmour, Merriman, and Fraunhofer

1. Gilmour (Ex. 1012)

36. Gilmour generally relates to “facilitating user-authorized disclosure of profile information to a requesting entity.” Ex. 1012, Abstract. An architectural overview of Gilmour’s system is reproduced below (with Dr. Houh’s annotations).

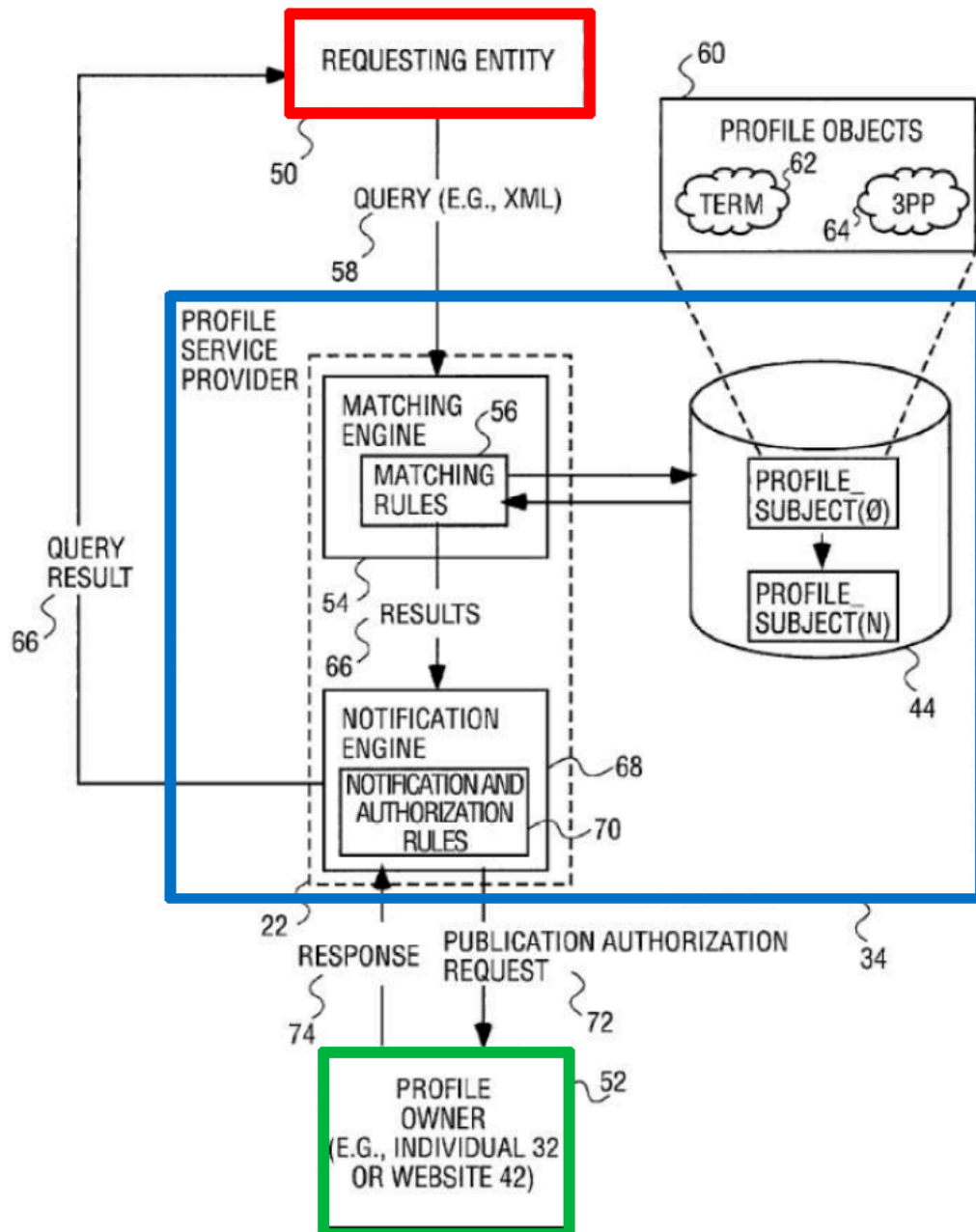


FIG. 3

Ex. 1002, ¶85 (annotated version of Ex. 1012, FIG. 3). Gilmour's teachings are heavily focused on profile owners / users being able to authorize disclosure of their

information in response to requests from requesting entities, as shown throughout Gilmour. This is made particularly clear in the abstract, which focuses on “user-authorized disclosure” and “notification and authorization rules” which “may specify appropriate responses on a profile by profile basis” such that profile subjects are able to “exercise a certain degree of control over the publication of information from an external profile.” Ex. 1002, Abstract.

37. An example of the operation of Gilmour’s system is presented at FIGS. 12 and associated text. The requesting entity pays (either the profile service provider or another originating entity such as a website) for the profile information received, as Gilmour does not disclose any incentive for the profile service provider to operate other than to profit from the various payments made.

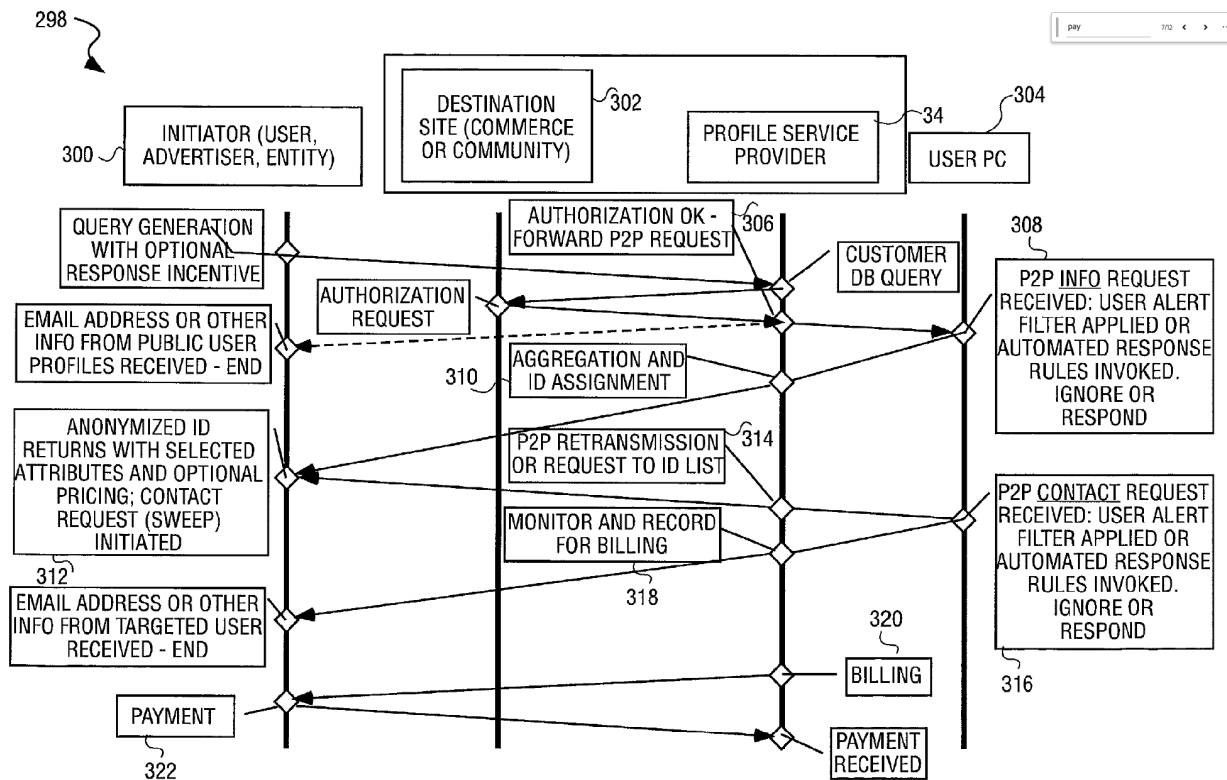


FIG. 12

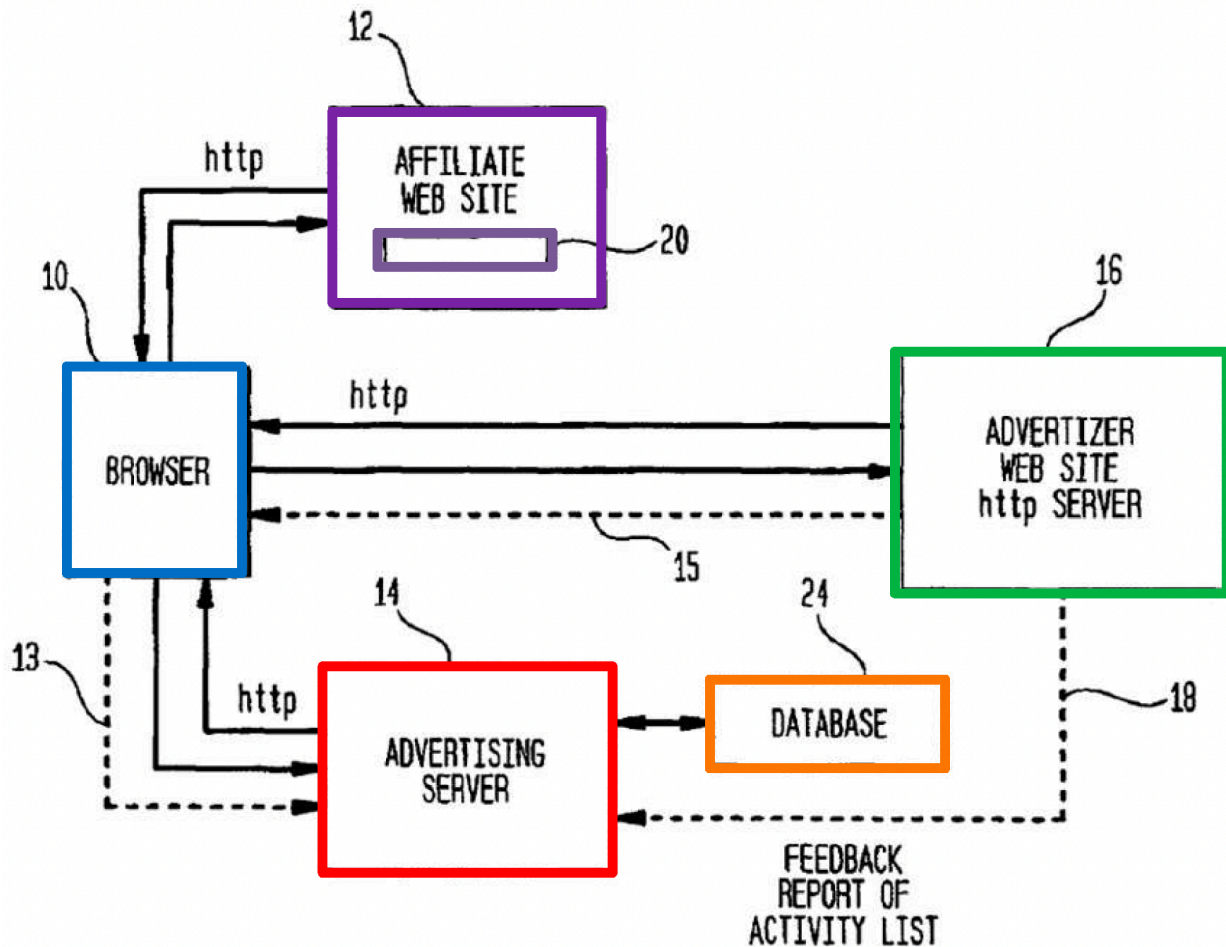
2. Merriman (Ex. 1013)

38. Merriman describes Boomerang, a publicly available prior art system that was developed and made available by DoubleClick, Inc. Ex. 1002 at ¶54 (“Merriman describes DoubleClick’s ‘Boomerang’ product”); *see also* Ex. 2004 (Amazon Trial Transcript) at 832:21–833:1 (Kevin O’Connor, the Founder and CEO of DoubleClick, testifying that Merriman “is the Boomerang patent”); *id.* at 833:19–22 (counsel for Amazon summarizing Mr. O’Connor’s testimony that “this patent is for the Boomerang feature”).

39. As Dr. Houh correctly recognizes, Merriman is specifically directed “to a type of targeted advertising it calls ‘re-targeting’ in which ‘a new follow-up (retargeted) advertisement from a specific advertiser who targeted that viewer previously, is selected for that viewer based on the viewer’s own past behavior at that specific advertiser’s web site.’” Ex. 1002, ¶89; *see also* Ex. 2006 at 2 (“Boomerang ‘brings your customers back,’ by allowing you to re-target people who have previously visited your site. Your message can be delivered to these customers and interested prospects after they leave your site and when they appear on Web sites in the DoubleClick Network.”).

40. Dr. Houh notes that “Merriman illustrates the various entities involved in its targeted advertising system in Figure 1.” Ex. 1002, ¶90. I have reproduced Dr. Houh’s annotation of Merriman’s Figure 1 below.

FIG. 1



Ex. 1002, ¶90. As shown in the figure above and the associated text of Merriman, the advertiser (“advertiser” in Figure 1) of Merriman transmits activity list information to Merriman’s advertising server for use in retargeting ads to a user who previously visited the advertiser’s web site, when that user is later found on a different (“affiliate”) web site. A POSITA would have understood an “affiliate web site” to be a reference, for example, to a web site in the “DoubleClick Network,” which allows sites to “benefit” from “advertisers purchasing your inventory.” *See*

Ex. 2007; *see also* Ex. 2006 at 1 (“With over 750 sites in the [DoubleClick] Network (including Alta Vista, Dilbert, and Travelweb), we provide advertisers with a wide selection of ad-vehicles and provide our affiliate sites with revenue and the reassurance that they are in good company.”).

41. Merriman teaches several different ways (which Merriman calls “alternative mechanisms”) for the advertiser website to implement the “feedback path 18.” Ex. 1013 at 4:44–5:8. This discussion focuses primarily on the “spotlight tags” embodiment of Merriman (Ex. 1013 at 4:51–5:3), because that is what Dr. Houh focuses on in his proposed combination of Merriman with Gilmour and Fraunhofer. Merriman teaches that “[e]ach of the advertiser web pages include a corresponding spotlight tag.” Ex. 1013, 5:33–51.

42. A POSITA would have understood that in the context of DoubleClick, there was only one way for website owners to “monetize their profile data”—specifically, using “Boomerang technology.” Ex. 2004 at 837:20–838:12]. But a POSITA would have understood that when a website owner (such as Nike) used Boomerang to “monetize” its profile data, the website owner was not monetizing the data in the sense of selling the data. Instead, the website owner would attempt to increase revenue by having Boomerang place the advertiser’s own advertisements on DoubleClick network sites (i.e., “affiliate web sites”) using that website owner’s own profile information. *See* Ex. 2004 at 827:1–22 (describing an

example of how a user would visit nike.com, forget that they added an item to the shopping cart on the website, and “then when the user went to the DoubleClick network site, one of our many, many sites, we would see that user and be able to deliver that ad, a Nike ad, to that user and hopefully bring them back”). The advertiser web site does not profit by selling the profile information to DoubleClick, instead, they at most profit when the user returns to the advertiser website, for example, to complete a purchase. A POSITA would have understood that the advertiser *paid* for this privilege of Boomerang using the advertiser’s profile information, and that as such Boomerang would not have paid the advertiser for that profile information. A POSITA would have had this understanding since at least the Merriman patent’s priority date, and Kevin O’Connor was explicit that this is how DoubleClick worked when he testified at the Amazon trial. Ex. 2004 at 847:22–13 (“Q... And when that ad was shown, did Nike receive money from DoubleClick or pay money to DoubleClick? A. They paid money.”).

43. I was aware of DoubleClick and Boomerang at least as of July 27, 1999 (the date that Dr. Houh relies on as Merriman’s priority date – *see* Ex. 1002, ¶87), and the testimony of Kevin O’Connor regarding DoubleClick’s operation is consistent with my understanding, as well consistent with what a POSITA would have understood regarding both DoubleClick’s Boomerang product and

Merriman’s disclosure. Additional information regarding DoubleClick’s operation is reflected at Ex. 2008 (*available at* https://www.ftc.gov/sites/default/files/documents/public_events/online-profiling-public-workshop/online.pdf) and Ex. 2009 (Defendant’s Exhibit 614 at the *AlmondNet v. Amazon* trial).¹

3. Frauenhofer (Ex. 1014)

44. As Dr. Houh acknowledges, “Frauenhofer discloses ‘a system for gathering, categorizing, and delivering *electronic content* to users in response to user requests.’” Ex. 1002, ¶92 (quoting Ex. 1014, 2:8–10). Dr. Houh correctly states that Frauenhofer’s “system server gathers content, such as web pages, from multiple sources,” and “stores the categorized content in a database.” Ex. 1002, ¶92 (citing Ex. 1014, 2:46–54, 4:44–48).

45. Of particular note, quite unlike Gilmour which *provides* profile information to entities that request the information, Frauenhofer *receives* user profiles from the entities (users) who request that information, and uses that

¹ I understand that Ex. 2009 was a document produced by Amazon in the *AlmondNet v. Amazon* litigation in response to a subpoena to Google (who ultimately acquired DoubleClick), and Amazon reserved the right to introduce it to the jury at trial. While the webpage reflected in Ex. 2009 was not captured by the Internet Archive, it appears to be a website that was publicly available. But even setting aside the public availability of the document, it accurately reflects my understanding of what a POSITA would have known about DoubleClick.

received information to send matching content to the requesting users. *See* Ex. 1014, 4:44–52; Ex. 1002 ¶93 (“The system matches the users’ interests (found in the users’ profiles) to the channels assigned to the content and sends content in those matching channels to the users.”); Ex. 1002, ¶93 n.6 (quoting Ex. 1014 at 5:40–43 to support the assertion that “Frau[e]nhofer refers to a set of these [user] queries as ‘user profiles’”).

VIII. Analysis of Dr. Houh’s Ground 1.

A. Dr. Houh identifies no reason for Merriman’s ad server to obtain its profile information from Gilmour’s profile service provider instead of the advertiser website directly.

46. Dr. Houh proposes that in his combination, “Merriman’s ad server” would “act[] as a requesting entity” and issue requests to Gilmour’s profile service provider. Ex. 1002, ¶148 (“Gilmour combined with Merriman thus discloses that the claimed profile owner computer (Gilmour’s profile service provider) performs a comparison of profile information about a visitor who electronically accessed an electronic apparatus of a profile supplier (Gilmour’s website) with a request from a media property entity (Merriman’s ad server acting as a requesting entity).”).

47. Dr. Houh presents no evidence that a POSITA would have found it obvious for Merriman’s advertising server (which a POSITA would have understood as relating to the Boomerang product) as having any need to issue requests to a profile service provider, which a POSITA would understand would

involve payment for the profile information. A POSITA would have understood that profile suppliers (i.e., advertiser websites in the context of Merriman) actually paid **DoubleClick** for Boomerang to use their profile information to target advertisements. And Merriman itself is consistent with this understanding, as it (unlike Gilmour) does not disclose any payment for the profile information; a POSITA would understand that because the advertiser in Merriman is paying for advertisements, there would be no payment from Merriman's advertising server to the advertiser for the user of its profile information.² In light of the fact that Boomerang was able to receive money to take and use this profile information, a POSITA would not have found a reason for Merriman's advertising server (i.e., the Boomerang ad server) to be the requesting entity in Gilmour's system.

48. Nothing in Dr. Houh's analysis even addresses this issue. For example, I did not see any analysis of why Merriman's advertising server would choose to coordinate with Gilmour's profile service provider computer system for profile information. And Dr. Houh did not respond affirmatively when asked if he considered whether he "evaluate[d] whether Merriman's advertising server pays

² Although Merriman is directed specifically to the "Boomerang" product, a POSITA would also have understood that DoubleClick as a company did not rely on payment for profile information, because DoubleClick had access to a vast array of profile information through websites participating in the DoubleClick Network.

Merriman’s advertiser for the profile information provided by the advertiser” when he was forming his opinions. Ex. 2003 at 21:10–22:2.

49. Whether it might be obvious for *other* advertising servers to be requesting entities in Gilmour’s system is something that Dr. Houh does not address. He states that “a plurality of advertising servers *like those taught in Merriman* act as requesting entities and submit queries to Gilmour’s profile service provider” in his proposed combination. Ex. 1002, ¶54. Dr. Houh is clear that in his combination, “Merriman’s ad server act[s] as a requesting entity” and Merriman’s advertising server uses the profile information linked to the tag to automatically cause delivery of an electronic advertisement to the visitor device.” Ex. 1002, ¶¶ 148, 178. In my opinion, this would not have been obvious, because as noted above, Merriman’s advertising server has access to profile information (both in the context of Merriman’s disclosure and in the context of how Boomerang actually operated), such that there is no identified reason for Merriman’s advertising server to coordinate with Gilmour’s profile service provider when Merriman’s ad server *already* has access to profile information from advertisers who wish to advertise with that ad server by virtue of the very spotlight tags that Dr. Houh relies on in his combination. Nor is there any identified reason or Gilmour’s profile service provider to give away profile information for free.

50. In my opinion, this is not a simple combination of prior art elements according to known methods. This would fundamentally change the way that Merriman's advertising server operates by introducing an unnecessary middleman (Gilmour's profile service provider) between Merriman's ad server and the advertiser web site that would only serve to add inefficiency and payment requirements. While Dr. Houh alleges that Merriman's ad server could "better target advertisements" (Ex. 1002 ¶146), he does not explain why Merriman's ad server (which is focused on *re*-targeted advertising, not merely targeted advertising) would benefit from the use of Gilmour's profile service provider, because the disclosure of Merriman's invention is about using information *from advertisers* to retarget visitors to those advertisers' own advertisements. For instance, Merriman explicitly differentiates between the broader "Targeted Advertising" (which is discussed in the "Background of the Invention" section) from the narrower "Re-Targeted Advertising" (which is discussed in the "Summary of the Invention" Section"). Ex. 1013, 2:3–4:10. And each of Merriman's descriptions of the invention relate solely to retargeted advertising. This is apparent throughout Merriman's disclosure, and I note that every independent claim of Merriman explicitly recites "a re-retargeted advertisement" or "re-targeted advertisements."

B. Limitation [1.b(ii)] is not obvious under Dr. Houh's combination

51. Even if one were to combine Gilmour with Merriman such that Merriman's advertising server would be the requesting entity in the context of Gilmour, that would still not satisfy limitation [1.b(ii)] because Dr. Houh has not shown *how* a POSITA would have implemented the combined system in a way that would satisfy this limitation.

52. Dr. Houh specifically alleges that in order to satisfy this limitation, "Gilmour's profile service provider computer redirects a website visitor having a requested profile to the server of the requesting entity computer system using the technique taught in Merriman." Ex. 1002, ¶172. But Dr. Houh ignores the fundamental incompatibility between Gilmour's technique (which involves transferring profile information *conditionally*, upon a profile match) and Merriman's spotlight tag technique (which transfers profile information *unconditionally* after a user visits a web page having a spotlight tag embedded in the page). Neither Dr. Houh, nor Merriman, nor Gilmour, nor any other reference explain how redirection using a spotlight tag could operate such that a user's browser would only be redirected to the relevant location if the user's profile met certain matching criteria, as Dr. Houh's proposed combination would require. In my opinion, a POSITA would not have found such a modification (redirection contingent on matching certain profile attributes) to be obvious as that was not a

known use of a spotlight tag or redirection, and I also do not believe that such a modification (which goes well beyond the usage of a spotlight tag or redirection disclosed in Dr. Houh's cited prior art) would have been within the level of skill in the art proposed by either me or Dr. Houh.

53. Nor does Dr. Houh explain how his proposed combination would operate consistently with the remainder of his proposal, in which *multiple* ad servers like Merriman's ad server are requesting profile information. *See* Ex. 1002, ¶149 (alleging there would be a "plurality of requesting entities" in this combination). Merriman's spotlight tag is only disclosed as redirecting the user's browser to a single location (i.e., Merriman's ad server), and Dr. Houh provides no explanation regarding why (much less evidence that) a POSITA would supposedly have found it obvious to have spotlight tags (or any other redirection) work as applied to multiple requesting ad servers each with their own profile matching criteria. He does not explain how such a modification would even plausibly operate, much less provide any evidence that a POSITA would have recognized this possibility and been motivated to implement it with a reasonable expectation of success. In my opinion, a POSITA would not have found such a modification (redirection to multiple different requesting entities contingent on a number of different profile matching operations) to be obvious as that was not a known use of a spotlight tag or redirection, and I also do not believe that such a modification

(which goes well beyond the usage of a spotlight tag or redirection disclosed in Dr. Houh's cited prior art) would have been within the level of skill in the art proposed by either me or Dr. Houh.

54. I note that in order for Gilmour to redirect a user's browser to the requesting entity, Gilmour's profile service provider would need to be in communication with the user's browser (such as by serving the user's browser a webpage). Dr. Houh does not explain how this would occur consistent with Gilmour's teachings, which teach storing profiles received by profile owners in a database so that the profiles can be compared to user queries. *See* Ex. 1012, [0029] & FIG. 1. For already-obtained profiles, redirection would be impossible, because even if the profile were originally received by Gilmour's profile service provider through a mechanism that involved a user's web browser communicating with Gilmour's profile service provider, Gilmour's profile service provider would not later maintain communication with the user's web browser. Thus, use of redirection would not be a reasonable implementation of Gilmour's return of query results, because it could only *even potentially* apply to incoming profile information discovered *after* the query was received (such that other, more generalized methods of providing profile information in Gilmour such as server-to-server transfer would be seen as clearly preferable). And as explained above, even this limited use case would have its own set of problems, because it would require

conditional redirection (a technique not disclosed in any of the art relied on by Dr. Houh) that would have to occur on very short timeframes during any brief period of time during which a user's browser might be in coordination with Gilmour's profile service provider.

55. As explained elsewhere herein, Frauenhofer is directed to matching of *documents* with requests, not matching *profile information* with requests, which in my opinion is inconsistent with Dr. Houh's proposed combination. (In Frauenhofer, the requests *are* profile information.) Nevertheless, Frauenhofer discloses a categorization process whereby new incoming information (documents, in Frauenhofer's case) is assigned into "channels." *See* Ex. 1014, 4:3–43. It is only *after* Frauenhofer assigns the incoming documents into channels that Frauenhofer uses "[i]nventive components" to "match the channels assigned to each of the incoming documents with the user's interests as found in the user profile." *Id.*, 4:44–51. And only *then*, after both the categorization *and* matching have occurred, is "[e]ach document... made available for access by, or is sent to, the user whose interests it matches." *Id.*, 4:51–52. In other words, incoming documents cannot be *immediately* transmitted to users whose profiles match those documents, because the documents must first be categorized, then "stored in a local database," then matched with user interests before the documents are actually provided to the users. *See Id.*, 4:44–52. A POSITA would not have found Frauenhofer's matching

technique to be applicable to Dr. Houh's proposed combination in the first place because it provides user documents in response to user profiles, rather than profile information in response to user requests. But even if Fraunhofer's matching technique were somehow relevant, the analysis, categorization, storage, and matching required before the documents are ultimately provided in response to requests would make the use of redirection (which again, would require the redirecting entity to be in communication with the user's browser in the context of the Gilmour combination) inconsistent with any application of Fraunhofer's matching techniques in the context of Gilmour.

56. Furthermore, Dr. Houh does not explain how the use of spotlight tags, which transfer information automatically upon on a user visiting a certain web page, would be consistent with Gilmour's heavy focus on authorization rules and notifications. Dr. Houh provides no explanation as to how spotlight tags would be consistent with the "profile subject [being] able to exercise a certain degree of control" over their profile information using "notification and authorization rules" if spotlight tags were to immediately transfer profile information to the requesting entity. *See* Ex. 1012 at Abstract. For example, Dr. Houh does not explain how authorization could be obtained for a particular request if spotlight tags were used to transfer the information automatically, or that even if such an implementation were theoretically possible, how a POSITA would have understood how to

implement such a technique with a reasonable expectation of success or otherwise found it obvious. In my opinion, a POSITA would not have recognized Gilmour's notification and authorization rules (which constitute a a central functionality of Gilmour's system) to be consistent with automatic transfer of information via spotlight tags or other redirection.

57. These problems are all in addition to the fact that Dr. Houh provides no evidence that conditional redirection (e.g., redirection contingent on the results of this extensive matching process) would be obvious, and does not explain the mechanisms by which it would be implemented or how they would be obvious to a POSITA, including any basis for a POSITA having a reasonable expectation of success in implementing such techniques.

58. For the reasons discussed above, I do not believe that Dr. Houh's proposal is a merely "a combination of prior art elements according to known methods to yield predictable results." Ex. 1002, ¶174. Dr. Houh does not even explain the operational details of his combination, and application of spotlight tags in the manner Dr. Houh suggests was neither "known" nor "predictable," as Dr. Houh identifies no evidence that conditional redirection to a plurality of requesting entities was a known method or a well understood technique.

C. Dr. Houh's combination with Frauenhofer is also not obvious.

59. First, Frauenhofer is not prior art. I understand and am informed by counsel that in order to qualify as prior art, a reference must either be (1) from the same field of endeavor as the claimed invention (even if it addresses a different problem); or (2) be reasonably pertinent to the problem faced by the inventor (even if from a different field of endeavor. While I understand that only one of these requirements must be met in order for a reference to qualify as prior art (and thus eligible for use in an obviousness analysis), in my opinion, Frauenhofer does not meet either of these requirements.

60. Here, the field of endeavor of the invention (at a very high level) is profile-based behavioral targeted advertising. *See* Ex. 1001, 1:19–22 (noting that the invention “generally relates to profile-based behavioral targeting advertisement placement services”). Frauenhofer is certainly not from this same field of endeavor even when phrased this broadly. Frauenhofer does not mention advertising or advertisements whatsoever, and is certainly not in the field of providing profile-based behavioral targeted advertising.

61. Furthermore, the problem faced by the inventor was how to efficiently “provide collected profiles to media properties” so that they can “better monetize their low-value ad space.” *See* Ex. 1001, 6:63–7:4. Frauenhofer is not reasonably pertinent to this problem of providing profile information to media properties, as

Frauenhofer does not even arguably disclose any techniques for doing so. Instead, contrary to *providing* profile information, Frauenhofer *receives* user profiles relates and provides related content (i.e., documents such as Internet web pages or articles) to the users having the profile information. Frauenhofer's matching system simply does not provide profile information to any entity, and it works in exactly the opposite way by *receiving* profile information from requesting entities and providing other information in response to that profile information. And matching a user's request (i.e., a "user profile" in the context of Frauenhofer) to categories of documents is also not a technique that is reasonably pertinent to providing profile information to any requesting entity (whether a media property or any other entity). While Frauenhofer *is* reasonably pertinent to delivering content to users in response to user profiles (in effect, a form of content-targeting), it is *not* reasonably pertinent to matching profile information against requests and providing that profile information based on those requests.

62. Second, even regardless of Frauenhofer's lack of prior art status, a POSITA would not have found it obvious to modify Gilmour in the manner Dr. Houh suggests based on Frauenhofer. Dr. Houh alleges that a "POSITA would have looked to Frau[e]nhofer's technique, which performs ongoing or periodic matching using stored queries ([Ex. 1014], 3:12–19), to provide profile information from the profile service provider to the requesting entities of Gilmour." Ex. 1002,

¶156. But “Frauenhofer’s technique” is a *document-matching* technique, which evaluates user profile information and provides relevant document content in response.

63. As noted above, Frauenhofer’s matching technique does not operate to match profile information against requests from requesting entities. Instead, Frauenhofer’s system *receives* profile information in requests from users, and provides content in response. Contrary to Dr. Houh’s assertion, modification of Gilmour in the manner Dr. Houh suggests would not involve “Frauenhofer’s technique” (which involves matching document content against user profiles) at all. *See* Ex. 1002, ¶156 (Dr. Houh alleging that “a POSITA would have looked to Frau[e]nhofer’s technique... to provide profile information from the profile service provider to the requesting entities of Gilmour”). Instead, it would involve a fundamentally different technique—matching user profile information against stored requests for profile information and automatically selecting which requesting entity should *receive* the profile information—which technique is found nowhere in the art Dr. Houh relies upon.

64. For similar reasons, I disagree with Dr. Houh that his proposal constitutes “a combination of prior art elements according to known methods to yield predictable results and use of a known technique to improve a similar system in the same way.” As an initial matter, it is not a combination of prior art elements,

because Fraunhofer does not disclose the technique (matching profile information to requests from requesting entities) that Dr. Houh proposes implementing within Fraunhofer. It also does not use “known methods” or “known techniques”—Dr. Houh has produced no evidence that the actual mechanism he proposes modifying Gilmour with was “known.” Indeed, the proposed combination fundamentally changes the principle of operation of Fraunhofer’s matching technique, which was designed to *receive* user profiles and provide content in response, not to *match* profile information to requests and provide that profile information in response to those requests. Implementing a technique where profile information is provided *in response* to a request (as opposed to as part of a user request) would render Fraunhofer’s matching inoperable for its intended purpose of matching and providing document content in response to profile information.