IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF TEXAS
MARSHALL DIVISION

UNOWEB VIRTUAL, LLC, ***Plaintiff,*** v. **LINKEDIN CORPORATION,** ***Defendant.***	**Civil Action No._____** **JURY TRIAL DEMANDED**

COMPLAINT FOR PATENT INFRINGEMENT

Plaintiff UnoWeb Virtual, LLC ("UnoWeb" or "Plaintiff"), by and through its attorneys, brings this action and makes the following allegations of patent infringement relating to U.S. Patent Nos. 7,730,083 ("the '083 patent"); 8,307,047 ("the '047 patent"); 7,941,345 ("the '345 patent"); 8,037,091 ("the '091 patent"); 8,065,386 ("the '386 patent"); 7,580,858 ("the '858 patent"); 7,987,139 ("the '139 patent"); 8,635,102 ("the '102 patent") 8,402,163 ("the '163 patent"); and 7,971,198 ("the '198 patent") (collectively, the "patents-in-suit" or the "UnoWeb Patents"). Defendant LinkedIn Corporation ("LinkedIn" or "Defendant") infringes the each of the patents-in-suit in violation of the patent laws of the United States of America, 35 U.S.C. § 1 *et seq.*

INTRODUCTION

1. LinkedIn, to expand its product base and profit from the sale of specific e-commerce outsourcing systems, including methods of advertising and content distribution that, prior to the development of the UnoWeb Patents, were unknown, has undertaken to copy the technologies disclosed in the UnoWeb Patents.

2. John Almeida is the inventor of the '083, '047, '345, '091, '386, '858, '139, '102, '163, and '198 patents.[1] Mr. Almeida developed the technologies at issue in this case in response to his exposure to the unique problems that retailers and advertisers faced from the specific architecture of the internet.

3. LinkedIn's co-founder and executive chairperson Reid Hoffman described the architecture of the internet as creating unique and novel problems relating to data aggregation and data management. The UnoWeb patents are directed at solving these problems – problems that are unique and directly related to the structure of the internet.

> Data is one of the things that makes this platform different than other platforms in terms of the fact that it's not code built upon operating systems. But ***data is the platform***. . . . I remember being excited about a 2400-baud modem. And a lot of people in the crowd don't know what I am talking about. And so Web 1.0 was this environment in which we would go out and search for files. . . . It was this ***alternative strange reality***. The reason why Web 3.0 is ***new and unique*** is we now have this massive data that we also generate. [2]

4. UnoWeb is an operating company based in Plano, Texas, which provides platforms for e-commerce, internet advertising, and content management. UnoWeb's products include UnoWeb AdMind, UnoWeb WayVi, and UnoWeb OpenCommerce. UnoWeb's groundbreaking technologies are available at www.unoweb.com and www.unowebdemo.com.

5. Mr. Almeida is the owner of UnoWeb and a resident of Plano, Texas. Mr. Almeida sought patent protection for his inventions. A software developer who moved to the United States from Brazil, Mr. Almeida worked on e-commerce applications in the first wave of

[1] John Almeida is the inventor and owner of 14 issued U.S. patents, 38 published U.S. patent applications, and numerous pending unpublished patent applications before the United States Patent and Trademark Office ("USPTO").

[2] Reid Hoffman, *Data as Web 3.0*, PRESENTATION AT SOUTH BY SOUTHWEST INTERACTIVE 2011 CONFERENCE (March 2011), *summary at*: http://mashable.com/2011/03/30/reid-hoffman-data/ (emphasis added); *see also* Nicholas Leman, *The Network Man: Reid Hoffman's Big Idea*, THE NEW YORKER MAGAZINE (October 12, 2015) ("LinkedIn uses every possible algorithm to suggest people you might want to add to your network, and constantly tweaks its products based on the data it receives about what's popular among its users. LinkedIn also harnesses its members' game-playing competitiveness by, for example, listing the users' number of connections, up to a maximum of five hundred.").

internet businesses in the mid-1990s. Mr. Almeida worked for TradeYard.com[3] and Roidirect.com.[4] These early internet companies exposed Mr. Almeida to problems that were unique to content distribution and advertising on the internet.[5] Problems such as internet server resource allocation, third-party content integration on the World Wide Web and internet advertising click-fraud were unique problems arising from the context of content distribution over a computer network and internet-based advertising.

6. The internet created the wholly new challenge of compensating internet content providers based on contextual advertising from a third party. Mr. Almeida recognized the drawbacks in the state of the art at the time, and through his ingenuity and work, Mr. Almeida developed a variety of systems directed at problems unique to advertising and content distribution on the internet. For example, in 2001, Mr. Almeida filed a patent application that discussed the problems faced by "e-shops" such as Amazon.com, Inc. These problems included the failure of existing prior art e-commerce platforms to enable the distribution of content, advertising, and product listings from third parties. Integration of third party content was lacking in prior art systems. "[A] buyer will have to move from e-shop to e-shop in the e-mall. Time is thus wasted and sales can be lost. Furthermore, the dynamic e-mall concept cannot be created without an elaborate and expensive e-commerce infrastructure."[6]

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[3] *See* Colleen Benson, *People in Business*, SAN FRANCISCO CHRONICLE (May 8, 2000) (Describing TradeYard as an "Internet marketplace for used heavy equipment." Although common today TradeYard was introducing the novel idea of providing an internet distribution venue to regional brick and mortar stores); *see also Micro General Affiliate Escrow.com Announces Integration of Fully Functional Transaction Settlement Engine by B2B Exchanges*, Micro General Corporation Press Release (December 5, 2000).

[4] *See* Merrill Warkentin, BUSINESS TO BUSINESS ELECTRONIC COMMERCE: CHALLENGES AND SOLUTIONS AT 267 (2002) (Describing the ROIDIRECT.com solution as "such companies provide eServices such as payment processing, logistics, and site monitoring. Some vendors that provide such services are bccentral.com (from Microsoft.com), Webvision.com, Roidirect.com, dellworks.com, and Websphere from ibm.com.").

[5] *See e.g.*, U.S. Patent App. 2003/0120560, *Method for Creating and Maintaining WorldWide E-Commerce* (Filed December 20, 2001) ("At present, there are needs for easy and affordable worldwide e-commerce solutions where the seller can have their goods and services sold.").

[6] U.S. Patent App. 10/029,073 (filed December 20, 2001).

7. Websites have adopted Mr. Almeida's inventions without his consent. The patents-in-suit and their underlying patent applications have been cited by over 200 issued United States patents and published patent applications.[7]

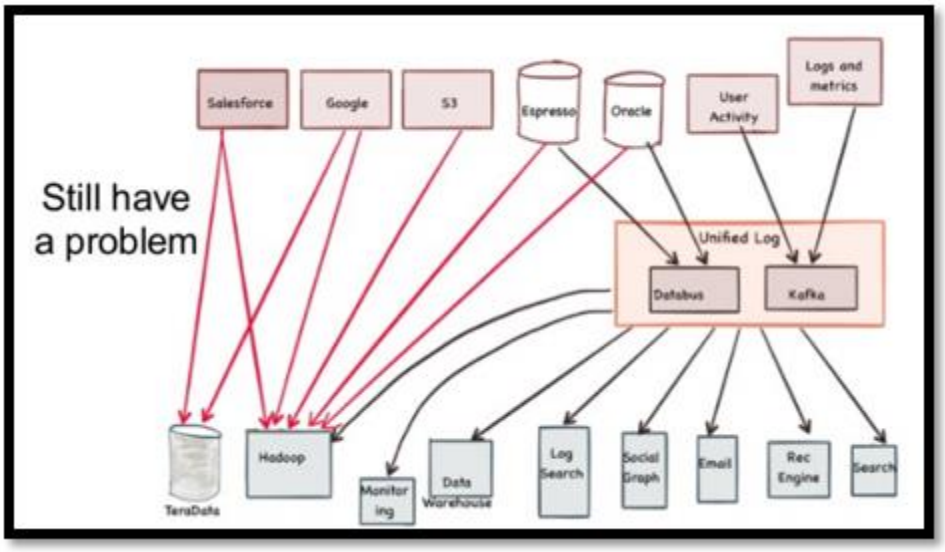
8. LinkedIn has identified that the integration of data from external servers as critical to driving marketing and sales of LinkedIn products.

> In addition to our internal data, we also ingest data from many different external data sources. . . . Bringing all these external and internal datasets together into one central data repository for analytics (HDFS) allows for the generation of some really interesting and powerful insights that ***drive marketing, sales and member-facing data products***.[8]

9. LinkedIn recognized the ingestion of external data from web servers and relating content to other relevant content presented challenges unique to the architecture of the internet where large amounts of data are distributed over a network. The following slide from a 2015 presentation by Shirshanka Das (technical lead of data infrastructure at LinkedIn) and Kapil Surlaker (director of engineering at LinkedIn's data analytics infrastructure group) identifies the challenges presented by making relevant content available on LinkedIn where the content is aggregated from external servers.

[7] *See e.g.*, U.S. Patent Nos. 9,092,792 (assigned to eBay, Inc.), 8,356,277 (assigned to Adobe Systems, Inc.), 8,560,955 (assigned to AT&T, Intellectual Property L.P.), 8,370,370 (assigned to International Business Machines Corp.), 9,210,202 (assigned to Qualcomm, Inc.), 8,832,059 (assigned to CBS Interactive, Inc.), 8,688,669 (assigned to Google, Inc.), 8,874,639 (assigned to Facebook, Inc.), 8,589,292 (assigned to Hewlett-Packard Company L.P.), 9,235,861 (assigned to Apple, Inc.), 8,639,817 (assigned to Amazon Technologies, Inc.), 8,700,609 (assigned to Yahoo!, Inc.), 9,196,000 (assigned to Xerox Corporation), 8,370,948 (assigned to Websense, Inc.), 8,938,073 (assigned to Sony Corporation), 9,253,177 (assigned to Panasonic Intellectual Property Management Co., Ltd.), 9,015,842 (assigned to Raytheon Company), 7,124,093 (assigned to Ricoh Co., Ltd.).

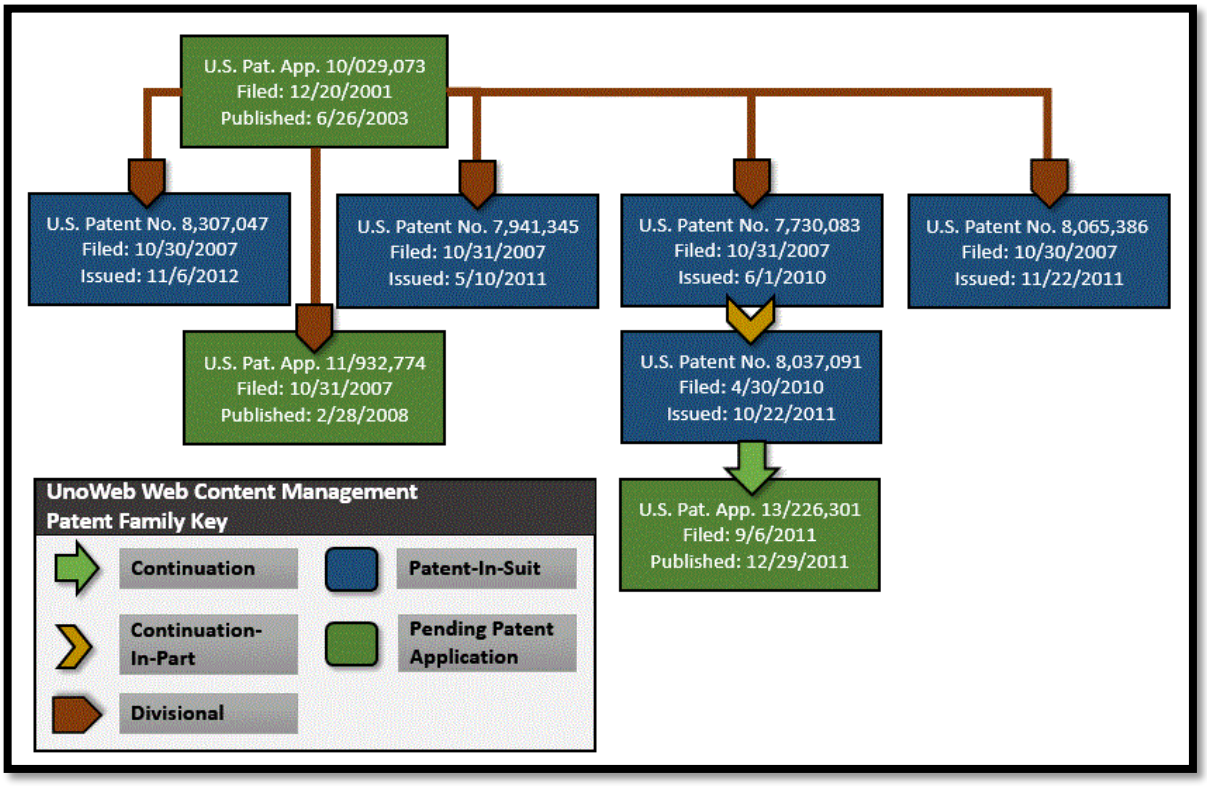
[8] Shirshanka Das and Lin Qiao, *Gobblin' Big Data With Ease*, LINKEDIN ENGINEERING BLOG (November 25, 2014), available at: https://engineering.linkedin.com/data-ingestion/gobblin-big-data-ease (emphasis added).



Kapil Surlaker and Shirshanka Das, *Bigger Faster Easier* at 9, LINKEDIN HADOOP SUMMIT 2015 (July 2015).

10. In developing UnoWeb, Mr. Almeida developed inventions directed to web content management. These inventions led to five patents that disclose systems and methods for distributing and managing access to data where data is stored in multiple external servers or independent content hosts in the same server location. These web content management patents address the difficult problem of managing access to data supplied by third parties.

11. The following diagram shows the UnoWeb Web Content Management patent family tree, pending patent applications, and UnoWeb Web Content Management patents LinkedIn infringes.



12. Mr. Almeida's UnoWeb web system led to the development of additional technologies relating to managing internet advertising,[9] preventing click fraud,[10] filtering undesired electronic messages,[11] symmetric and asymmetric encryption,[12] and global resource sharing between networked servers enabling web applications.[13] The following diagram shows

[9] *See e.g.*, U.S. Patent No. 7,987,139, col. 1:22-26 ("Currently, content writers write content that are integrated onto a blog-portal, virtual community and others, the content writer does all the intellectual work and the hosting environment inserts advertisings and other paid content along the user-provided content without compensating the intellectual-proprietor whatsoever.").

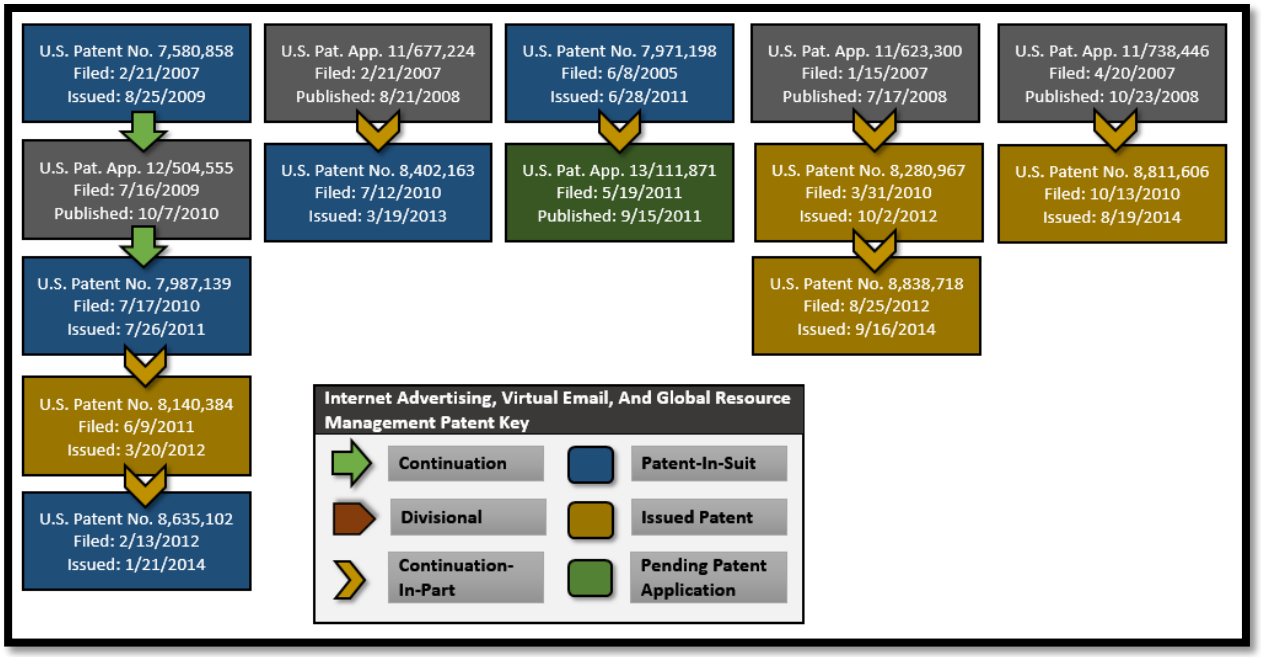
[10] *See e.g.*, U.S. Patent No. 7,580,858, col. 5:5-7 (Referring to the challenges posed by the internet "as never before possible and offering a tremendous potential for the content provider, content host, content distributor and clicker.").

[11] *See e.g.*, U.S. Patent No. 8,280,967, col. 10:14-16 ("the invention may be used to stop spammers and to save resources that would otherwise be wasted on spam").

[12] *See e.g.*, U.S. Patent No. 8,811,606, col. 3:53-56 ("Existing encryption techniques fails to teach a secure means where values other than prime numbers can be used in cryptographic process.").

[13] *See e.g.*, John Almeida, UNOWEB OPENCOMMERCE WORLDWIDE SOLUTIONS BUSINESS MODEL (describing the technologies of the UnoWeb web application); *Instructions on Using UnoWeb OpenCommerce*, UNOWEB OPENCOMMERCE DOCUMENTATION (2002); U.S. Patent No. 7,971,198, col. 1:16-17 (Describing the inventions disclosed as including "sharing of page-

the UnoWeb patents that relate to these technologies, including a pending patent application, and the patents LinkedIn infringes.



UNOWEB'S LANDMARK WEB CONTENT MANAGEMENT SYSTEMS

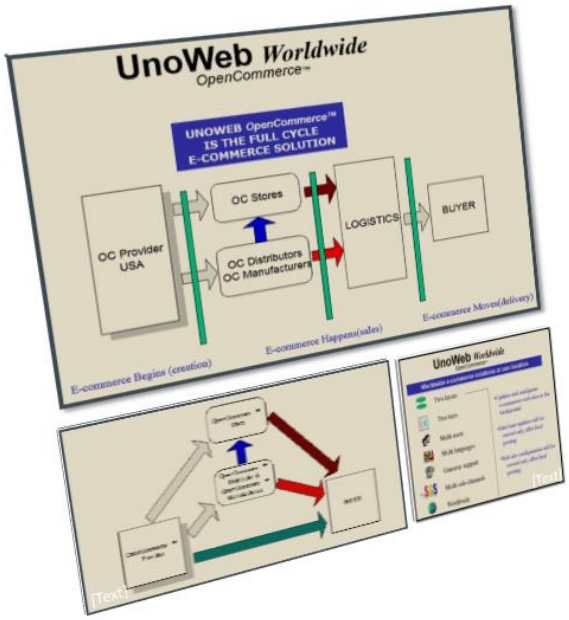
13. Mr. Almeida founded UnoWeb in 2001 in response to a need for systems and methods that would allow an e-commerce system to manage data supplied by third parties (*e.g.*, remote servers communicating over the internet). One of Mr. Almeida's insights was that manufacturers and distributors of goods needed a simple way to make goods and content available to a broad audience of users. "Today's e-commerce requires solutions where seller can have their products/services available to a broad base of buyers, also, virtually available to other e-shops, satellite e-malls and e-malls where they will be offered to a broader clientele base."[14]

14. Mr. Almeida created UnoWeb's OpenCommerce system. UnoWeb OpenCommerce enabled providers and distributors of content to make products available over a shared infrastructure, "offering solutions with a single e-commerce infrastructure at one location.

source code and settings parameters that can be logically linked at the global resource sharing level.").

[14] U.S. Patent App. 10/029,073 at ¶ 10.

All the required solutions are available to every OpenCommerce Provider, OpenCommerce Stores, OpenCommerce Distributor, OpenCommerce Manufactures, and E-Services within the virtual OpenCommerce Network."[15]



John Almeida, *UnoWeb OpenCommerce Architecture*, UNOWEB OPENCOMMERCE WORLDWIDE SOLUTIONS BUSINESS PLAN (2002).

15. UnoWeb's solutions overcome problems unique to the internet and inherent in the state of the art at the time. "At the present, there are needs for easy and affordable worldwide e-commerce solutions where seller can have their goods and services sold without the expertise or the expenses that today's e-commerce requires."[16] Existing e-commerce web sites required providers of content to update services and products directly on [a specific and predetermined] e-commerce platform.[17]

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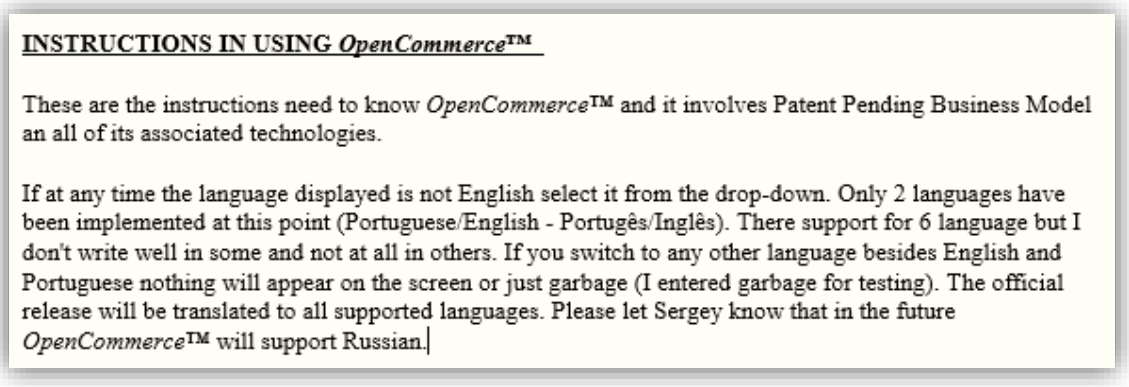
[15] John Almeida, UNOWEB OPENCOMMERCE WORLDWIDE SOLUTIONS BUSINESS MODEL at 2 (2002).

[16] U.S. Patent App. 10/029,073 at ¶ 4.

[17] *See e.g.*, U.S. Patent No. 6,901,378 (this patent was cited on the face of UnoWeb U.S. Patent App. 10/029,073 and describes limitations in existing systems contemporaneous to Mr. Almeida's inventions as "none of the prior art methods have provided for associating information with an image that indicated which products were available for that particular image. Typically, different types of products were separately displayed and only after a user chose a particular type of product."); *see also* U.S. Patent No. 5,745,681 (this patent assigned to Sun Microsystems and cited on the face of UnoWeb's U.S. Patent App. 10/029,017 and published in April 1998 described limitations in the prior art as including "[t]here is currently no reliable



INSTRUCTIONS IN USING *OpenCommerce™*

These are the instructions need to know *OpenCommerce™* and it involves Patent Pending Business Model an all of its associated technologies.

If at any time the language displayed is not English select it from the drop-down. Only 2 languages have been implemented at this point (Portuguese/English - Portugês/Inglês). There support for 6 language but I don't write well in some and not at all in others. If you switch to any other language besides English and Portuguese nothing will appear on the screen or just garbage (I entered garbage for testing). The official release will be translated to all supported languages. Please let Sergey know that in the future *OpenCommerce™* will support Russian.

Instructions on Using UnoWeb OpenCommerce, UNOWEB OPENCOMMERCE DOCUMENTATION at 1 (2002) (user guide for using UnoWeb's OpenCommerce system).

16. Reid Hoffman, Linkedin's co-founder and executive chairperson, has described the importance of content management systems that aggregate content as central to human progress.

> Hoffman said he invests in anything that aggregates humanity—"marketplaces, networks or platforms." But, he ended on a more philosophical note. The things that aggregate human being spur interactions that get us working together. And that will change the world. "Human progress depends on our ability to collaborate."[18]

17. Moreover, Mr. Hoffman has described the need to aggregate data from heterogeneous data sources as presenting "great new opportunities" and "creat[ing] massive value."

> Decision making and generation across a network, across a market ***creates a massive amount of value*** because as opposed to having a centralized system we can actually do all of this kind of, we can have competition, we can have all of this

means to deduce the user's account information from the information accompanying a random .request for a page.").

[18] Ellen McGirt, *LinkedIn's Reid Hoffman: Data Wrangler of the Modern Age*, FAST COMPANY MAGAZINE (March 16, 2011).

> kind of moving and adjusting to the information what's going on in the market. . . . But I also think it presents ***great new opportunities in terms of how we operate***.[19]

18. A 2001 International Business Machines patent application (cited in the prosecution history of the patents-in-suit) identified the inability of web sites to gather content from third parties.

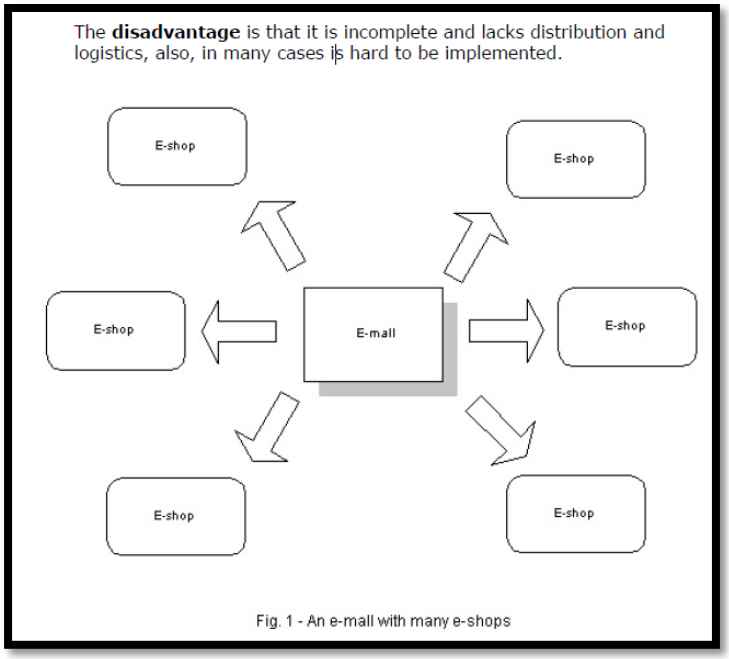
> Furthermore, while the foregoing e-shopping model could provide a combined search result and an incentive for purchasing items from multiple vendors, this purpose is practically defeated because the foregoing e-shopping model does not facilitate the shopping experience. . . . Accordingly, the foregoing e-shopping model, which is representative of current e-shopping services, ***does not adequately address the shoppers' need for an intuitive interface with the vendors' sites to complete numerous purchases from heterogeneous vendors***.[20]

U.S. Patent App. 09/780,636 (filed February 10, 2001 and assigned to IBM) (emphasis added).

19. Existing systems for e-commerce offered providers the ability to create separate e-shops but required that providers use the same platform and commonly the same server. Limitations in existing systems severely restricted the ability to scale the aggregation of content and were difficult to implement. The below figure from a 2002 Overview of the UnoWeb OpenCommerce system shows one of the problems with existing systems where e-shops were required to be hosted on the same platform.

[19] Reid Hoffman, *Live Life In Permanent Beta*, STANFORD UNIVERSITY LECTURE at 27:42-28:30 (February 22, 2012) available at: http://ecorner.stanford.edu/videos/2905/Live-Life-in-Permanent-Beta-Entire-Talk.

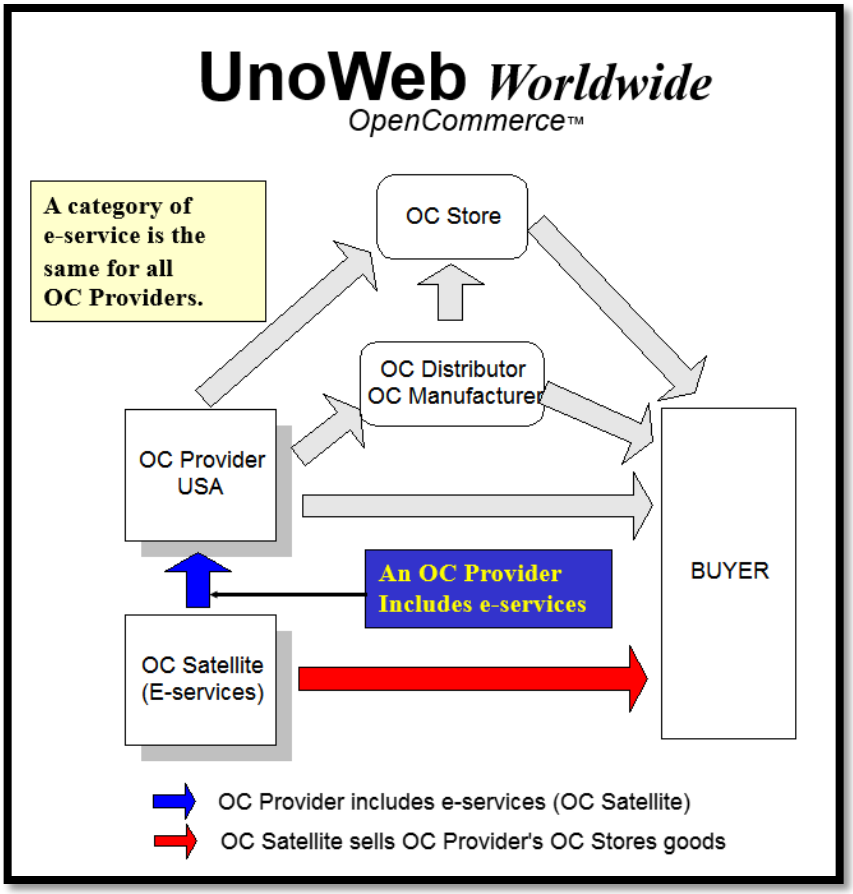
[20] *See also* U.S. Patent No. 6,907,401 (Cited on the face of the patents-in-suit, this patent identified limitations in the state of the art including, efficiently aggregating content from heterogeneous sources. "[A]dditional effort and time may be involved in signing a merchant up for service and manually or periodically updating the merchant's listing."); U.S. Patent No. 7,249,056 ("Therefore, the affiliate sites need to receive and store the most current product (or service) data from a variety of merchants, each of which may make independent decision about how to store and transmit data internally.").



John Almeida, *UnoWeb OpenCommerce Architecture*, UNOWEB OPENCOMMERCE WORLDWIDE SOLUTIONS BUSINESS PLAN at 3 (2002).

20. UnoWeb's OpenCommerce system enabled the transmission of data by content providers using a shared infrastructure. Further, as outlined in a 2001 document from UnoWeb, the use of a virtual network resource infrastructure allows the exchange of content from remote servers without the need for the providers of content to directly update content or handle the creation of e-commerce infrastructure tasks such as "e-commerce web site hosting, credit card gateway, [and] logistics."[21]

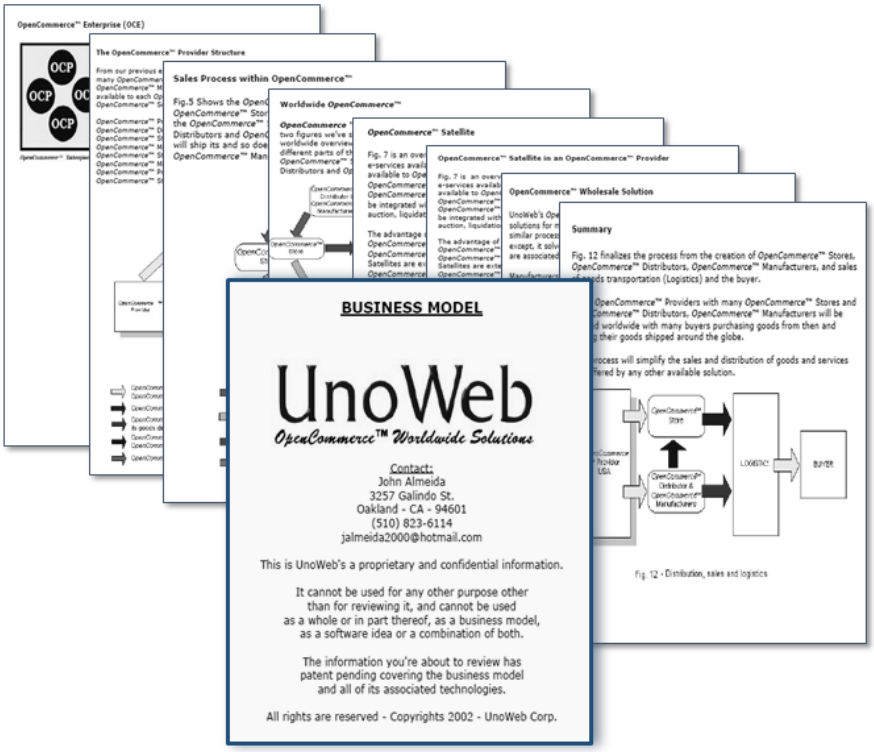
[21] John Almeida, UNOWEB OPENCOMMERCE OVERVIEW PRESENTATION at 10 (2001).



John Almeida, UNOWEB WORLDWIDE OPENCOMMERCE PLATFORM at 23 (July 2001).

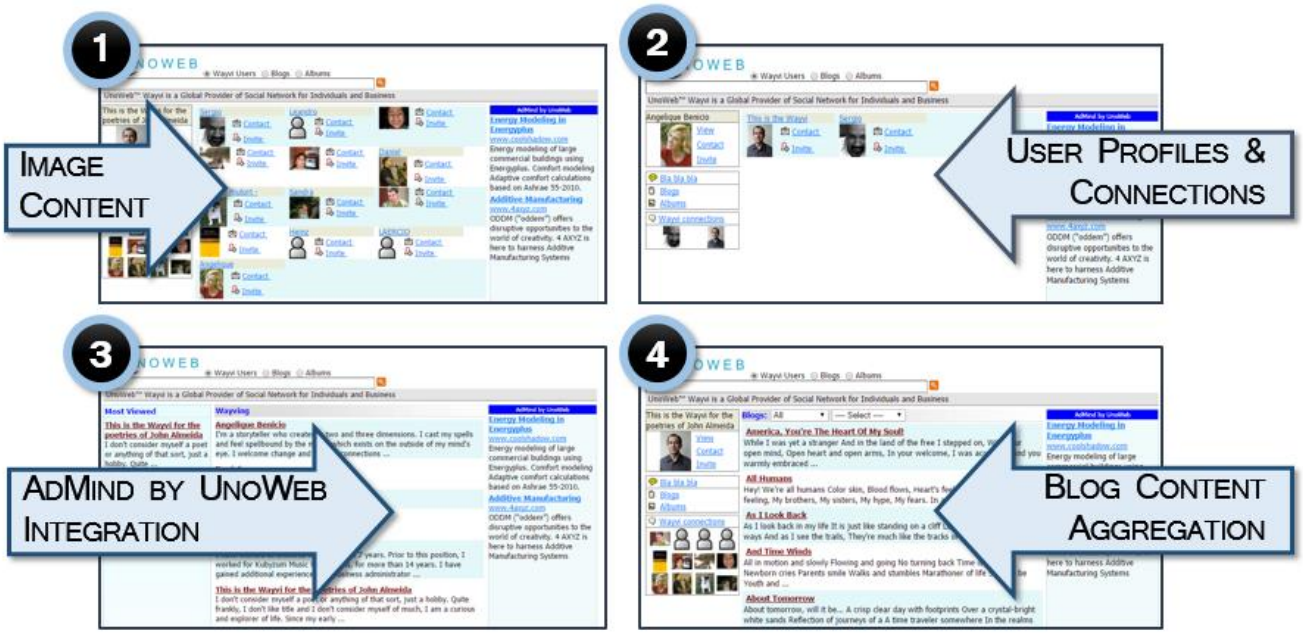
21. John Almeida filed U.S. Patent App. 10/029,073 in December 2001, which disclosed inventions relating to the UnoWeb system. The patent application described a system where "[r]equests are sent and data received from different servers in the network or over the Internet. And they are requests for database objects (table rows) from each server. Once they're received, they are combined and a single dynamic table is formed, then it is related with the virtual table 1502 (ID column) at virtual server 1500."[22]

[22] U.S. Patent App. 10/029,073 at ¶ 138.



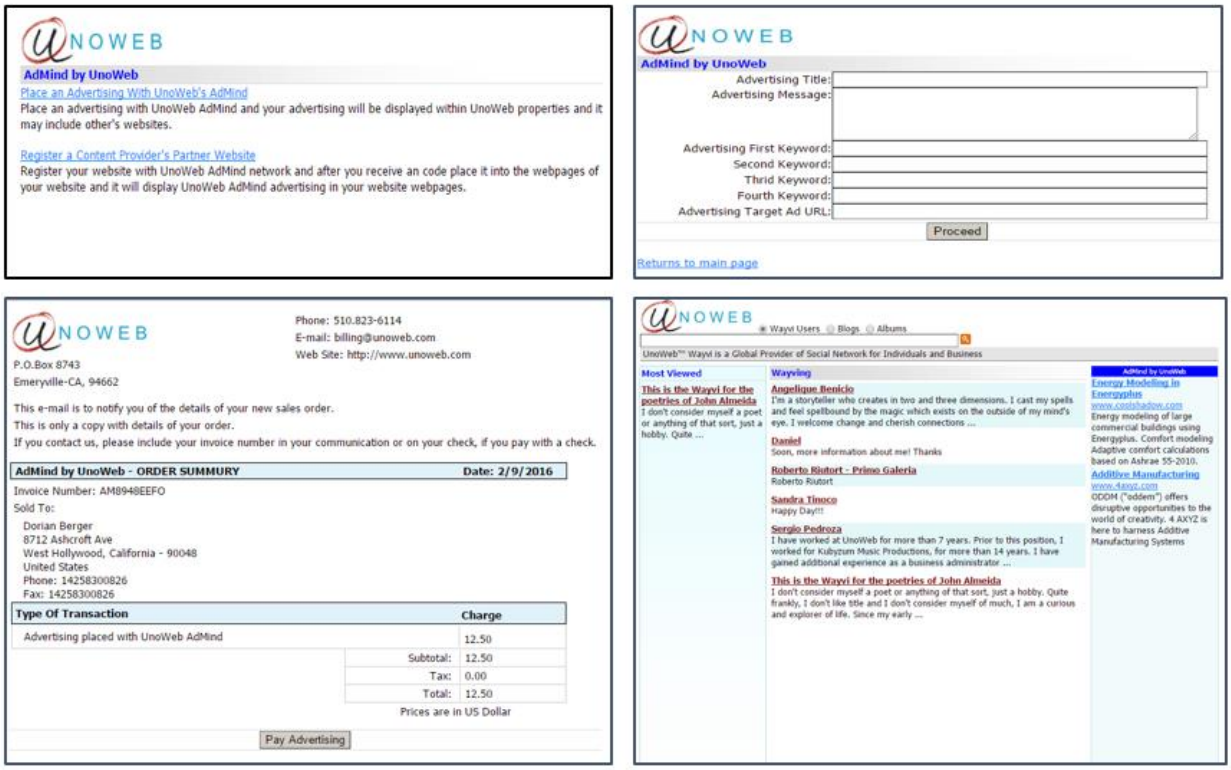
John Almeida, *UnoWeb OpenCommerce Architecture*, UNOWEB OPENCOMMERCE WORLDWIDE SOLUTIONS BUSINESS PLAN (2002) (describing the architecture of the UnoWeb OpenCommerce system).

22. UnoWeb developed a variety of technologies that have been widely adopted by leading internet companies. These UnoWeb systems are available at www.unoweb.com and www.unowebdemo.com. The UnoWeb inventions included the development of a social networking platform that allowed the aggregation of content from a variety of sources. For example, UnoWeb's WayVi system is a Social Network for individuals and businesses that enables the consolidation of third party content on a single webpage. UnoWeb WayVi enables the aggregation of images, photos, blogs, shopping carts, and connection information on one page that is displayed to a user. The below screenshot shows the ability of the UnoWeb WayVi system to retrieve data from a variety of sources for display on a single webpage.



UnoWeb WayVi Webpages, UNOWEBDEMO.COM WEBSITE (showing the aggregation of content including (1) photo albums (2) blog entries (3) applications and (4) user connections).

23. Mr. Almeida recognized that the growing adoption of the internet and the increasingly distributed nature of content on remote web servers presented unique challenges to making relevant content accessible to users. Mr. Almeida also had the insight that the challenges presented in controlling access to third party content could be applied outside the context of e-commerce, with wide applicability to internet advertising where a third party could take advantage of the internet to provide relevant contextual advertising. To address the need for third parties to utilize contextual advertising, UnoWeb developed AdMind and integrated AdMind into UnoWeb's WayVi System. UnoWeb WayVi is UnoWeb's social networking application. The below screenshot shows how advertisements from third parties are linked to relevant content using the UnoWeb platform.



UnoWeb AdMind System, UNOWEB.COM WEBSITE (Showing the UnoWeb AdMind system that enable advertisers to place contextual advertisements. This screenshot also shows how the UnoWeb system enables users to be charged for their context based advertising.).

24. UnoWeb AdMind enables advertisers to purchase advertising that is displayed with contextually relevant content supplied by third parties. The below screenshot from the UnoWeb system shows how advertising is associated to third party supplied content furnished by content providers. UnoWeb provides a mechanism for associating advertising with relevant content.[23]

[23] At the time the inventions disclosed in the patents-in-suit were conceived, the ability to provide contextual advertising was described by major technology companies as directly relating to the unique nature of providing relevant advertising on the internet. *See e.g.*, U.S. Patent No. 8,700,609 (this patent, which references the UnoWeb patents and was assigned to Yahoo!, Inc., states "[t]he present invention relates to online communities, and more particularly to advertising in an online community. The Internet has become a major platform for exchanging goods and information, and has been used for, e.g., online shopping, online auction, photo album sharing and social networking."); *see also* U.S. Patent No. 8,380,576 (this patent, which is assigned to Microsoft Corporation and cites the UnoWeb patents, describes the challenges of allocating revenue between paid and non-paid content in the context of the internet. "While cooperation of these different entities in creating and maintaining the mobile marketplace can provide a tremendous marketing and purchasing resource, allocating revenue resulting from mobile marketplace transactions can be challenging.").

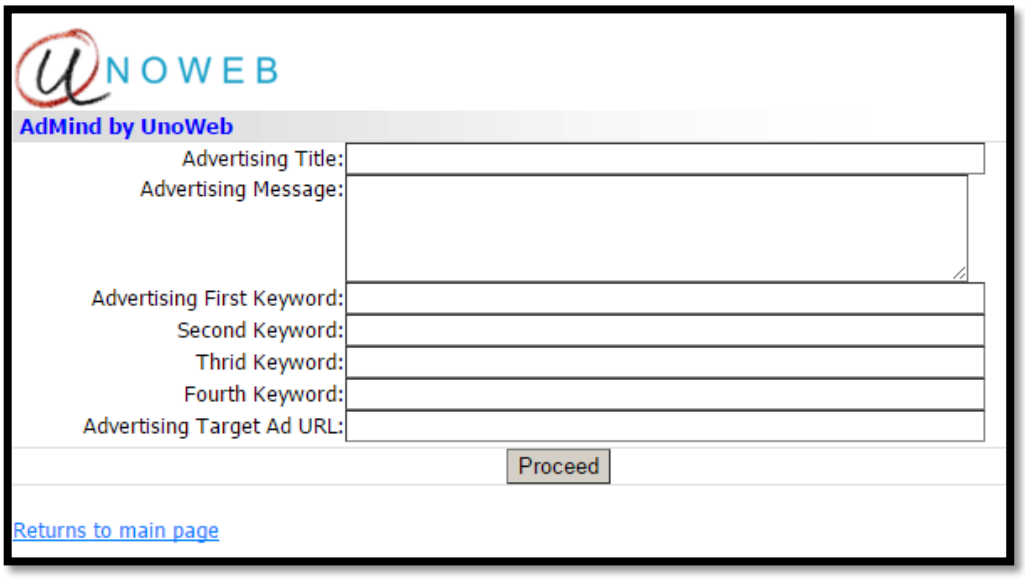
UnoWeb AdMind Associated Content, UNOWEB.COM WEBSITE (showing the association of AdMind advertising with third party content).

25. UnoWeb's AdMind system overcame a problem unique to the internet by allowing third party content to be associated with paid advertising and enabling content providers to be compensated for provisioning content relevant to associated advertising.[24]

[24] Relating paid content (*e.g.*, advertising) with unpaid content (*e.g.* a content provider such as a blogger) was a problem that arose from and was unique to the architecture of the internet. Efficiently relating paid and unpaid content over a computer network has been recognized by companies such as IBM and Yahoo as being specific to the internet. *See e.g.*, U.S. Patent App. 12/826,924 (This patent application (assigned to IBM) cites the UnoWeb patents in its prosecution history and states, "In addition, it is difficult for advertisers to determine where to best place advertisements, since content is diffusely spread over the Internet. A need therefore exists for methods and apparatus for dynamic placement, management and monitoring of blog advertising."); U.S. Patent No. 9,196,000 (This patent, assigned to Yahoo, likewise identifies the unique challenges created by the internet: "dynamic digital solutions or products create issues with respect to collection of fees and the distribution of such fees to the appropriate entities because conventionally, the conventional form of payment for digital content and/or services has been a single payment mechanism.").

UnoWeb AdMind Administration Screens, UNOWEB.COM WEBSITE (showing the signup process for UnoWeb AdMind).

26. UnoWeb's AdMind also developed the use of keyword-based associations between advertisements and third party created content. For example, during the signup process for AdMind, an advertiser can associate an advertisement with various key words. These keywords are subsequently used to associate content with advertisements that are displayed to users.



AdMind by UnoWeb, UNOWEBDEMO.COM WEBSITE (this screen shot shows how the UnoWeb system enables the inputting of key words that are used to match advertising content from third parties to content providers).

27. UnoWeb's patents and published patent applications have been cited in over 200 United States patents and published patent applications as prior art before the United States Patent and Trademark Office.[25] Companies whose patents and patent applications cite the UnoWeb patents include:

- eBay, Inc.
- Amazon.com, Inc.
- Adobe Systems, Inc.
- Microsoft Corporation
- International Business Machines Corporation
- Xerox Corporation
- AT&T Corporation
- Yahoo!, Inc.
- Facebook, Inc.
- Hewlett- Packard Development Company, L.P.
- Raytheon Company
- CBS Interactive, Inc.
- Apple, Inc.
- Demandware, Inc.
- Symantec Corporation
- Websense, Inc.
- Sony Corporation
- Panasonic Corporation
- Netapp, Inc.
- Vodafone Group PLC
- Google, Inc.
- Qualcomm, Inc.
- Alibaba Group Holding Limited
- Ericsson Television, Inc.

THE PARTIES

UNOWEB VIRTUAL, LLC

28. Plano, Texas based UnoWeb provides information management solutions that allow companies and individuals to manage internet content, provide contextual internet advertising, and conduct internet based social networking services.

[25] The 200 forward citations to the UnoWeb Patents do not include patent applications that were abandoned prior to publication in the face of the UnoWeb Patents.

29. John Almeida, the inventor of the patents-in-suit and owner of UnoWeb, resides in the Eastern District of Texas.

30. UnoWeb is committed to advancing the current state of internet content management and internet advertising solutions. UnoWeb's principal place of business is located in the Eastern District of Texas at 5761 Robbie Road, # 3403, Plano, Texas 75024.

31. One of UnoWeb's core markets is internet web-advertising solutions, which refers to a variety of solutions for managing online advertising. One such solution, UnoWeb AdMind provides a platform for managing paid content (*e.g.*, advertisements), matching paid content to relevant unpaid content (*e.g.*, publisher provided content), and handling revenue sharing between the paid and unpaid content. Another such solution is UnoWeb WayVi which provides a social networking platform for exchanging, gathering, and distributing data.

32. UnoWeb is a small, Texas based company. UnoWeb depends on patent protection to effectively license its innovative technologies and sell its UnoWeb systems. Like Defendant LinkedIn, UnoWeb relies on its intellectual property for its financial viability.

> We also rely on a combination of trade secrets, copyrights, trademarks, trade dress, domain names and patents to protect our intellectual property. . . . We hold a growing portfolio of issued patents of varied duration in the United States and internationally, and regularly file patent applications to protect intellectual property that we believe is important to our business. We believe the duration of our patents is adequate relative to the expected lives of our products. We seek to protect our trade secrets through a combination of physical controls and contractual restrictions.[26]

33. LinkedIn's early history is not unlike UnoWeb's. LinkedIn was launched in 2003, to relatively little fanfare. In a then-good economy, it raised less than $5 million in financing and "grew at a glacial pace," attracting a modest number of users numbering in the thousands. As one early LinkedIn executive puts it:

> The team was always confident. [But] there wasn't much investor interest in it. [LinkedIn] did 26 VP pitches early. Basically, two VCs offered to lead…. nobody

[26] LINKEDIN 10-K FILING AT 12 (FEBRUARY 11, 2016); *see also LinkedIn's User Agreement,* LINKEDIN LEGAL WEBSITE, *available at:* https://www.linkedin.com/legal/user-agreement (last visited March 14, 2016) ("LinkedIn Dos and Don'ts: Violate intellectual property rights of others, including patents, trademarks, trade secrets, copyrights or other proprietary rights.").

> else wanted to invest at the time. People were "willing to follow," but that doesn't really count.[27]

34. In its first three years, "[the] company had no revenue," "[n]o one really had any confidence with how the company was going to make money," and it employed "about 50 people." *Id*. After improving its product with additional code several times, and obtaining several new rounds of financing, LinkedIn finally became profitable – in 2010, seven years after forming. As LinkedIn recently explained: Companies that become successful "don't always look that way in the first couple of years." *Id*.

35. LinkedIn has asserted counterclaims in the Eastern District of Texas and stated "[v]enue for these counterclaims is proper with this District [Eastern District of Texas] because the counter counterclaims arise from the lawsuits and ***facts and circumstances*** alleged in the lawsuits filed by Plaintiffs in this District."[28]

36. LinkedIn in numerous cases has stated that the Eastern District of Texas is a "proper" venue to bring claims.[29]

37. LinkedIn has stated in court filings that it does business and actively recruits customers throughout the United States, including the Eastern District of Texas. For example, in March of 2014, LinkedIn stated that defendants' purported access of LinkedIn webservers located in a district made venue proper.

> ***Venue is proper in this District*** under 28 U.S.C. § 1391, because a substantial part of the events or omissions giving rise to the claims occurred in this District. During

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[27] Nicholas Carlson, *Insiders Tell the Story of LinkedIn's Stunning Success*, BUSINESS INSIDER (June 16, 2011).

[28] *TQP Development, LLC v. LinkedIn Corp.*, Case No. 12-cv-191, Dkt. No. 42 at ¶ 6 (April 9, 2013).

[29] *See e.g., MacroSolve, Inc. v. LinkedIn Corp.*, Case No. 12-cv-385, Dkt. No. 23 at ¶ 3 (October 15, 2012) ("Venue is proper in this District under 28 U.S.C. § 1391."); *Innova Patent Licensing, Inc. v. LinkedIn Corp.*, Case No. 12-cv-367, Dkt. No. 14 at ¶ 4 (LinkedIn asserting counter claims in this district and stating "Plaintiff is subject to personal jurisdiction in this District"); *Site Update Solutions LLC v. Accor North America, Inc., et al.*, Case No. 10-cv-151, Dkt. No. 292 at ¶ 18 & 92 (September 21, 2010) ("LinkedIn admits it does business in Texas" "Venue for this counterclaim is proper in this judicial district pursuant to 28 U.S.C. §§1391 and 1400(b)."); *Unified Messaging Solutions, LLC v. Facebook et al.*, Case No. 11-cv-120, Dkt. No. 206 at ¶ 85 (August 29, 2011) (LinkedIn in asserted counterclaims against plaintiffs stating that "Venue may be made in this District, pursuant to at least 28 U.S.C. §§ 1391 and 1400.").

> all relevant times, Defendants have repeatedly, knowingly, and intentionally accessed ***LinkedIn's servers located in this judicial district without LinkedIn's authorization,*** and have contracted for such access, becoming registered LinkedIn members subject to LinkedIn's User Agreement.[30]

38. In *LinkedIn Corporation v. Robocog Inc., D/B/A/ HiringSolved and Shon Burton,* LinkedIn stated that the presence of "servers located in this judicial district" made venue proper. Similarly, LinkedIn's maintenance of servers makes the Eastern District of Texas a proper venue for UnoWeb's patent infringement claims. "LinkedIn, the social network for business, continues to expand its data center infrastructure to support its rapid growth. Last month, the company signed a $116 million, 11-year lease for a large chunk of data center space, the company says in an SEC filing."[31]

39. The following image shows LinkedIn's datacenter in Richardson, Texas.

The Electrical Collection, CUMMINGS ELECTRICAL, Inc. Vol. 3 Issue 2 at 1 (2011) (image of Texas Governor Rick Perry cutting the ribbon at the Digital Realty Trust Data Center in Richardson, Texas).

40. Executives at LinkedIn have placed great emphasis on obtaining patents for business methods.

[30] *LinkedIn Corp. v. Robocog Inc., D/B/A/ HiringSolved and Shon Burton,* Case No. 14-cv-68, Dkt. No. 8 at ¶¶ 10-11 (N.D. Cal. March 27, 2014).

[31] Rich Miller, *LinkedIn Expands With Texas Data Center*, DATA CENTER KNOWLEDGE WEBSITE (November 6, 2013), available at: http://www.datacenterknowledge.com/archives/2013/11/06/linkedin-expands-with-dallas-data-center/

> But Reid Hoffman, chief executive of LinkedIn, and Mark Pincus, chief executive of Tribe, considered the six degrees patent so valuable that they bid on it and won when YouthStream decided to auction it, saying it was not using it in its current business operations. They learned about it from Andrew Weinreich, a lawyer, who founded Sixdegrees.com in 1997 with a friend, Adam Seifer. YouthStream bought the company in 1998 for stock then worth $125 million.

Teresa Riordan, *Technology & Media: Patents; Idea For Online Networking Brings Two Entrepreneurs Together*, N.Y. TIMES (December 1, 2003).

41. LinkedIn has acquired patents from entities and inventors located within one hundred miles of this District.[32]

42. LinkedIn sale and distribution of products and services that infringe the patents-in-suit has caused and continues to cause UnoWeb irreparable harm.

43. As a result of LinkedIn's unlawful competition in the Eastern District of Texas and elsewhere in the United States, UnoWeb has lost sales and profits and suffered irreparable harm, including lost market share and goodwill.

LINKEDIN CORPORATION

44. LinkedIn is a Delaware corporation with its headquarters at 2029 Stierlin Court, Mountain View, California 94043. LinkedIn may be served via its registered agent, Corporation Service Company d/b/a CSC - Lawyers Incorporating Service, 211 E. 7th Street, Suite 620, Austin, Texas 78701-3218.

45. On information and belief, LinkedIn has offices in Texas where it sells, develops, and/or markets its infringing products, including:

- Maintaining a physical presence through a data center located in Richardson, Texas.[33]

[32] *See e.g.*, U.S. Patent No. 7,865,575 (listing Gregory Leitheiser of Irving, Texas as the sole inventor and assigned to LinkedIn); *see* U.S. Patent and Trademark Office Assignment, Reel/Frame at 35201-479 (recorded March 31, 2014).

[33] Shawn Zandi, *Project Altair: the Evolution of LinkedIn's Data Center Network*, LINKEDIN ENGINEERING BLOG (March 21, 2016), available at: https://engineering.linkedin.com/blog/2016/03/project-altair--the-evolution-of-linkedins-data-center-network ("In order to reliably deliver our services to our members and customers, we have expanded our data center footprint over the past few years with new facilities in Virginia and Texas.").

- LinkedIn's data centers located in the district are a "core" data center site.[34]
- LinkedIn has partnered with Texas companies to launch its infringing products.[35]
- LinkedIn has employees in Texas.[36] LinkedIn employees located in Dallas, Texas have posted on twitter: "LinkedIn is looking for a dynamic sales person to join my efforts in the Southwest. Let us know if you're interested!"[37]
- LinkedIn is registered to do business in the State of Texas.[38]
- LinkedIn has received tax abatement grants and similar compensation from Texas municipalities and the State of Texas for its Richardson, Texas data center.[39]
- Enabling advertising targeting using the infringing product based on LinkedIn users being located in this District and other cities in Texas.
- LinkedIn has acquired patents that were asserted in the Eastern District of Texas.[40]

46. LinkedIn provides web-advertising solutions in the form of its LinkedIn Ads system. LinkedIn's customers infringe the patents-in-suit through the LinkedIn Ads system. Further, LinkedIn encourages customers to use infringing software at least by making its content-

[34] DIGITAL REALTY INVESTOR DAY PRESENTATION at 10-11 (October 6, 2015) (identifying LinkedIn has having a data center located in Dallas, Texas).

[35] *New Relationship Gives B2B Sales More Ways to Connect with Prospects*, HOOVER'S INC. PRESS RELEASE (January 10, 2011) (describing LinkedIn's partnership with Texas based Hoovers, Inc. "the LinkedIn integration will provide business-to-business (82B) sales professionals with a seamless interface to leverage their own Linkedln networks within the vast context of Hoover's business data").

[36] *LinkedIn Job Listing – Account Executive – Marking Solutions*, LINKEDIN MARKETING SOLUTIONS CAREERS WEBSITE (describing an job opening for a LinkedIn mid to senior level position located in the "Dallas/Fort Worth Area").

[37] Erin Bryant, *@erincbryant Twitter Feed*, TWITTER.COM WEBSITE (July 8, 2011) (at the time Erin Bryant was an account executive in LinkedIn's Marketing Solutions group).

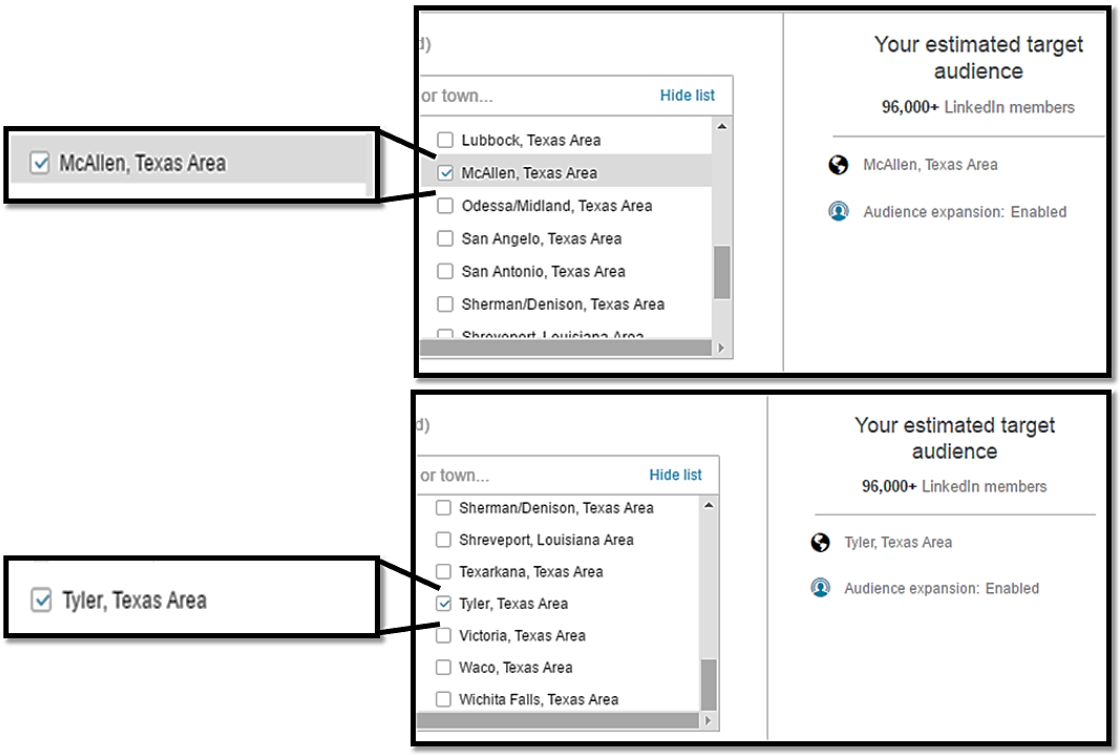
[38] *LinkedIn Corporation Registration*, APPLICATION FOR REGISTRATION OF A FOREIGN FOR-PROFIT CORPORATION (filed May 12, 2014) ("The purpose or purposes of the coporation that it proposes to pursue in the transaction of business in Texas as set forth below: Online professional network.").

[39] *List of Texas Registered Qualifying Data Centers*, TEXAS COMPTROLLER OF PUBLIC ACCOUNTS WEBSITE (last visited March 22, 2016), available at: http://comptroller.texas.gov/taxinfo/data_centers/reg_data_centers_list.html (Listing the LinkedIn Richardson Texas Data Center as a registered qualifying data center.).

[40] *See* U.S. Patent Nos. 7,047,202 and 7,761,383 (assigned to LinkedIn following being asserted in the Eastern District of Texas - PTO Assignment, Reel/Frame 31938-268.

sharing services available on its website, widely advertising those services, providing applications that allow users to access those services, and providing technical support to users.

47. LinkedIn specifically targets its internet advertising and content management system to the Eastern District of Texas, including through providing detailed demographic information for residents of the District and enabling LinkedIn advertisers to use demographic information about residents of the district to develop targeted internet advertising programs. For example, the following screen shots show LinkedIn's identification of LinkedIn users in McAllen, Texas and Tyler, Texas.



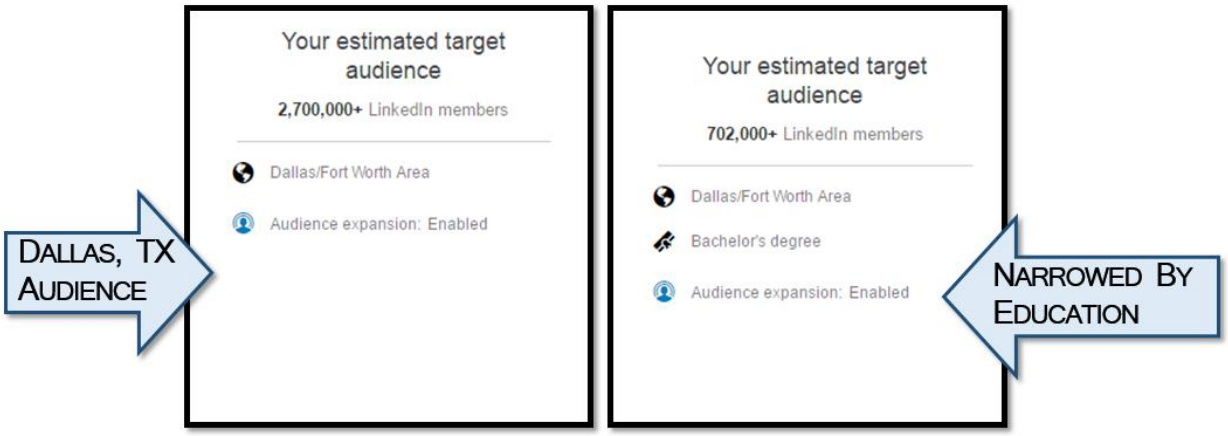
LinkedIn Campaign Management, LINKEDIN ADS SYSTEM, *available at:* https://www.linkedin.com/ad/accounts/ (last visited March 10, 2016).

48. LinkedIn competes directly with UnoWeb in the web advertising market by offering for sale and selling the infringing LinkedIn advertising solutions. The below screen capture provides further evidence that LinkedIn directs its internet advertising solutions to residents located in the District. For example, where a customer seeks to advertise www.unoweb.com to residents of the District who are associated with the University of Texas at

Tyler, LinkedIn identifies that advertising will be targeted to more than 9,000 LinkedIn members.

LinkedIn Campaign Management, LINKEDIN ADS SYSTEM, *available at:* https://www.linkedin.com/ad/accounts/ (last visited March 10, 2016) (showing (1) the ability to target internet advertising for customers that might visit the UnoWeb internet properties, and (2) enabling advertisers to target potential UnoWeb customers located in this district *e.g.*, Dallas, Texas).

49. The infringing LinkedIn Ads system directly targets this district by automatically retrieving and displaying to potential internet advertisers demographic information specific to the Eastern District of Texas. The retrieval and display of demographic information specific to locations in this District encourage advertisers to target the Eastern District of Texas. The below screen shot shows that when Dallas/Fort Worth is identified by LinkedIn as the audience for an advertiser using the infringing LinkedIn Ads system, audience information is shown to advertisers. The information shown by LinkedIn to advertisers includes the number of potential individuals who are (1) located in this District, and (2) the number of individuals who have a bachelor's degree.



LinkedIn Campaign Management, LINKEDIN ADS SYSTEM, *available at:* https://www.linkedin.com/ad/accounts/ (last visited March 10, 2016).

50. Because LinkedIn actively targets customers in the Eastern District of Texas, LinkedIn's infringement adversely affects UnoWeb and UnoWeb employees who live and work in the Eastern District of Texas (*e.g.*, John Almeida, UnoWeb's founder and owner).

JURISDICTION AND VENUE

51. This action arises under the patent laws of the United States, Title 35 of the United States Code. Accordingly, this Court has exclusive subject matter jurisdiction over this action under 28 U.S.C. §§ 1331 and 1338(a).

52. Upon information and belief, this Court has personal jurisdiction over LinkedIn in this action because LinkedIn has committed acts within the Eastern District of Texas giving rise to this action and has established minimum contacts with this forum such that the exercise of jurisdiction over LinkedIn would not offend traditional notions of fair play and substantial justice. Defendant LinkedIn, directly and/or through subsidiaries or intermediaries (including distributors, retailers, and others), has committed and continues to commit acts of infringement in this District by, among other things, offering to sell and selling products and/or services that infringe the patents-in-suit. Moreover, LinkedIn is registered to do business in the State of Texas, has facilities in the State of Texas, and actively directs its activities to customers located in the State of Texas.

53. Venue is proper in this district under 28 U.S.C. §§ 1391(b)-(d) and 1400(b). Defendant LinkedIn is registered to do business in the State of Texas, has facilities in the State of Texas, and upon information and belief, has transacted business in the Eastern District of Texas and has committed acts of direct and indirect infringement in the Eastern District of Texas.

TECHNOLOGY BACKGROUND

54. Advances in computational power and the explosive growth of the internet have led to the development of web content management and advertising systems that aggregate data from third party servers on a network and enable the provisioning of advertising content so the paid advertising content is contextually relevant to users.

- ***The UnoWeb Web Content Management patents*** teach specific computer based web content management systems, including systems that use a virtual network resource infrastructure for hosting and managing heterogeneous data from third party providers.
- ***The UnoWeb Internet Advertising patents*** teach specific computer based web content management systems, including systems that enable revenue sharing between all parties that are involved in the process of interacting with paid content and helping generate revenues.
- ***The UnoWeb Global Resource Sharing patent*** teaches specific methods and systems for networked servers to enable global resource sharing using logically linked software code blocks, application pages and application settings.

55. Mr. Almeida invented ways of overcoming drawbacks arising from web content management and internet advertising systems. Mr. Almeida's inventions improved upon the then-available technology, enabled the production and generation of more effective communications, distribution of applications over a computer network, reduced costs, and resulted in improvements to Web Content and Internet Advertising systems.

56. Mr. Almeida disclosed his inventions to the public, had the claims in the patents-in-suit repeatedly scrutinized on grounds of eligibility, novelty, non-obviousness, written description, and enablement by examiners at the U.S. Patent Office, overcame hundreds of prior art references through prosecution proceedings, paid and continues to pay filing and maintenance fees to the U.S. Patent Office, and was awarded the UnoWeb patents. Because of those actions,

the public has benefitted from Mr. Almeida's disclosures, and each claim of each patent is statutorily protected by a presumption of validity that can be rebutted only by clear and convincing evidence.

57. The examiners who issued the UnoWeb patents examined claims in parent and related applications, and repeatedly cited many prior art references, before satisfying themselves that the claims of the patents differed substantially from the paradigm of earlier technology.

58. During examination of the UnoWeb patents, the U.S. Patent Office had access to and knowledge of the then-current state of the art and earlier technology. For the patents-in-suit alone, the materials cited on the face of the patents and considered by the examiners include hundreds of U.S. patents and published applications, foreign patent documents, and non-patent references.

59. The U.S. Patent Office's examination of the UnoWeb patents has extended over fifteen years and continues today in pending patent applications. Six of the UnoWeb patents issued after *Bilski v. Kappos*, 561 U.S. 593 (2010), and *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 132 S. Ct. 1289 (2012) (UnoWeb '047, '102, '163, '967, '718, and '606 patents).[41]

60. The UnoWeb patents claim technical solutions to technological problems including using thresholds to prevent internet "click fraud," enabling content aggregation where the content is generated by two or more web servers, managing how interactions with the Internet are manipulated to yield a desired result such as content aggregation or advertising revenue sharing, monitoring and accurately logging the display of internet advertising, mapping out relationships between content hosts, and indexing objects and relating objects for display on a web page. District Courts throughout the United States have found claims directed to concepts similar to those contained in the UnoWeb patents to be patent eligible.[42]

[41] Although the examinations of four of these UnoWeb patents predated *Alice Corp. v. CLS Bank Int'l*, 134 S. Ct. 2347 (2014), *Alice* applied the *Mayo* framework and stated that its holding "follows from our prior cases, and *Bilski* in particular."

[42] *See e.g., BitTitan, Inc. v. SkyKick, Inc*., Case No. 15-cv-754, Dkt. No. 50 at 3 (W.D. Wash. August 27, 2015) (Denying dismissal of claims prior to claim construction where plaintiff alleged that "the claim is patentable because it is directed to an idea 'necessarily rooted in

61. LinkedIn prizes systems that manage the integration of heterogeneous data and applications from third parties including servers containing data that is aggregated for display to users over the internet.

Reid Hoffman, *On The Future of Jobs, Social Data Revolution,* ANDREWS WEIGENG – SOCIAL DATA LAB INTERVIEW (June 2009), *available at*: https://www.youtube.com/watch?v=wPhmKasTiAg ("Well, what happens ***with the construction of the internet is now you actually [have] every person is now a participant with data*** . . . how I connect things to other people . . . and that human interactivity and then bringing kinda economic

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computer technology in order to overcome a problem specifically arising in the realm of computer networks' and also because the claims specify 'how interactions with the Internet are manipulated to yield a desired result.'"); *Versata Software, Inc. et al v. Zoho Corporation,* Case No. 13-cv-371, Dkt. No. 101 at 4 (W.D. Tex. August 11, 2015) (Denying Defendants' motion for summary judgment where the patent-in-suit was directed to allowing systems updates as "the growth of mobile device usage led to a corresponding increase in the demand for rich information content; however, the 'inevitable' space constraints on mobile devices 'limit[ed] the richness of information content available to a user.'"); *TimePlay, Inc. v. Audience Entertainment LLC*, Case No. 15-cv-5202, Dkt. No. 28 at 7 (N.D. Cal. November 10, 2015) (Denying motion to dismiss and finding the concept of "idea of multi-player gaming using a hand-held controller that has a display screen where the players are also in front of a shared display," to not be abstract.); *DataTern, Inc. v. MicroStrategy, Inc. et al,* Case No. 11-cv-12220, Dkt. No. 123 at 16 (D. Mass. September 4, 2015) (Denying Defendants' motion for summary judgment and finding that the patent "could be described as encompassing the abstract concept of 'mapping out relationships between two databases,' the claims of the patent would appear to be sufficiently limited in scope as to supply an 'inventive concept.'"); *Klaustech, Inc. v. AdMob, Inc.,* Case No. 10-5899, Dkt. No. 145 at 5 (N.D. Cal. August 31, 2015) (Finding claims direct to "address[ing] the prevailing problem of advertising on the Internet to control the advertising to each web page viewing browser and to monitor accurately the timing of the display, with proof of the advertisement display to the paying advertiser."); *Realtime Data, LLC v. Actian Corporation, et al,* Case No. 15-cv-463, Dkt. No. 256 at 1 (E.D. Tex. March 8, 2016) (Denying defendants' request for early claim construction based on "the patents-in-suit broadly discuss all types of data 'some easily recognizable to humans and some not.'"); *International Business Machines Corporation v. The Priceline Group, Inc. et al*, Case No. 15-cv-137, Dkt. No. 60 at 14 (D. Del. February 16, 2016) (Finding Plaintiff's claims were patent eligible as the complaint alleged that the patents contained the inventive concept of a "division of applications and advertising into discreet 'objects' that are stored locally and at the host computer appears to be a concrete application of the concept of 'local storage.'").

ecosystems . . . and that ***enables a transformative properties***. For example, with LinkedIn . . . what you do now that you have this whole network is you can have your identity and connect to people and your creating a bunch of a whole wide variety of data including what you should look at on the web.") (emphasis added).

62. LinkedIn patents have similarly described the aggregation of content from third party servers as unconventional.

> Contemporary social networks can ***conventionally allow users of the social network to upload personal data and other information*** to the social network and establish relationships with other users of the social network. . . The source of such postings can derive from the direct input of a user, such as by posting a self-crafted message for viewing by other users of the social network. [Describing the unconventional nature of the invention as] A unified social content platform has been created that can incorporate common publication and ***data retrieval across the social network.***

U.S. Patent No. 9,213,760 (assigned to LinkedIn Corporation).

63. LinkedIn's co-founder, Reed Hoffman, applied for and was issued patents on systems directed toward the efficient and confidential transmission of information.

> [N]on-transitory machine-readable medium embodying instructions which, when added to a social networking system as one or more components included instructions executed by one or more processors of the social networking system, improve sorting of search results on the social networking system by performing operations, the operations comprising:

U.S. Patent App. No. 14/675,677, Claim 7 (listing James Duncan Work, Allen J. Blue and Reid Hoffman as inventors).

64. Further, entities such as Yahoo have recognized that aggregation of content from third parties is "central" and "fundamental" to their business.

> Yahoo said in a statement to Ars that it is confident it will win the suit. "Yahoo! has invested substantial resources in research and development through the years, which has resulted in numerous patented inventions of technology that other companies have licensed," the company said. "These technologies are the ***foundation of our business*** that engages over 700 million monthly unique visitors and represent the spirit of innovation upon which Yahoo! is built."[43]

65. LinkedIn competitors such as AOL.com have confirmed the importance and value of content aggregation systems that enable the integration of third-party data over the internet.

> The company has a two-fronted approach to its business, delivering content in order to build a user base, and offering advertising services for agencies and direct customers looking to connect with those consumers. "We think at the fore about

[43] Jon Brodkin, *Yahoo IP lawsuit: We Patented Facebook's Entire Social Network Model*, ARS TECHNICA (March 13, 2012) (emphasis added).

> content, aggregation of audience, and making sure that its multi-screen. And so we are endeavoring to ensure that that content is digestible, it's relevant, it's easy, and it's working," Moysey said.[44]

66. Although content aggregation systems that enable a web content management system to access data stored on a third party server are offered by major corporations today, at the time the inventions disclosed in the UnoWeb Web Content Management patents were conceived, no comparable systems existed.

67. At the time the inventions disclosed in the UnoWeb Web Content Management patents were conceived, the internet, and the state of technology generally, was vastly different from 2016, or even the state of the internet 10 years ago. For example, Facebook.com, Myspace.com, LinkedIn.com, and Twitter.com were years from being launched.

[44] *AOL Seeing Breakneck Adoption of Content on Mobile*, MOBILE WORLD LIVE, available at: http://www.mobileworldlive.com/featured-content/top-three/aol-seeing-breakneck-adoption-content-mobile-exec/ (April 13, 2015).

The above images show major internet properties contemporaneous (and later) to the inventions conceived in the UnoWeb Web Content Management patents, including: (1) Facebook (February 2004), (2) Myspace.com (August 2003), (3) LinkedIn.com (December 2002), and (4) Twitter.com (March 2006).

68. During the prosecution history of the ‘386 patent the Examiner distinguished the inventions from the prior art by stating.

> [The prior art reference] does not teach as follows: Indexing the key words forming a database table containing each of the key words (see, e.g., applicant's published specification paragraph [0220]); and Selecting a key word (surf list) from within the database table and identifying a second content (web page) by finding relationship between the second content and the key word selected (the web server uses the list just retrieved from the session variable and searches the database. And finally, it will fetch web pages and/or product's page that correspond to the values in the session variable and sent the page to the web browser, see, e.g., applicant's

> published specification paragraph [0230]). ***No prior art reference was found that discloses this feature***.[45]

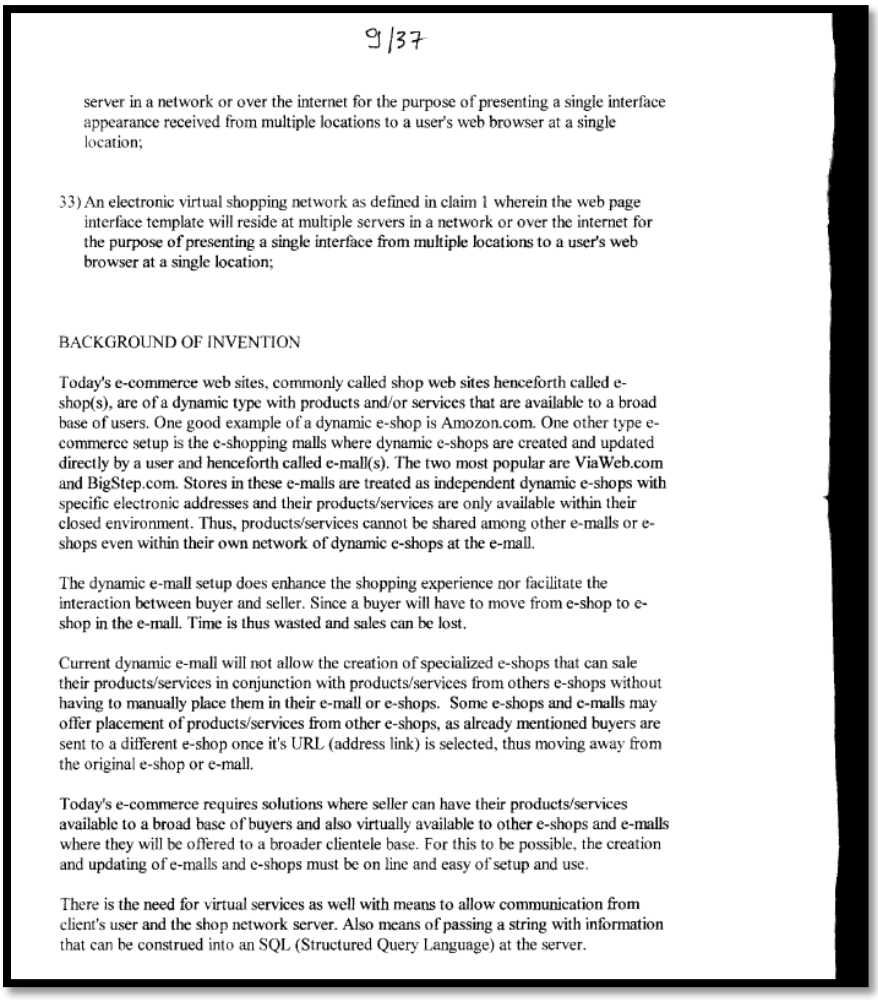
69. Other prior art references were distinguished, on similar grounds, by the U.S. Patent Office in the prosecution of the '047 patent.

> [N]o prior art reference expressly teaches as follows: Displaying the first dynamic content hosted by a first host and the second dynamic content hosted by a second host to a user accessing the second host as if the first dynamic content originated from the second host e.g., applicant's published specification paragraph [0181]); and configuring the server to control interfacing with the user accessing the first dynamic content and the second dynamic content through the second host (see, e.g., applicant's published specification paragraph [0214]). ***No prior art reference was found that teaches this feature.***[46]

70. From the conception of the UnoWeb patents, the inventions were directed at solving problems unique to and arising from the architecture of the internet. Mr. Almeida, in notebooks dating to 2001, identified the inventions disclosed in the UnoWeb Content Management Patents as being directed to problems arising from the technology associated with e-commerce. "Current dynamic email will not allow the creation of specialized e-shops," "e-commerce requires solutions where seller can have their products/services available to a broad base," and "[t]here is a need for virtual services."

[45] *U.S. Patent Office Notice of Allowability***,** Application/Control Number: 11/930,003 at 3 (September 21, 2011) (emphasis added) (this patent application issued as the UnoWeb '386 patent).

[46] *U.S. Patent Office Notice of Allowability*, Application/Control Number: 11/930,044 at 3 (May 30, 2012) (emphasis added).



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server in a network or over the internet for the purpose of presenting a single interface appearance received from multiple locations to a user's web browser at a single location;

33) An electronic virtual shopping network as defined in claim 1 wherein the web page interface template will reside at multiple servers in a network or over the internet for the purpose of presenting a single interface from multiple locations to a user's web browser at a single location;

BACKGROUND OF INVENTION

Today's e-commerce web sites, commonly called shop web sites henceforth called e-shop(s), are of a dynamic type with products and/or services that are available to a broad base of users. One good example of a dynamic e-shop is Amozon.com. One other type e-commerce setup is the e-shopping malls where dynamic e-shops are created and updated directly by a user and henceforth called e-mall(s). The two most popular are ViaWeb.com and BigStep.com. Stores in these e-malls are treated as independent dynamic e-shops with specific electronic addresses and their products/services are only available within their closed environment. Thus, products/services cannot be shared among other e-malls or e-shops even within their own network of dynamic e-shops at the e-mall.

The dynamic e-mall setup does enhance the shopping experience nor facilitate the interaction between buyer and seller. Since a buyer will have to move from e-shop to e-shop in the e-mall. Time is thus wasted and sales can be lost.

Current dynamic e-mall will not allow the creation of specialized e-shops that can sale their products/services in conjunction with products/services from others e-shops without having to manually place them in their e-mall or e-shops. Some e-shops and e-malls may offer placement of products/services from other e-shops, as already mentioned buyers are sent to a different e-shop once it's URL (address link) is selected, thus moving away from the original e-shop or e-mall.

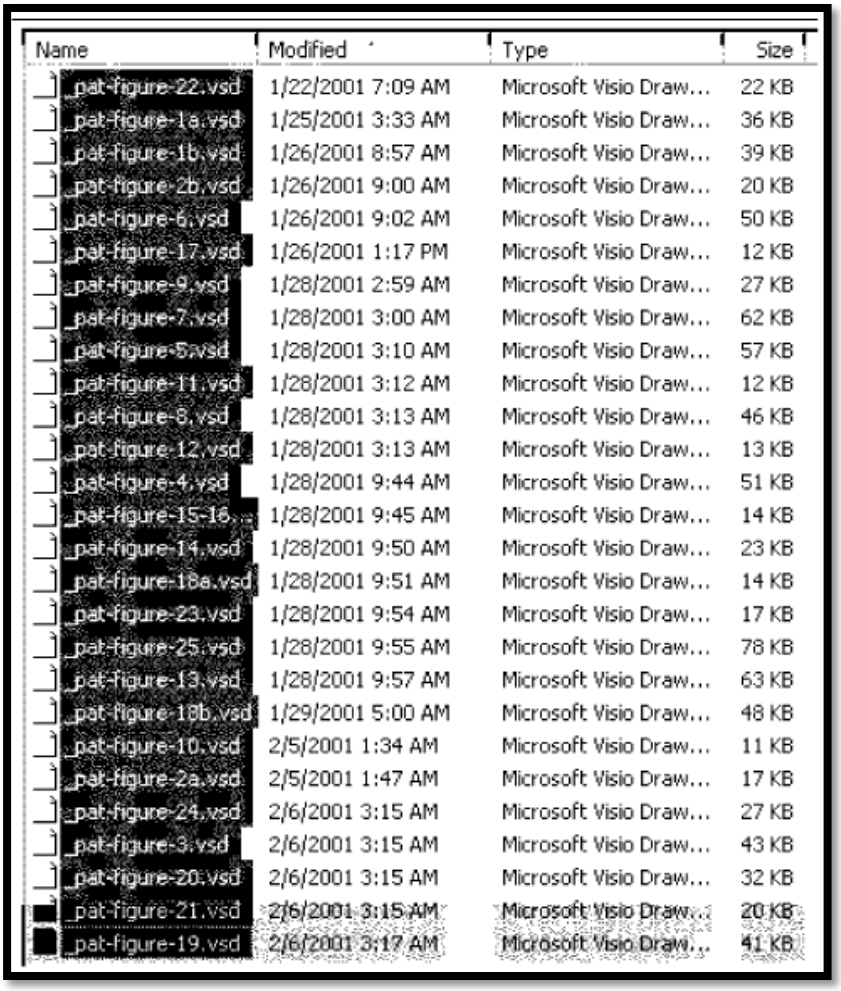
Today's e-commerce requires solutions where seller can have their products/services available to a broad base of buyers and also virtually available to other e-shops and e-malls where they will be offered to a broader clientele base. For this to be possible, the creation and updating of e-malls and e-shops must be on line and easy of setup and use.

There is the need for virtual services as well with means to allow communication from client's user and the shop network server. Also means of passing a string with information that can be construed into an SQL (Structured Query Language) at the server.

JOHN ALMEIDA INVENTOR NOTEBOOK at 9 (January 4, 2001) (cited in the Prosecution History of the '047 patent).

71. Mr. Almeida developed products that led to the inventions disclosed in the UnoWeb Web Content Management products specifically solving technological problems arising from content aggregation on the internet. The inventions disclosed in the patents specify how gathering and processing data stored on third party servers could be manipulated to yield a desired result – a result that overrides the routine and conventional sequence of internet browsing. Instead of a computer network operating in its normal, expected manner (*e.g.*, sending a website visitor to content located on third party web servers). Instead, the claimed system gathers data from third party servers or from third party content hosted on the same physical server and combines this third party data into hybrid web content. Further, the claimed methods

and systems include technologies for combining the web content based on content aggregation tools. When the limitations of the UnoWeb Web Content Management patent claims are taken together as an ordered combination, the claims recite an invention that is not merely the routine or conventional use of the internet.



Name	Modified	Type	Size
_pat-figure-22.vsd	1/22/2001 7:09 AM	Microsoft Visio Draw...	22 KB
_pat-figure-1a.vsd	1/25/2001 3:33 AM	Microsoft Visio Draw...	36 KB
_pat-figure-1b.vsd	1/26/2001 8:57 AM	Microsoft Visio Draw...	39 KB
_pat-figure-2b.vsd	1/26/2001 9:00 AM	Microsoft Visio Draw...	20 KB
_pat-figure-6.vsd	1/26/2001 9:02 AM	Microsoft Visio Draw...	50 KB
_pat-figure-17.vsd	1/26/2001 1:17 PM	Microsoft Visio Draw...	12 KB
_pat-figure-9.vsd	1/28/2001 2:59 AM	Microsoft Visio Draw...	27 KB
_pat-figure-7.vsd	1/28/2001 3:00 AM	Microsoft Visio Draw...	62 KB
_pat-figure-5.vsd	1/28/2001 3:10 AM	Microsoft Visio Draw...	57 KB
_pat-figure-11.vsd	1/28/2001 3:12 AM	Microsoft Visio Draw...	12 KB
_pat-figure-8.vsd	1/28/2001 3:13 AM	Microsoft Visio Draw...	46 KB
_pat-figure-12.vsd	1/28/2001 3:13 AM	Microsoft Visio Draw...	13 KB
_pat-figure-4.vsd	1/28/2001 9:44 AM	Microsoft Visio Draw...	51 KB
_pat-figure-15-16...	1/28/2001 9:45 AM	Microsoft Visio Draw...	14 KB
_pat-figure-14.vsd	1/28/2001 9:50 AM	Microsoft Visio Draw...	23 KB
_pat-figure-18a.vsd	1/28/2001 9:51 AM	Microsoft Visio Draw...	14 KB
_pat-figure-23.vsd	1/28/2001 9:54 AM	Microsoft Visio Draw...	17 KB
_pat-figure-25.vsd	1/28/2001 9:55 AM	Microsoft Visio Draw...	78 KB
_pat-figure-13.vsd	1/28/2001 9:57 AM	Microsoft Visio Draw...	63 KB
_pat-figure-18b.vsd	1/29/2001 5:00 AM	Microsoft Visio Draw...	48 KB
_pat-figure-10.vsd	2/5/2001 1:34 AM	Microsoft Visio Draw...	11 KB
_pat-figure-2a.vsd	2/5/2001 1:47 AM	Microsoft Visio Draw...	17 KB
_pat-figure-24.vsd	2/6/2001 3:15 AM	Microsoft Visio Draw...	27 KB
_pat-figure-3.vsd	2/6/2001 3:15 AM	Microsoft Visio Draw...	43 KB
_pat-figure-20.vsd	2/6/2001 3:15 AM	Microsoft Visio Draw...	32 KB
_pat-figure-21.vsd	2/6/2001 3:15 AM	Microsoft Visio Draw...	20 KB
_pat-figure-19.vsd	2/6/2001 3:17 AM	Microsoft Visio Draw...	41 KB

JOHN ALMEIDA INVENTOR NOTEBOOK Files at 9 (January 4, 2001) (cited in the Prosecution History of the '047 patent) (showing the initial computer figures outlining the systems and methods described in the UnoWeb Web Content Management patents).

72. At the time the inventions disclosed in the UnoWeb Web Content Management patents were conceived, there was a need for technologies that addressed problems arising from the "architecture of the internet." Patent applications cited in the prosecution of the '345, '047, and '386 patents identified this as a "fundamental problem."

> Thus, the ***architecture of the internet is a significant burden*** to both users looking for consumer services and the providers of those products over the internet. ***There***

> ***is a need to address this fundamental problem*** by providing a way for users and service providers to find each other when and where they are most needed.[47]

73. The claims in the UnoWeb Web Content Management patents are directed at problems arising from technologies specific to the internet including "bookmarking" content in a web browser. These "frustrating" problems were identified in a patent application cited in the prosecution history of the '345, '047, and '386 patents.

> With the internet's exploding growth it is extremely frustrating for customers to try to keep track of all the various services that are available to them and to remember which service providers they liked the most. While more modern browsers provide "Favorites" or "Bookmarks" for retaining information that allows quick access to sites, the user must 1) at the time of the visit to the site request the URL of the 20 site to be stored 2) organize those bookmarks in such a way that they are organized optimally. ***Unless, the user remembers the Bookmark and recalls to use it while making a relevant search***, the information can be lost. Thus, ***the Internet is not designed to provide ways for companies to reach prior customers at points of need*** and it does not facilitate alerting past customers to new services provided by the company.[48]

74. Patents that have cited the UnoWeb patents as relevant prior art have identified the unique challenges presented by internet content where the content comes from third-parties presents challenges unique to the internet. For example, U.S. Patent No. 9,141,713, assigned to Amazon.com, identified content that is aggregated from third parties raising challenges in identifying and displaying relevant content for users. "However, determining the relevancy of a particular web page to a keyword search is an inherently difficult task. If a web page does not happen to use the same terms that a user might include in a search for that web page."[49]

75. Although content aggregation, in some form, has been an objective of individuals for many years, the UnoWeb Web Content Management patents are directed to solving problems unique to the realm of internet content management. The claims in the UnoWeb Web Content Management patents describe a solution that is unquestionably rooted in computer technology to

[47] WO 2002/037,220 A2 to Subramanian (emphasis added) (cited in the prosecution of the '345 '047 and '386 patents).

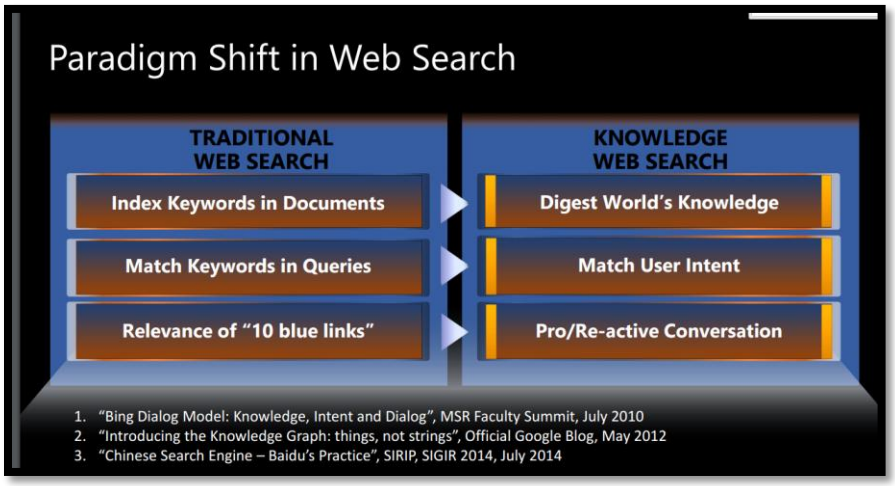
[48] WO 2002/037,220 A2 to Subramanian (emphasis added) (cited in the prosecution of the '345, '047, and '386 patents).

[49] U.S. Patent No. 9, 141,713 (filed December 30, 2005).

overcome a problem specific to and characteristic of complex computer networks. A 1999 patent assigned to Yahoo.com!, Inc. (cited on the face of UnoWeb Patent App. No. 10/029,073), described the drawbacks inherent in existing systems for making content available from third-parties:

> For example, ***a merchant participating in a virtual shopping mall or local commerce site typically had to establish and had to maintain two separate websites***: (1) one website, the merchant's "mall website," for consumers who were shopping for the merchant's goods through the virtual shopping mall or local commerce site and (2) another website, the merchant's "direct website," for consumers who were shopping for the merchant's goods not through the virtual shopping mall or local commerce site, but rather directly through the merchant's own website.[50]

76. Microsoft has identified the ability to target relevant content automatically as constituting a paradigm shift.



Kuansan Wang, *More Productive Research with Intelligent Agent*, 2015 MICROSOFT RESEARCH FACULTY SUMMIT at 5 (July 2015).

77. On information and belief, contemporaneous to, and following conception of the inventions disclosed in the UnoWeb Web Content Management patents, academics, and businesses headquartered in Texas actively entered the field of internet content management.[51]

[50] U.S. Patent No. 6,499,052 (filed August 11, 1999) (emphasis added).

[51] *See e.g.*, Forcepoint L.L.C. (previously known as Websense, Inc.) is based in Austin, Texas and develops content management systems such as the TRITON APX Suite. Patents assigned to Forcepoint which cite the UnoWeb patents as relevant prior art include: U.S. Patent Nos. 9,130,972, 8,938,773, 9015,842, 8,407,784, 9,130,986, 8,959,634, and 8,370,948; *see also* Hewlett-Packard Development Company, L.P. ("HPDC") based in Houston, Texas provides

78. The University of Texas at Austin Stan Richards School of Advertising & Public Relations Moody College of Communication created and founded the TexasMedia program focused on the digital media environment.[52] The University of Texas at Dallas founded the Institute of Data Analytics, a center for research on data analysis, which collaborates with private industry. Baylor University in Waco, Texas is the home of the Electronic Commerce Center, which focuses on integrating technology and electronic data with e-commerce.

1. U.S. Patent No. 7,941,345

79. U.S. Patent No. 7,941,345 ("the '345 patent") entitled, *Method of Presenting Contents Based on a Common Relationship*, was filed on October 31, 2007, and claims priority to December 20, 2001. UnoWeb is the owner by assignment of the '345 patent. A true and correct copy of the '345 patent is attached hereto as Exhibit A. The '345 patent claims specific methods for retrieving the third-party-supplied content comprising first objects describing a product or service, wherein retrieving is from a third-party-hosting server, said retrieving is performed by the server computer.

80. The '345 patent claims a technical solution to a problem unique to computer networks – easy and affordable worldwide e-commerce solutions where a seller can have its goods and services sold without the expertise or the expenses that today's e-commerce solutions require.

81. The '345 patent addressed a problem faced by web site owners who had a need for providing first content and associated second content to a user of a client computer system. The provider's server receives a request from the client computer system to send a first object in

information technology solutions. Patent and patent applications assigned to HPDC which cite the UnoWeb patents as relevant prior art include U.S. Patent No. 8,589,292 and U.S. Patent App. No. 13/791,911.

[52] *Interactive Advertising Bureau*, PREPARING THE NEXT GENERATION FOR INTERACTIVE ADVERTISING CAREERS at 5 (July 2013), available at: http://www.iab.net/media/file/IABEducationResearch2013.pdf ("With the strength of the Advertising program and the ability to incorporate business and digital media courses, UT-Austin has in the best situation to develop an interactive advertising program.").

an HTML page for display on the client computer system. The provider examines the requested first object and includes a related second object/content in the HTML page. Like claims that have been found to constitute patent eligible subject matter, the inventions of the '345 patent are directed towards generating a composite web page that combined certain aspects of a host website with information from a third-party merchant.[53]

82. The '345 patent is directed at generating specific data structures.[54] The generating of data structures includes the generating of a web page that includes the second content.

83. The '345 patent discloses methods to prevent visitors from being lured away by third-party merchants. The methods disclose a system to retain web site visitors by processing data from third-party servers. "[T]hey will have a broad selection without having to go to many different e-shops to find what they're looking for, and also be able to view web pages in their own native language." '345 patent, col. 1:66-2:2. Instead of transporting a web site visitor away from an owner's site, a user is displayed related content from the third-party merchant, "e-services/contents can be retrieved from different server by another server (secondary server) and this secondary server will make any or all of these e-services available to one or more servers (tertiary servers) and each of the tertiary servers will make these e-services available to a client."

[53] *DDR Holdings v. Hotels.com*, 773 F.3d 1245 (Fed. Cir. 2014) (Invention directed towards generating a composite web page that combined certain aspects of a host website with information from a third-party merchant was eligible for patenting because the invention addressed an important challenge (*i.e.*, retaining website visitors through the use of computer technology).); *KlausTech, Inc. v. Admob, Inc.*, Case. No. 10-cv-05899 Dkt. No.145 at 5 (N.D. Cal. Aug. 31, 2015) (Upholding the validity of an internet advertising patent that "employs a new approach to control and monitor the display of advertisement on Internet browsers and seeks to solve technical problems that do not exist in the conventional advertising realm."); *Mirror World Techs. LLC v. Apple Inc., et al.*, Case No. 13-cv-419 Dkt. No. 346 at 18 (E.D. Tex. July 7, 2015) (Upholding the patent eligibility of claims where "the invention is a method whereby a computer system organizes every data unit that it receives or generates chronologically with time stamps.").

[54] *Advanced Marketing Sys., LLC v. CVS Pharmacy, Inc.*, Case No. 15-cv-00134 Dkt. No. 77 at 10 (E.D. Tex. Nov. 19, 2015) (Order Adopted at Dkt. No. 95 January 25, 2016) (Denying without prejudice Defendants' motion to dismiss patents directed to discount coupons: "The presence of these structures counsels away from summarily concluding that the asserted claims are directed to an abstract idea.").

Id., col. 20:58-62. This allows the host web site to display the third-party merchant's product while still retaining its visitor traffic. Further, the '345 patent discloses methods for enabling content from a first server to be related to content from a second server and present the aggregated content on a single webpage in a seamless manner. "The idea is to allow e-commerce and e-services to be displayed on a single web page although they come from two different locations." '345 patent, col. 19:44-47.

84. The '345 patent discloses methods that are directed to challenges particular to the internet (i.e., retaining web site visitors). The patent's claims did not merely address the performance of a business practice known from the pre-internet world and require it to be performed on the internet. Instead, the claimed solutions are necessarily rooted in computer technology and are directed to overcoming a problem specifically arising in the realm of computer networks.

85. Microsoft Corporation, in a 2009 patent application that cites the '345 patent as relevant prior art, describes the internet as "disruptive technologies" that create unique problems arising from the internet displaying content in two-dimensional space.

> [I]mages and inventory are represented in a two-dimensional manner, which ***does not allow a user to fully examine merchandise. Since a two-dimensional interface is presented to the user,*** there can be a learning curve associated with navigating a shopping Internet page since the two-dimensional interface likely differs greatly from an actual brick-and-mortar store. Thus, a shopper is not able to appreciate the goods fully, is limited in an ability to view merchandise, and can lose aspects experienced during traditional shopping.[55]

86. At the time of the inventions claimed in the '345 patent, processing, transmitting, and aggregating third party electronic data in a distributed computing environment presented new and unique issues over the state of the art. As explained in the '345 patent, "products/services cannot be shared among other e-malls or e-shops even within their own network of dynamic e-shops at the e-mall." '345 patent, col. 1:43-45.[56]

[55] U.S. Patent App. 12/406,903 at ¶ 4 (emphasis added).

[56] *See also* U.S. Patent App. 09/947,866 at ¶ 7 (This patent application, assigned to IBM, filed September 6, 2001, and cited on the face of the '345 patent discusses limitations in existing

87. Although the methods taught in the '345 patent have been adopted by leading businesses today, at the time of invention, the technologies taught in the '345 patent claims were innovative and novel. "Currently, dynamic e-mall will not allow the creation of specialized e-shops that can sell their products/services in conjunction with similar products/services from others e-shops." '345 patent, col. 1:55-57.

88. Further, the '345 patent claims improve upon the functioning of a computer system by allowing the aggregation of third party supplied data. This improves the security of the computer system and allows it to be more efficient.[57]

89. The '345 patent claims are not directed to a "method of organizing human activity," "fundamental economic practice long prevalent in our system of commerce," or "a building block of the modern economy." Instead, they are limited to a concretely circumscribed set of methods for retrieving the third-party-supplied content comprising first objects describing a product or service, wherein retrieving is from a third-party-hosting server, said retrieving is performed by the server computer.

90. The '345 patent claims are not directed at the broad concept/idea of "content management." Instead, they are limited to a concretely circumscribed set of methods for retrieving the third-party-supplied content comprising first objects describing a product or service, wherein retrieving is from a third-party-hosting server. These methods are technologies unique to the internet age. Intel, in U.S. Patent No. 6,070,176 (cited on the face of the '345 patent), identified problems unique to internet based systems for data retrieval.

> Web technology still has numerous shortcomings. . . Web documents commonly reference other Web documents using hypertext links. . . . With Web technology of the prior art, the user generally receives no explicit information regarding the relationships between Web documents. . . . One problem with this method of

systems "[i]n addition, when retrieving web content from numerous different locations, searching, mining, analyzing, and/or archiving the web content can be a time consuming task.").

[57] *See e.g.*, *Gonzalez v. InfoStream Group*, *Inc.*, Case. No. 2-14-cv-00906, Dkt. No. 160 at 7 (E.D. Tex. Feb. 6, 2016) (Finding claims that recite steps for "'gathering' one type of data and 'producing' a 'label.' 'Gathering' data may describe an abstract idea, but 'producing' a 'label' based on that data does not describe an abstract idea.").

> displaying search results is that documents with little or no relevance to the user's objective are often retrieved in a search.[58]

91. The inventive concepts claimed in the ’345 patent are technological, not "entrepreneurial." For example, retrieving content from a third-party hosted server is a specific, concrete solution to the technological problem of transferring information from a third party for display on a webpage.

92. The ‘345 patent claims require the use of a "guiding means" for use in identifying third party content.[59]

93. The ‘345 patent claims are directed toward a solution rooted in computer technology and use technology unique to computers and computer networking to overcome a problem specifically arising in the realm of web content management. For example, claims of the ’345 patent require hosting on the server computer said third-party-supplied content, said hosting comprises reading said third-party supplied content and making said third-party supplied content available for access by the user—a result that overrides the routine and conventional sequence of events in electronic communications, even electronic communications.

94. The preemptive effect of the claims of the ‘345 patent are concretely circumscribed by specific limitations. For example, claim 1 of the ‘345 patent requires:

> A method of providing a plurality of contents to a user of a client computer system, the method comprising the steps of:
>
> providing a server computer;
>
> retrieving the third-party-supplied content comprising first objects describing a product or service, wherein retrieving is from a third-party-hosting server, said retrieving is performed by the server computer;
>
> hosting on the server computer said third-party-supplied content, said hosting comprises reading said third-party supplied content and making said third-party supplied content available for access by the user;

[58] U.S. Patent No. 6,070,176, col. 1:23-56.

[59] Patent claims addressing gathering and/or identifying content using a guiding means have been found patent eligible. *See Gonzalez v. InfoStream Group, Inc.*, Case. No. 2-14-cv-00906, Dkt. No. 160 at 8 (February 6, 2016 E.D. Tex.) ("The ‘guiding’ limitation, however, describes a more specific and concrete way of processing information. Many ways of gathering information exist besides obtaining it by ‘guiding’ a subscriber.").

> transmitting a web page for display on the client computer system in response to a request from the client computer system, the web page comprising the third-party-supplied content;
>
> selecting guiding means from said third-party-supplied content for use in identifying related second content;
>
> identifying the related second content using the guiding means, wherein the related second content comprises an object that is related to an object within the first objects of the third-party-supplied content;
>
> including the second content in the web page to form a second web page, said including is performed by the server computer; and
>
> sending the second web page to the client computer system for display on the client computer system with the web page previously transmitted.

95. The ‘345 patent does not attempt to preempt every application of the idea of managing web content transmitted over a computer network, or even the idea of managing web content retrieved from a third-party server.

96. The ‘345 patent does not preempt the field of web content management systems, or prevent use of alternative third-party web content management systems. For example, the ’345 patent includes inventive elements—embodied in specific claim limitations—that concretely circumscribe the patented invention and greatly limit its breadth. These inventive elements are not necessary or obvious tools for achieving content aggregation from third parties, and they ensure that the claims do not preempt other techniques for web content management. Further, the ninety-three patents cited in the prosecution history include numerous systems that are not preempted by the claims of the ‘345 patent.

97. The ‘345 patent does not claim, or attempt to preempt, the performance of an abstract business practice on the internet or using a conventional computer.

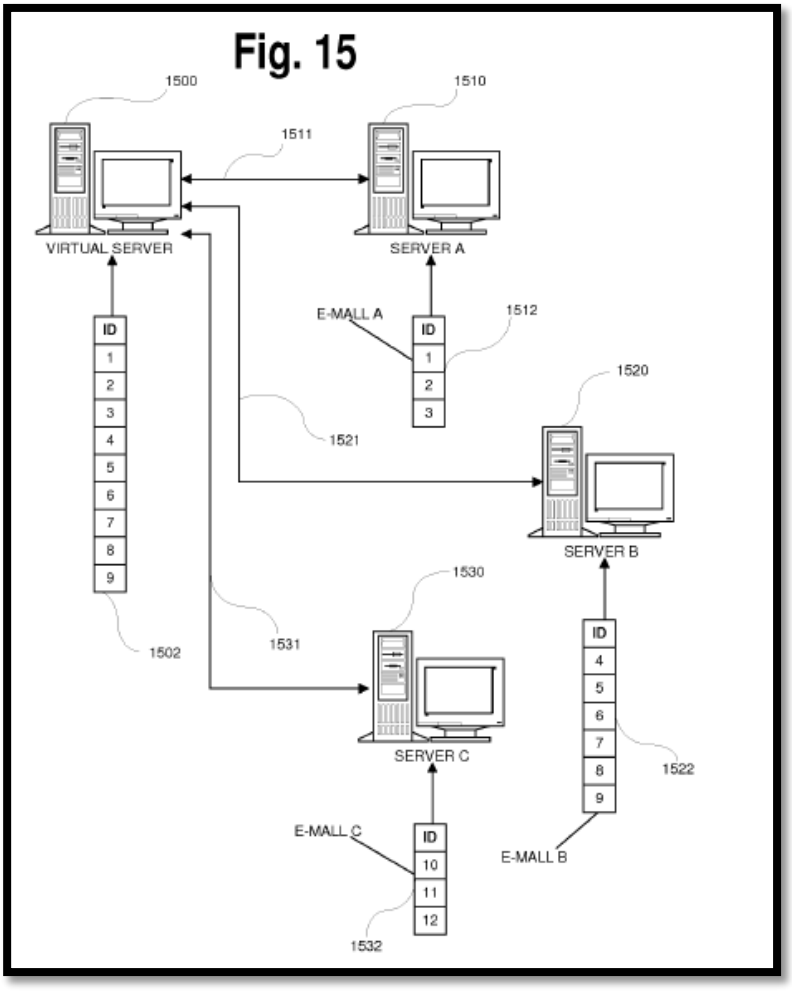
98. The claimed subject matter of the ‘345 patent is not a pre-existing but undiscovered algorithm.

99. The ’345 patent claims require the use of a server computer, client computer system, and a computer network.

100. The methods claimed in the ‘345 patent were not a longstanding or fundamental economic practice at the time of the patented inventions. Nor were they fundamental principles

in ubiquitous use on the internet or computers in general. For example, the '345 patent specification describes limitations in the existing systems at the time the inventions disclosed in the '345 patent were conceived. "Currently, dynamic e-mail will not allow the creation of specialized e-shops that can sell their products/services in conjunction with similar products/services from others e-shops." '345 patent, col. 1:54-59.

101. One or more claims of the '345 patent require a specific configuration of electronic devices, a network configuration, and the web servers to retrieve third party supplied content. These are meaningful limitations that tie the claimed methods and systems to specific machines. For example, the below diagram from the '345 patent illustrates a specific configuration of hardware disclosed in the patent.



'345 patent, Fig. 15.

102. One or more of the '345 patent claims require a server to use the guiding means (e.g. keywords, content page's objects, content page's hidden elements, etc.) of first content and locate second content based on the guiding means; this is in the realm of the computer network/Internet to enable one or more contents located at different locations and be associated based on their objects and the associated contents displayed together on a webpage. This cannot be done by hand or by mind.

2. U.S. Patent No. 8,065,386

103. U.S. Patent No. 8,065,386 ("the '386 patent") entitled, *Method of Presenting Contents Based on a Common Relationship*, was filed on October 30, 2007, and claims priority to December 20, 2001. UnoWeb is the owner by assignment of the '386 patent. A true and correct copy of the '386 patent is attached hereto as Exhibit B. The '386 patent claims specific systems for providing requested contents and unrequested associated contents to a client computer system wherein a website server receives a request from the client computer system to send a web page for display on the client computer and a provider examines the requested web page's content, identifies related content, and includes the related content in the web page.

104. The '386 patent claims a technical solution to a problem unique to computer networks – causing the server computer to provide unrequested content to a client computer based on indexing content in a database table.

105. The inventions disclosed in the '386 patent are directed to solving problems unique to e-commerce. For example, the '386 patent specification describes existing systems "will not allow the creation of specialized e-shops that can sell their products/services in conjunction with similar products/services from others e-shops." '386 patent, col. 1:57-60.

106. The '386 patent discloses a specific system for organizing data gathered from third party servers and then relating that data to second gathered data and then sending the

second data for display on a webpage. Such gathering, indexing, and generating of content has been found patent eligible.[60]

107. The '386 patent addresses a problem faced by web site owners who had a need for providing first content and associated second content to a user of a client computer system. The provider's server receives a request from the client computer system to send a first object/content in an HTML page for display on the client computer system. The provider examines the requested first object and includes a related second object/content in the HTML page. The '386 patent is directed towards generating a composite web page that combines certain aspects of a host website with information from a third-party merchant. Claims that are similar to the '386 patent claims have been found patent eligible.[61]

108. One or more claims of the '386 patent discloses the use of keyword indexing to relate first content with unrequested second content. A patent assigned to Amazon that references the parent application of the '386 patent describes the need to identify content based on keywords as arising from problems particular to the internet.

> Because of the large number of search results, and the correspondingly large number of pages displaying those search results, a user may have difficulty finding

[60] *See e.g.*, *Mirror World Techs. LLC v. Apple Inc., et al*, Case No. 13-cv-419, Dkt. No. 346 at 18 (E.D. Tex. July 7, 2015) (Upholding the patent eligibility of claims where "the invention is a method whereby a computer system organizes every data unit that it receives or generates chronologically with time stamps."); *Motio Inc. v. BSP Software LLC et al*, Case No. 12-cv-647, Dkt. No. 226 at 10 (E.D. Tex. Jan. 4, 2016) (upholding the patent eligibility of a patent directed at a method for providing version control using an automated agent).

[61] *DDR Holdings v. Hotels.com*, 773 F.3d 1245 (Fed. Cir. 2014) (Invention directed towards generating a composite web page that combined certain aspects of a host website with information from a third-party merchant was eligible for patenting because the invention addressed an important challenge (*i.e.*, retaining website visitors through the use of computer technology).); *KlausTech, Inc. v. Admob, Inc.*, Case. No. 10-cv-05899, Dkt. No.145 at 5 (N.D. Cal. Aug. 31, 2015) (Upholding the validity of an internet advertising patent that "employs a new approach to control and monitor the display of advertisement on Internet browsers and seeks to solve technical problems that do not exist in the conventional advertising realm."); *Mirror World Techs. LLC v. Apple Inc., et al*, Case No. 13-cv-419, Dkt. No. 346 at 18 (E.D. Tex. July 7, 2015) (Upholding the patent eligibility of claims where "the invention is a method whereby a computer system organizes every data unit that it receives or generates chronologically with time stamps.").

> websites of interest to the user, particularly if the relevant website is displayed on a fourth, fifth, or even later page of search results.[62]

109. The '386 patent contains limitations including "indexing" via the "server computer," "forming a data base table," "hosted at the third-party's server," and "encoded information," that are specific to specialized computer systems and require more than a general purpose computer.

110. At the time of the inventions claimed in the '386 patent, processing, transmitting, and identifying content to provide to a webpage presented new and unique issues over the state of the art. As explained in the '386 patent: "The e-commerce and the e-services may or may not reside at the same location. They can be at a single or multiple URL addresses, folders, databases or database tables." '386 patent, col. 19:20-22.

111. Although the methods taught in the '386 patent have been adopted by leading businesses today, at the time of invention, the technologies taught in the '386 patent claims were innovative and novel. "Currently, dynamic e-mall will not allow the creation of specialized e-shops that can sell their products/services in conjunction with similar products/services from others e-shops." '386 patent, col. 1:57-60.

112. Further, the inventions claimed in the '386 patent improve upon the functioning of a computer system by using key word indexing to identify second content and displaying the second content to a user. This improves the functioning of the computer system by more efficiently identifying relevant second content and reducing computational requests for relevant content.

113. The '386 patent claims are not directed to a "method of organizing human activity," "fundamental economic practice long prevalent in our system of commerce," or "a building block of the modern economy." Instead, they are limited to a concretely circumscribed set of methods for retrieving a second piece of content that is on a third-party web server using a keyword index.

[62] U.S. Patent No. 9,141,713 (this patent, assigned to Amazon Technologies, Inc., references UnoWeb Patent App. 10/029,073 as relevant prior art).

114. The ’386 patent claims are not directed at the broad concept/idea of “content management.” Instead, they are limited to a concretely circumscribed set of methods for retrieving the third-party-supplied content, stored on a third-party server, using a key word index stored in a database table. These systems are technologies unique to the internet age.

115. The inventive concepts claimed in the ’386 patent are technological, not “entrepreneurial.” For example, identifying content from a third-party hosted server is a specific, concrete solution to the technological problem of transferring information from a third party for display on a webpage. The '386 patent solves a problem of content dissemination on the internet by enabling third-party hosted content to be displayed on client computers when the client computer is displaying related content. This enables website visitors to access content that is hosted by a third party server without searching the network and leaving the webpage.

116. The ‘386 patent claims are directed toward a solution rooted in computer technology and use technology unique to computers and computer networking to overcome a problem specifically arising in the realm of web content management. For example, claims of the ’386 patent require hosting on the server computer said third-party-supplied content, said hosting comprises reading said third-party supplied content, making said third-party supplied content available for access by the user, identifying a second content by finding a relationship between the second content and the object selected —a result that overrides the routine and conventional sequence of events in electronic communications.

117. The preemptive effect of the claims of the ‘386 patent are concretely circumscribed by specific limitations. For example, claim 4 of the ‘386 patent requires:

> A computer program product having executable instruction codes that are stored on a non-transitory computer-readable medium on a server computer, the instruction codes when executed by the server computer causes the server computer to provide unrequested content to a client computer and perform steps comprising:
>
> receiving a third-party-supplied first content, wherein said receiving is performed by the server computer;
>
> incorporating said third-party-supplied first content into a host on the server computer, wherein said incorporating is done by the server computer;

> said third-party-supplied first content comprising a plurality of objects, each object in the plurality of objects selected from the group consisting of text, image, form element, audio, video, link and key word;
>
> indexing said plurality of objects, wherein the indexing is performed by the server computer;
>
> forming a database table containing objects in the plurality of objects, wherein forming is performed by the server computer;
>
> accessing the database table and selecting an object in the plurality of objects using the index, wherein selecting is performed by the server computer;
>
> identifying a second content by finding a relationship between the second content and the object selected, wherein identifying is performed by the server computer; and
>
> sending the second content for receipt and display on the client computer, wherein sending is performed by the server computer.

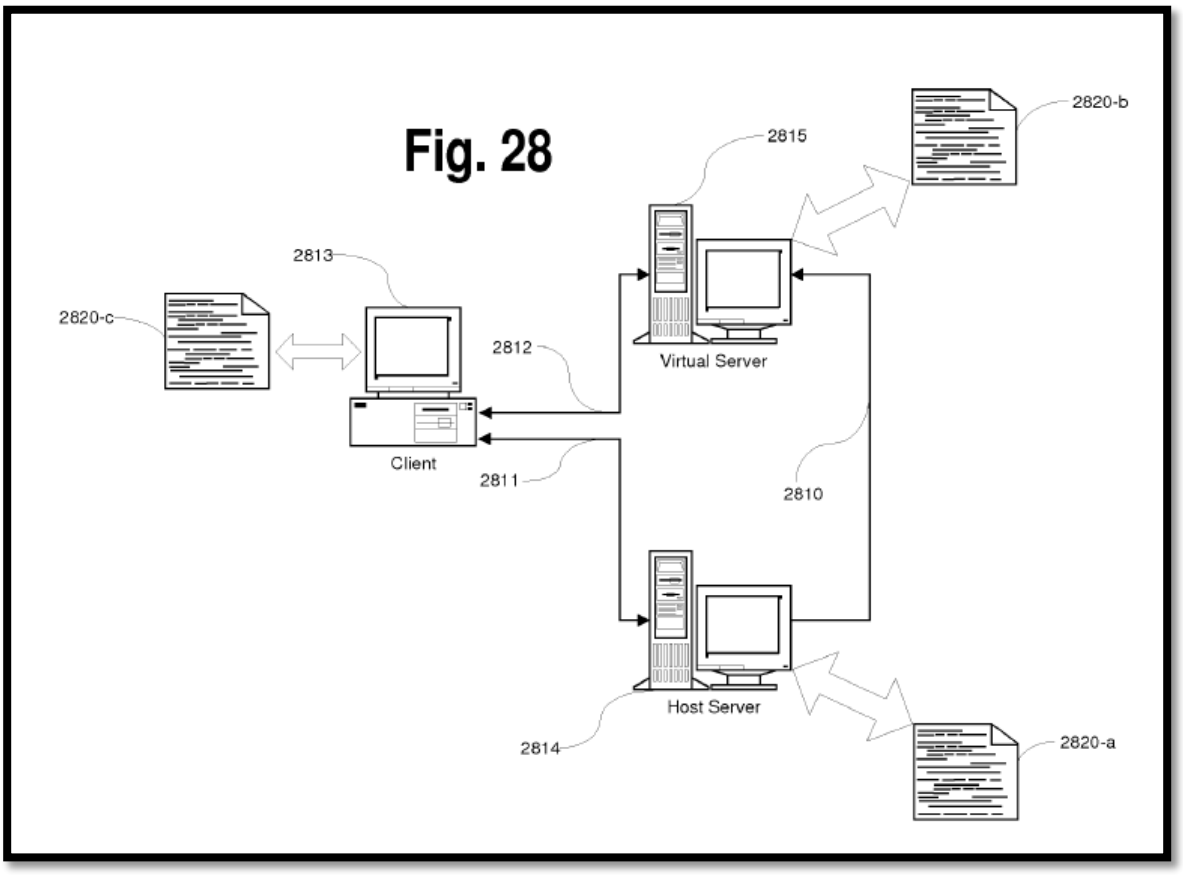
118. The ‘386 patent does not attempt to preempt every application of the idea of managing web content transmitted over a computer network, or even the idea of managing web content retrieved from a third-party server. The eighty-seven patents cited in the prosecution history of the ‘386 patent provide numerous examples of identifying and including related content in a request web page that are not preempted by the claims in the ‘386 patent.

119. The ‘386 patent does not preempt the field of web content management systems, or prevent use of alternative third-party web content management systems. For example, the ’386 patent includes inventive elements—embodied in specific claim limitations—that concretely circumscribe the patented invention and greatly limit its breadth. These inventive elements are not necessary or obvious tools for achieving content aggregation from third parties, and they ensure that the claims do not preempt other techniques for web content management.

120. The ‘386 patent does not claim, or attempt to preempt, the performance of an abstract business practice on the internet or using a conventional computer. Nor is the claimed subject matter of the ‘386 patent a pre-existing but undiscovered algorithm.

121. The systems claimed in the ‘386 patent were not a longstanding or fundamental economic practice at the time of the patented inventions. Nor were they fundamental principles in ubiquitous use on the internet or computers in general. One or more claims of the ’386 patent require a specific configuration of electronic devices, a network configuration, and the web

servers to retrieve third party supplied content. These are meaningful limitations that tie the claimed methods and systems to specific machines. For example, the below diagram from the '386 patent illustrates a specific configuration of hardware disclosed in the patent.



'386 patent, Fig. 28.

3. U.S. Patent No. 8,307,047

122. U.S. Patent No. 8,307,047 ("the '047 patent") entitled, *Method of a First Host of First Content Retrieving Second Content from a Second Host and Presenting Both Contents to a User*, was filed on October 30, 2007, and claims priority to December 20, 2001. UnoWeb is the owner by assignment of the '047 patent. A true and correct copy of the '047 patent is attached hereto as Exhibit C. The '047 patent claims specific systems for managing a plurality of content hosts on a server wherein the hosted content is combined and displayed together to website users.

123. The '047 patent claims a technical solution to a problem unique to computer networks – a program of instructions executable by the server to perform method steps for

managing a plurality of content hosts on the server. The '047 patent is directed at addressing the need for an easy and affordable worldwide e-commerce solution where a seller can have its goods and services sold without the expertise or the expenses that existing e-commerce solutions required.

124. The '047 patent addressed a problem faced by web site owners who had a need for providing internet users with content from a one or more data stores located at a first and second server in a seamless manner. Specifically, the '047 patent describes requesting a first dynamic content hosted by a first host, requesting a second dynamic content hosted by a second host, and displaying the first dynamic content and the second dynamic content to a user accessing the second host as if the first dynamic content originated from the second host. Further, the '047 patent discloses the use of a server to control a web client's interaction with the first dynamic content by causing the second host to retrieve the first dynamic content from the first host and control interfacing with the web client accessing the first dynamic content and the second dynamic content through the second host. Like claims that have been found to constitute patent eligible subject matter, the inventions of the '047 patent are directed towards generating a composite web page that combine data from a first and second server and enable the server generating the composite webpage to maintain web client interaction that is accessing information from a third-party merchant.[63]

[63] *DDR Holdings v. Hotels.com*, 773 F.3d 1245 (Fed. Cir. 2014) (Invention directed towards generating a composite web page that combined certain aspects of a host website with information from a third-party merchant was eligible for patenting because the invention addressed an important challenge (*i.e.*, retaining website visitors through the use of computer technology).); *KlausTech, Inc. v. Admob, Inc.*, Case. No. 10-cv-05899 Dkt. No.145 at 5 (N.D. Cal. Aug. 31, 2015) (Upholding the validity of an internet advertising patent that "employs a new approach to control and monitor the display of advertisement on Internet browsers and seeks to solve technical problems that do not exist in the conventional advertising realm."); *Mirror World Techs. LLC v. Apple Inc., et al.*, Case No. 13-cv-419 Dkt. No. 346 at 18 (E.D. Tex. July 7, 2015) (Upholding the patent eligibility of claims where "the invention is a method whereby a computer system organizes every data unit that it receives or generates chronologically with time stamps.").

125. The ‘047 patent teaches a system that transforms data from a first and second server (or from a first and a second host on the same physical server) to generate a wholly new web page.

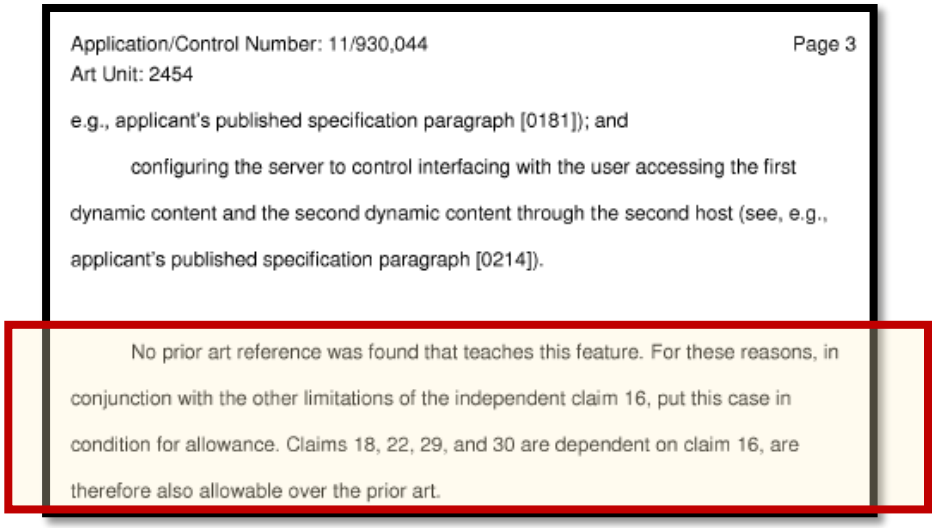
126. The ‘047 patent is directed toward transforming data from two or more servers (or from a first and second host on the same physical server) to create specific data structures that are displayed to a web client.[64] The generating of data structures includes the generating of a web page that includes data from a first and second server. The ‘047 patent teaches a system that enables a single resource infrastructure to be used by a broad base of users on the internet (e.g., buyers and sellers of e-commerce products). “There are needs for easy and affordable worldwide e-commerce solutions where seller can have their goods and services sold without the expertise or the expenses that today's e-commerce requires.” Patent '047, col. 1:27-32.

127. The ‘047 patent discloses a system that is directed toward the problem of web site operators needing a mechanism to make their content available on a variety of web sites without having to develop separate web sites and separate e-commerce infrastructure. The systems disclose a solution that prevents the need to create independent web sites and thus prevent internet users being lured away by third-party merchants. The methods disclose a system to retain web site visitors by processing data from third-party servers to generate a composite web page. “The Internet has tremendous potential with its worldwide reach; also, there are a lot of challenges and opportunities. . . . Today’s e-commerce requires solutions where seller can have their products/services available to a broad base of buyers, also available to other e-shops.” ‘047 patent, col. 1:27-28 and 1:61-63. Instead of transporting a web site visitor away from an owner's, “[i]t is the object of this invention to demonstrate a virtual electronic shopping mall where on-line users can create and update e-malls which in turn offers others the ability to host

[64] *Advanced Marketing Sys., LLC v. CVS Pharmacy, Inc.*, Case No. 15-cv-00134 Dkt. No. 77 at 10 (E.D. Tex. Nov. 19, 2015) (Order Adopted at Dkt. No. 95 January 25, 2016) (Denying without prejudice Defendants’ motion to dismiss patents directed to discount coupons: “The presence of these structures counsels away from summarily concluding that the asserted claims are directed to an abstract idea.”).

e-shops and web sites offering products/services." *Id*., col. 2:14-17. This allows the virtual electronic network environment to make products and service available to a broader base for both, sellers and buyers.

128. The '047 patent discloses a system that addresses the need for configuring a server to control a web client's interaction with dynamic content provided from a first server and causing a second server to gather content from the first server and configuring the server to control interfacing with the web client accessing the content from the first server and content the second server through the second server. The U.S. Patent and Trademark Office confirmed the patentability of the claims in the '047 patent over 117 prior art references and concluded:



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Art Unit: 2454

e.g., applicant's published specification paragraph [0181]); and

configuring the server to control interfacing with the user accessing the first dynamic content and the second dynamic content through the second host (see, e.g., applicant's published specification paragraph [0214]).

No prior art reference was found that teaches this feature. For these reasons, in conjunction with the other limitations of the independent claim 16, put this case in condition for allowance. Claims 18, 22, 29, and 30 are dependent on claim 16, are therefore also allowable over the prior art.

U.S. Patent App. 11/930,044 Notice of Allowance at 3 (July 19, 2012).

129. The '047 patent discloses methods that are directed to challenges particular to the internet (i.e., enabling content aggregation from multiple servers or multiple content hosts on a single physical server) and managing user interaction with content from an external server. The patent's claims did not merely address the performance of a business practice known from the pre-internet world and require it to be performed on the internet. Instead, the claimed solutions are necessarily rooted in computer technology and are directed to overcoming a problem specifically arising in the realm of computer networks. For example, configuring a server to control interfacing with a user accessing dynamic content from a first and second server and

configuring the server to maintain user interaction with dynamic content provided by the first server at the second server is directed at solving a problem unique to the internet.

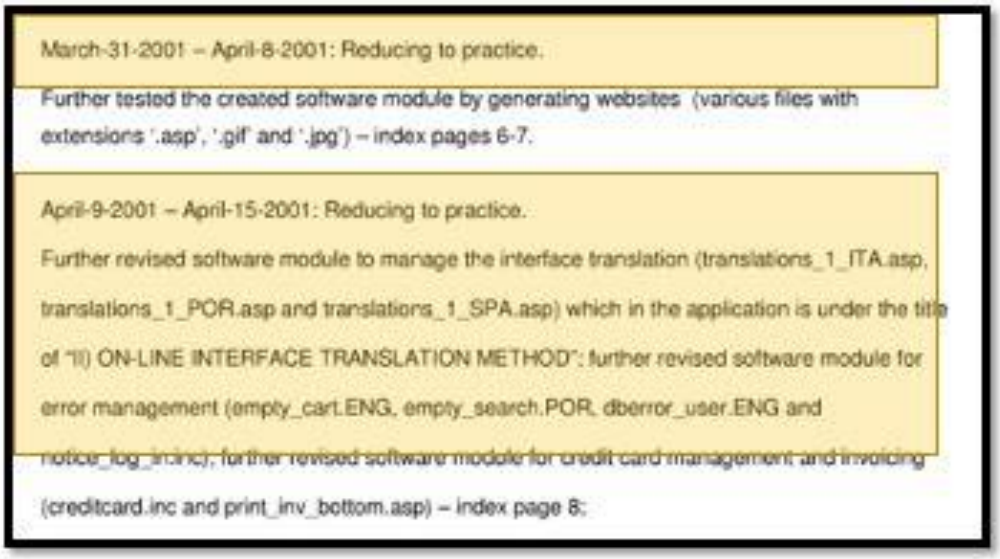
130. AT&T Corporation, in a patent filed in 2008 (which cites the '047 patent as relevant prior art), describes virtual network communication as creating a unique "networked virtual environment," which created unique problems relating to the "software-generated" nature of the internet environment.

> ***A networked virtual world is a software-generated environment*** that allows network-connected users to share real-time interactions with each other. Networked virtual environments are used for collaborative design and engineering, massively multi-player on-line role-playing games, distance learning, and three-dimensional simulations such as "Second Life."[65]

131. At the time of the inventions claimed in the '047 patent were conceived, requesting, displaying, and configuring data from third party servers in a distributed computing environment presented new and unique issues over the state of the art. As explained in the '047 patent: "Buyers . . . need a solution where they will have a broad selection without having to go to many different e-shops to find where they're looking for." '047 patent, col. 2:1-3.

132. From inception, the inventions disclosed in the '047 patent were directed at solving a technological problem relating to the internet using technological solutions. Mr. Almeida, during the process of reducing to practice the inventions disclosed in the '047 patent, described the process as involving specific internet based technologies.

[65] U.S. Patent No. 8,560,955.


March-31-2001 – April-8-2001: Reducing to practice.

Further tested the created software module by generating websites (various files with extensions '.asp', '.gif' and '.jpg') – index pages 6-7.

April-9-2001 – April-15-2001: Reducing to practice.

Further revised software module to manage the interface translation (translations_1_ITA.asp, translations_1_POR.asp and translations_1_SPA.asp) which in the application is under the title of "II) ON-LINE INTERFACE TRANSLATION METHOD"; further revised software module for error management (empty_cart.ENG, empty_search.POR, dberror_user.ENG and notice_log_in.inc); further revised software module for credit card management and invoicing (creditcard.inc and print_inv_bottom.asp) – index page 8;

U.S. Patent App. 11/930,044, Inventor Declaration at 7 (February 28, 2011) (yellow highlighting indicating that from conception the inventions disclosed in the UnoWeb Web Content Management patents were directed to technological solutions to technological problems)

133. Although the methods taught in the '047 patent have been adopted by leading businesses today, at the time of invention, the technologies taught in the '047 patent claims were innovative and novel. "Currently, dynamic e-mall will not allow the creation of specialized e-shops that can sell their products/services in conjunction with similar products/services from others e-shops." '047 patent, col. 1:57-60.

134. Further, the '047 patent claims improve upon the functioning of a computer system by allowing the gathering of third party supplied data and configuring a web server to maintain user interaction with dynamic content from a first server at the second web server. This improves the security of the computer system and allows it to be more efficient.[66]

135. The '047 patent claims are not directed to a "method of organizing human activity," "fundamental economic practice long prevalent in our system of commerce," or "a building block of the modern economy." Instead, they are limited to a concretely circumscribed set of methods for requesting third-party-supplied content comprising dynamic content hosted on

[66] *See e.g., Gonzalez v. InfoStream Group, Inc.*, Case. No. 2:14-cv-00906, Dkt. No. 160 at 7 (E.D. Tex. Feb. 6, 2016) (Finding claims that recite steps for "'gathering' one type of data and 'producing' a 'label.' 'Gathering' data may describe an abstract idea, but 'producing' a 'label' based on that data does not describe an abstract idea.").

a web server, wherein requesting is from a third-party-hosting server, said requesting is performed by the server computer. Further, the '047 patent claims control interfacing with the web client that accesses the dynamic content that is requested from a third-party server.

136. The '047 patent claims are not directed at the broad concept/idea of "content management." Instead, they are limited to a concretely circumscribed set of methods for requesting the third-party-supplied content wherein retrieving is from a third-party-hosting server. These methods are technologies unique to the internet age. Microsoft, in U.S. Patent No. 6,278,448 (cited on the face of the '047 patent), identified problems unique to internet based systems for data retrieval and content aggregation.

> This type of representation does not scale well to the variety of resources on the World Wide Web, since it is limited in size, strict in form factor, and static (unchanging). The invention described here is designed to provide a way for a GUI desktop to more adequately provide 'entry points' to Internet resources (primarily, HTML-based Web pages).[67]

137. The inventive concepts claimed in the '047 patent are technological, not "entrepreneurial." For example, requesting content from a third-party hosted server is a specific, concrete solution to the technological problem of transferring information from a third party for display on a webpage and managing internet user interaction with the requested data.

138. The '047 patent claims are directed toward a solution rooted in computer technology and use technology unique to computers and computer networking to overcome a problem specifically arising in the realm of requesting content from third-party web servers. For example, the claims of the '047 patent require requesting and hosting on the server computer said third-party-supplied content, said hosting comprises requesting said third-party supplied content and making said third-party supplied content available for access by the user and configuring the web server to control interfacing with the third-party supplied content — a result that overrides the routine and conventional sequence of events in electronic communications, even electronic communications.

[67] U.S. Patent No. 6,278,448 at col. 1:21-27.

139. The preemptive effect of the claims of the ‘047 patent are concretely circumscribed by specific limitations. For example, claim 1 of the ‘047 patent requires:

> A program storage device comprising a non-transitory memory storage medium readable by a server, tangibly embodying a program of instructions executable by the server to perform method steps for managing a plurality of content hosts on the server, said method steps comprising the steps of:
>
> requesting a first dynamic content hosted by a first host, wherein requesting is performed by the server, and wherein said first host is selected from the group consisting of an e-mall, e-service, e-portal, satellite e-mall, e-shop, e-distributor and web site;
>
> requesting a second dynamic content hosted by a second host, wherein requesting is performed by the server, and wherein said second host is selected from the group consisting of an e-mall, e-service, e-portal, satellite e-mall, e-shop, e-distributor and web site;
>
> displaying the first dynamic content and the second dynamic content to a user accessing the second host as if the first dynamic content originated from the second host;
>
> configuring the server to control the user's interaction with the first dynamic content by causing the second host to fetch the first dynamic content from the first host;
>
> configuring the server to control interfacing with the user accessing the first dynamic content and the second dynamic content through the second host; and
>
> configuring the server to maintain user interaction with the first dynamic content at the second host.

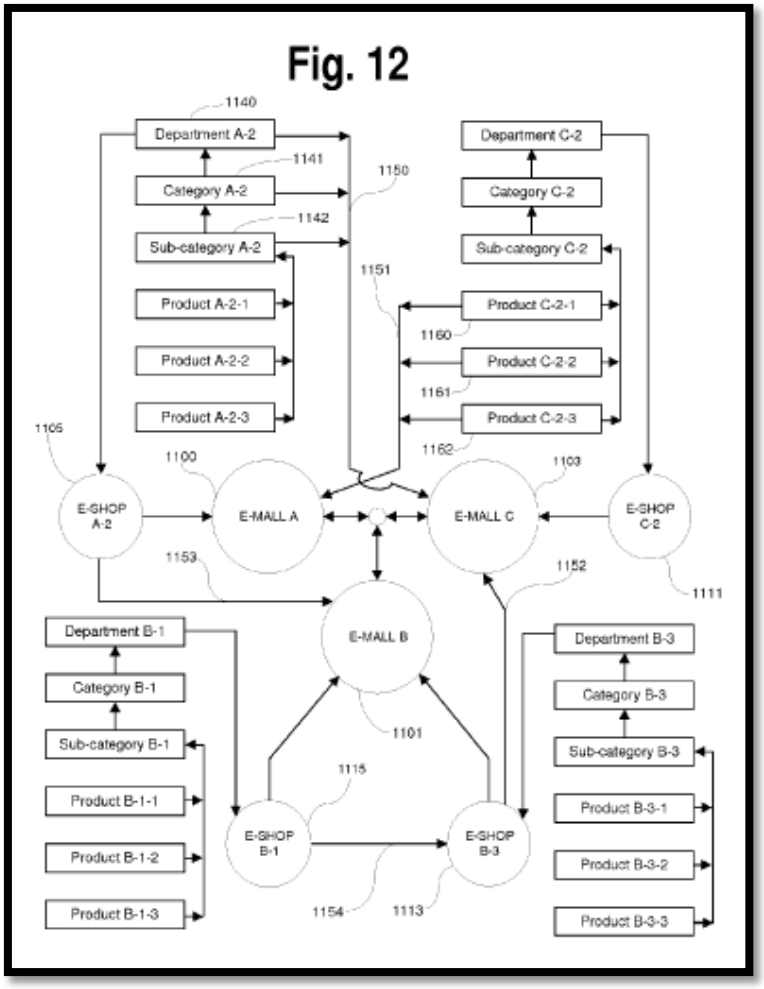
140. The ‘047 patent does not attempt to preempt every application of the idea of managing web content transmitted over a computer network, or even the idea of managing web content retrieved from a third-party server.

141. The ‘047 patent does not preempt the field of web content management systems, or prevent use of alternative third-party web content management systems. For example, the ’047 patent includes inventive elements—embodied in specific claim limitations—that concretely circumscribe the patented invention and greatly limit its breadth. These inventive elements are not necessary or obvious tools for achieving content aggregation from third parties, and they ensure that the claims do not preempt other techniques for web content management. Further, the one hundred and eight patents cited in the prosecution history include numerous systems that are not preempted by the claims of the ‘047 patent.

142. The ‘047 patent does not claim, or attempt to preempt, the performance of an abstract business practice on the internet or using a conventional computer. Nor is the claimed subject matter of the ‘047 patent a pre-existing but undiscovered algorithm. And, the ’047 patent claims require the use of a computer system.

143. The methods claimed in the ‘047 patent were not a longstanding or fundamental economic practice at the time of the patented inventions. Nor were they fundamental principles in ubiquitous use on the internet or computers in general. For example, the ‘047 patent specification describes limitations in the existing systems at the time the inventions disclosed in the ‘047 patent were conceived. “Currently, dynamic e-mail will not allow the creation of specialized e-shops that can sell their products/services in conjunction with similar products/services from others e-shops.” ‘047 patent, col. 1:57-60.

144. One or more claims of the ’047 patent require a specific configuration of electronic devices, a network configuration, and the web servers to retrieve third party supplied content. These are meaningful limitations that tie the claimed methods and systems to specific machines. For example, the below diagram from the ‘047 patent illustrates a specific configuration of hardware disclosed in the patent.



'047 patent, Fig. 12.

145. The '047 patent claims require a server to request dynamic content hosted on a first host, display dynamic content from a first host and second host on a webpage, and configuring the server to control interacting with the first and second dynamic content. This cannot be done by hand or by mind.

4. U.S. Patent No. 7,730,083

146. U.S. Patent No. 7,730,083 ("the '083 patent") entitled, *Method of Using a Code to Track User Access to Content,* was filed on October 31, 2007, and claims priority to December 20, 2001. UnoWeb is the owner by assignment of the '083 patent. A true and correct copy of the '083 patent is attached hereto as Exhibit D. The '083 patent claims specific methods for

tracking user internet surfing across a plurality of content hosts using a surf code reference and providing users with access to a list of internet content they had previously viewed.

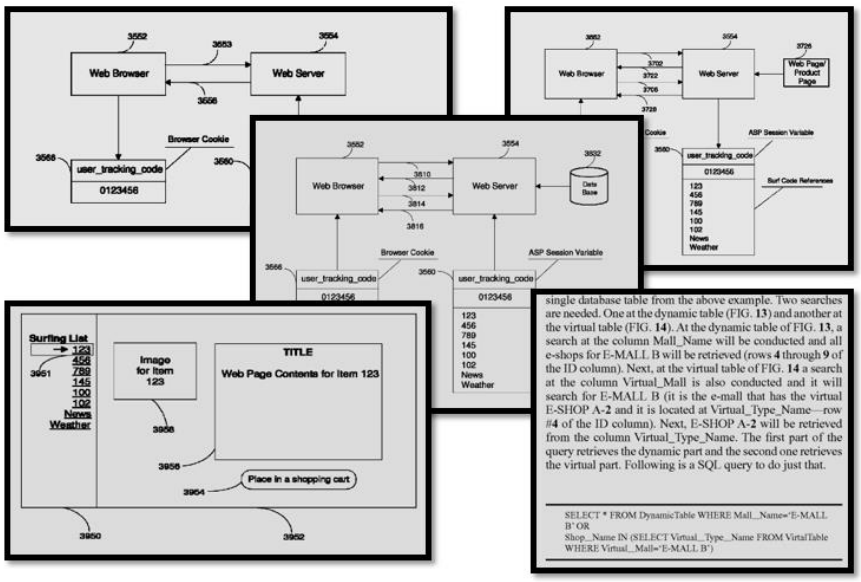
147. The ‘083 patent claims a technical solution to a problem unique to computer networks – tracking an internet user’s access to content gathered from multiple web servers and providing the internet user with a list of content previously viewed by the user.

148. A unique feature of the internet is providing users with access to content aggregated from different web servers. The content in some instances might be presented in composite web pages. There was a need to track user access to specific pieces of content that, although displayed on a single web page, was aggregated from different web servers. “From this scenario it is clear that there is a need for a mechanism to track and keep the user surfing experience.” ‘083 patent, col. 21:55-57.

149. The ‘083 patent is directed at solving a problem unique to the internet – the tracking of internet user access to content aggregated from several hosts and enabling the display of previously accessed content to a user. To accomplish this object, the ‘083 patent proposed technological solutions including the use of a surf code reference that enabled the tracking of a user as content from different hosts is accessed. The patent specification explains that a surf code reference “is used for automatically storing a reference for each information supplied to each client and it forms the surf user-list. Once the user requests his/her surf user-list, the server will use each surf code reference and create the surf user-list and sent it to the user. A surf user-list will only include information that was previously viewed by the user.” ‘083 patent, col. 21:59-65.

150. Further, Claim 7 of the ‘083 patent recites means-plus-function claim limitations governed by 35 U.S.C. § 112(f). The corresponding structure(s) in the ‘083 patent specification includes algorithms that improve the functioning of a computer by improving efficiency: “the web server uses the list just retrieved from session variable 3560 and searches the database.” *See, e.g.,* ‘083 patent cols. 11:4-12:32, 22:4-62, figs. 35-39.

151. The ‘083 patent discloses computer algorithms in the specification. In addition to the structures and algorithms disclosed throughout the specification, these algorithms correspond to the means-plus-function claim limitation in the ‘083 patent. Means-plus-function claims such as Claim 7 in the ‘083 patent are inherently not abstract ideas. Stanford Law Professor Mark Lemley described his analysis: “If the patent is interpreted as a means-plus-function claim, it will be limited to the particular software implementation the patentee actually built or described. Such a narrow, specific claim should not be an unpatentable ‘abstract idea.’” [68]



‘083 patent, Col. 11:35-50, Figs. 35, 37-39.

152. The ‘083 patent addresses a problem faced by web site operators who had a need to track access to internet content that came from multiple web servers. Further, there was a need to allow users to access content that they had viewed even if the content had come from multiple web servers. The ‘083 patent teaches innovative new technologies that are technological solutions to these problems. The solutions include: (1) enabling users to access a virtual server providing a view of content supplied from multiple web servers, [69] (2) assigning a

[68] Eugene Quinn, *The Ramifications of Alice: A Conversation with Mark Lemley*, IPWATCHDOG BLOG, September 4, 2014, http://www.ipwatchdog.com/2014/09/04/the-ramifications-of-alice-a-conversation-with-mark-lemley/id=51023/ (emphasis added).

[69] Like claims that have been found to constitute patent eligible subject matter, the inventions of the ‘083 patent are directed towards generating a composite web page that combined certain

surf code reference to each of the pieces of web content that are accessed by a user, [70] and (3) storing a user list comprising the surf code reference such that a user can subsequently access a list of the web content they had accessed.

153. The '083 patent discloses methods to prevent visitors from being lured away by third-party merchants. The methods disclose a system to retain web site visitors by processing data from various web servers. "[T]hey will have a broad selection without having to go to many different e-shops to find what they're looking for, and also be able to view web pages in their own native language." '083 patent, col. 1:66-2:2. Instead of transporting a web site visitor away from an owner's site, a user is displayed related content from the third-party merchant, "e-services/contents can be retrieved from different server by another server (secondary server) and this secondary server will make any or all of these e-services available to one or more servers (tertiary servers) and each of the tertiary servers will make these e-services available to a client." *Id*., col. 20:60-64. This allows a web site to display content from various web servers without risking the loss of visitor traffic.

154. The '083 patent discloses methods that are directed to challenges particular to the internet (i.e., retaining web site visitors). The patent's claims did not merely address the

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aspects of a host website with information from a third-party merchant. *DDR Holdings v. Hotels.com*, 773 F.3d 1245 (Fed. Cir. 2014) (Invention directed towards generating a composite web page that combined certain aspects of a host website with information from a third-party merchant was eligible for patenting because the invention addressed an important challenge (*i.e.*, retaining website visitors through the use of computer technology).); *KlausTech, Inc. v. Admob, Inc.*, Case. No. 10-cv-05899 Dkt. No.145 at 5 (N.D. Cal. Aug. 31, 2015) (Upholding the validity of an internet advertising patent that "employs a new approach to control and monitor the display of advertisement on Internet browsers and seeks to solve technical problems that do not exist in the conventional advertising realm."); *Mirror World Techs. LLC v. Apple Inc., et al.*, Case No. 13-cv-419 Dkt. No. 346 at 18 (E.D. Tex. July 7, 2015) (Upholding the patent eligibility of claims where "the invention is a method whereby a computer system organizes every data unit that it receives or generates chronologically with time stamps.").

[70] The '083 patent is directed at generating specific data structures. The generation of specific data structures has been found to confer patent eligibility by various courts. *See e.g., Advanced Marketing Sys., LLC v. CVS Pharmacy, Inc.*, Case No. 15-cv-00134 Dkt. No. 77 at 10 (E.D. Tex. Nov. 19, 2015) (Order Adopted at Dkt. No. 95 January 25, 2016) (Denying without prejudice Defendants' motion to dismiss patents directed to discount coupons: "The presence of these structures counsels away from summarily concluding that the asserted claims are directed to an abstract idea.").

performance of a business practice known from the pre-internet world and require it to be performed on the internet. Instead, the claimed solutions are necessarily rooted in computer technology and are directed to overcoming a problem specifically arising in the realm of computer networks. The need to track a user accessing content retrieved from various hosts presented a new challenge. America Online, Inc., in a patent issued in 2000 (that is cited on the face of the '083 patent), describes the challenges presented by tracking user access to content from multiple hosts.

> To many people, the Internet and the World Wide Web (WWW) represent a disorganized space. Many computer users wander from site to site hoping to find content that is of interest. Many uninteresting sites may be visited before a site with information of interest is located. ***Even sites related to one another by a common theme (e.g., shopping) may be difficult to navigate because so many of the sites do not have content that is of interest to the user***. One of the reasons that the task of navigating the Internet, specifically the WWW portion of the Internet, seems daunting is that ***there is no way to pull content from various locations or sites and organize it in a manner meaningful to the individual user.***[71]

155. At the time of the inventions claimed in the '083 patent, processing, transmitting, and aggregating electronic data from various hosts and tracking users' access to specific pieces of content presented new and unique issues over the state of the art. As explained in the '083 patent: "products/services cannot be shared among other e-malls or e-shops even within their own network of dynamic e-shops at the e-mall." '083 patent, col. 1:43-45.[72]

156. Although the methods taught in the '083 patent have been adopted by leading businesses today, at the time of invention, the technologies taught in the '083 patent claims were innovative and novel. "Currently, dynamic e-mall will not allow the creation of specialized e-

[71] U.S. Patent No. 6,014,638, Col. 1:16-28 (emphasis added).

[72] *See also* U.S. Patent App. 09/752,058 at ¶ 6 (This patent application, assigned to Hewlett Packard Development Company, L.P., filed on December 29, 2000 and cited on the face of the '083 patent discusses the rudimentary state of internet navigation and tracking systems in existing technologies "Computer users are increasingly accessing the internet, for entertainment, informational, and work purposes using a variety of computing devices. Accessing and using the internet is often referred to as "surfing the net/web." . . . Bookmarks are essentially short cuts that allow a user to quickly access favorite websites. . . . A bookmark, then, is essentially stored navigation data that allows a user to efficiently return to a favorite website.").

shops that can sell their products/services in conjunction with similar products/services from others e-shops." '083 patent, col. 1:55-57.

157. Further, the '083 patent claims improve upon the functioning of a computer system by using a surf code reference to allow the granular identification of content accessed by a user. The inventions disclosed in the '083 patent improve the functioning of a computer system by improving the security of the system and reducing the amount of data stored (and computer resource utilized). U.S. Patent No. 6,189,024, which was issued in 2001, is cited on the face of the '083 patent and was subsequently assigned to Facebook, described drawbacks in the state of the art at the time. These drawbacks in existing systems prevented a user from accessing an accurate list of web content visited where accessing occurred across multiple web sessions.

> This "history" function generally lasts throughout the time that a user instantiates the browser program until the point where the browser is terminated. This time period is what traditionally defines a "session." The session history function on browsers record the current navigation path of the user, i.e. it is a single-threaded path. . . . [A] drawback to this approach is apparent when a user navigates through a path on a typical browser, visiting page A 201 first. Page B 202 is then visited, followed by page C 203. The user backtracks up this path to page B 205 and deviates to page D 207. ***Once the user goes off the path, information about the previous path that was deviated from is lost.***[73]

158. U.S. Patent App. 09/752,058, which was assigned to Hewlett Packard (and is cited on the face of the '083 patent), describes drawbacks of existing systems that enabled the tracking of users to web content as including the creation of duplicate data, impairing the amount of computer memory space available on a computer system, and creating security issues from exposing a user's navigation data.

> A user's navigation data can, however, create some difficulties. In particular, a user's navigation data can be difficult to manage. . . . Because users often access the internet using different computers, a user's navigation data may become dispersed across the various computers operated by the user thus making access to this data difficult if not impossible. ***This can result in a data integrity issue where one user's navigation data overwrites or obscures navigation data*** for other users. There may also be ***a security issue when users leave navigation data on a***

[73] U.S. Patent No. 6,189,024, Col. 1:18-33 (emphasis added).

> ***computer they may casually use***. Additionally, the storage of ***navigation data locally occupies storage space in the user's computer memory drive thereby limiting the storage available for other uses***.[74]

159. One or more claims of the '083 patent teach the gathering of data from hosts to create a surf code reference. The creation of a label such as a "surf code" has been found to confer patent edibility by various courts.[75]

160. The '083 patent claims are not directed to a "method of organizing human activity," "fundamental economic practice long prevalent in our system of commerce," or "a building block of the modern economy." Instead, they are limited to a concretely circumscribed set of methods for retrieving the web content located on hosts and assigning the retrieved web content a surf code reference that is used to track user access to the web content.

161. The '083 patent claims are not directed at the broad concept/idea of "content management." Instead, they are limited to a concretely circumscribed set of methods for retrieving content on a host, assigning the content a surf code reference and using the surf code reference to track user access and generate a list of content accessed by a user. These methods are technologies unique to the internet age. AT&T, in U.S. Patent No. 5,774,123 (cited on the face of the '083 patent), identified problems unique to internet based systems for data retrieval.

> Although the Internet provides researchers and other users the ability to access a broad spectrum of information, it is well-appreciated that this amalgam of disparate information resources presents a sizable challenge when attempting to locate specific information of interest contained therein. ***Moreover, the inherent lack of organization with respect to the many information resources made accessible through the Internet makes even the apparently simple task of finding a previously located document or information service difficult***.[76]

162. The inventive concepts claimed in the '083 patent are technological, not "entrepreneurial." For example, retrieving content from a host server is a specific, concrete

[74] U.S. Patent App. No. 09/752,058 at ¶ 9 (emphasis added).

[75] *See e.g., Gonzalez v. InfoStream Group, Inc.*, Case. No. 2-14-cv-00906, Dkt. No. 160 at 7 (E.D. Tex. Feb. 6, 2016) (Finding claims that recite steps for "'gathering' one type of data and 'producing' a 'label.' 'Gathering' data may describe an abstract idea, but 'producing' a 'label' based on that data does not describe an abstract idea.").

[76] U.S. Patent No. 5,774,123, col. 1:37-45 (emphasis added) (the underlying patent application was assigned to AT&T Global Information Solutions Company).

solution to the technological problem of tracking user access to content retrieved from multiple hosts.

163. The ‘083 patent claims are directed toward a solution rooted in computer technology and use technology unique to computers and computer networking to overcome a problem specifically arising in the realm of web content management. For example, one or more claims of the ’083 patent require assigning a surf code reference to each of the different contents viewed by a user, storing a user list based on the surf-code reference for each of the different contents, and enabling a user to access a user list identifying the previously viewed contents.

The preemptive effect of the claims of the ‘083 patent are concretely circumscribed by specific limitations. For example, claim 1 of the ‘083 patent requires:

> A method of using a code to track user access to content, the method comprising the steps of:
>
> providing a computer hosting a plurality of contents provided by a plurality of content hosts, wherein the contents are stored on a computer storage medium, and wherein the computer is configured with all the required software and hardware to support the ability:
>
> to control all interfacing with the user without redirecting the user to any of the plurality of content hosts; and,
>
> to request and receive data from the content hosts;
>
> storing on the computer storage medium an identification of the user to enable the user to log in to the computer;
>
> permitting a logged-in user to access the computer through the requesting client to view at least two different contents in the plurality of contents;
>
> assigning a surf code reference to each of the different contents viewed, the surf code reference comprising information that identifies the contents viewed;
>
> receiving a request from a logged-in user to create a user list of different contents viewed by the logged-in user;
>
> storing the user list on the computer, the user list comprising the surf-code reference for each of the different contents viewed by the logged-in user;
>
> permitting the logged-in user to access the user list to identify the content viewed by the logged-in user; and,
>
> presenting the content viewed by the logged-in user to the requesting client based on the user list.

164. The ‘083 patent does not attempt to preempt every application of the idea of managing web content transmitted over a computer network, or even the idea of managing web content retrieved from a host.

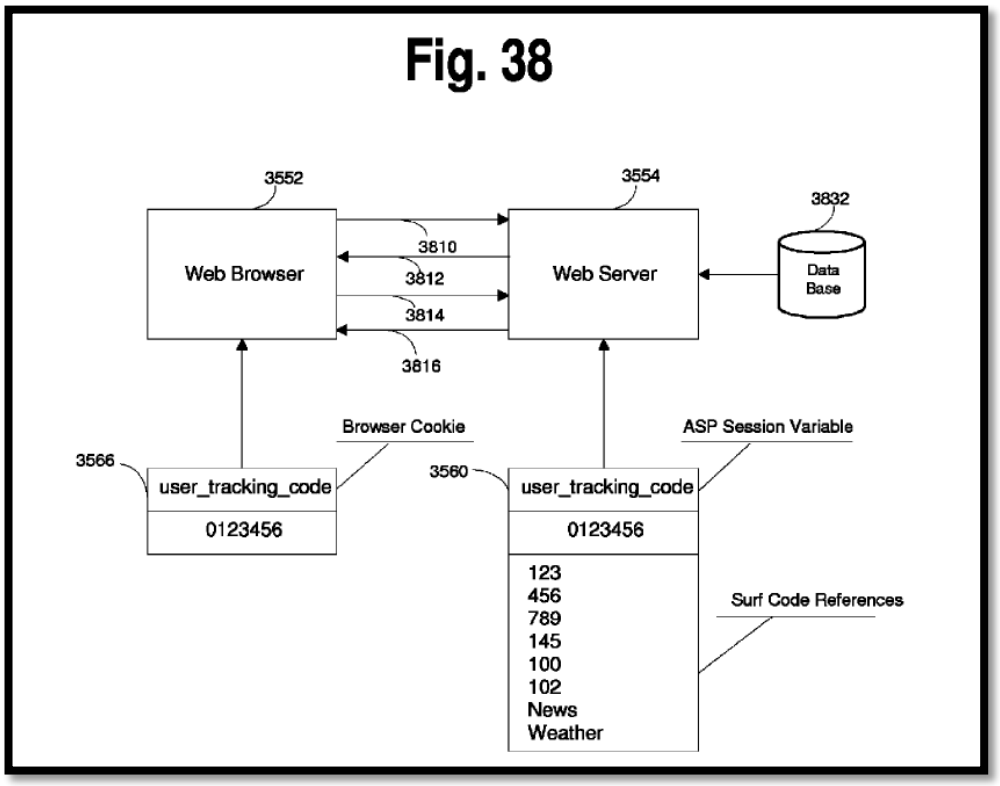
165. The ‘083 patent does not preempt the field of web content management systems, or prevent use of alternative web content management systems that enable the viewing of previously accessed web content. For example, the ’083 patent includes inventive elements—embodied in specific claim limitations—that concretely circumscribe the patented invention and greatly limit its breadth. These inventive elements are not necessary or obvious tools for achieving content aggregation from third parties, and they ensure that the claims do not preempt other techniques for web content management. Further, the twenty-two patents cited in the prosecution history include numerous systems that are not preempted by the claims of the ‘083 patent.

166. The ‘083 patent does not claim, or attempt to preempt, the performance of an abstract business practice on the internet or using a conventional computer. Further, the claimed subject matter of the ‘083 patent is not a pre-existing but undiscovered algorithm.

167. One or more claims of the ’083 patent require the use of a computer system through specific claim limitations including (1) computer hosting, (2) content hosts, (3) computer storage medium, (4) surf code reference, (5) transmitting the user tracking code from the computer, and (6) using a database.

168. The methods claimed in the ‘083 patent were not a longstanding or fundamental economic practice at the time of the patented inventions. Nor were they fundamental principles in ubiquitous use on the internet or computers in general. For example, the ‘083 patent specification describes limitations in the existing systems at the time the inventions disclosed in the ‘083 patent were conceived. “Currently, dynamic e-mail will not allow the creation of specialized e-shops that can sell their products/services in conjunction with similar products/services from others e-shops.” ‘083 patent, col. 1:54-59.

169. One or more claims of the ’083 patent require a specific configuration of electronic devices, a network configuration, and the web servers to retrieve hosted web content and assign the content a surf code reference that is used to generate a list of accessed content. These are meaningful limitations that tie the claimed methods and systems to specific machines. For example, the below diagram from the ‘083 patent illustrates a specific configuration of hardware disclosed in the patent.



‘083 patent, Fig. 38.

5. U.S. Patent No. 8,037,091

170. U.S. Patent No. 8,037,091 (“the ‘091 patent”) entitled, *Method of Using a Code to Track User Access to Content,* was filed on October 31, 2007, and claims priority to December 20, 2001. UnoWeb is the owner by assignment of the ‘091 patent. A true and correct copy of the ‘091 patent is attached hereto as Exhibit E. The ‘091 patent claims specific methods for tracking user internet surfing involving a first step of providing a computer hosting contents from content hosts.

171. The ‘091 patent claims a technical solution to a problem unique to computer networks – tracking an internet user’s access to content gathered from multiple web servers and providing the internet user with a list of content previously viewed by the user using a surf code reference.

172. The claims in the ‘091 patent require a server hosting content from three content hosts and the use of a unique Uniform Resource Locator Address. These are technological solutions that are rooted in the internet and have no comparable analog outside the realm of the internet.

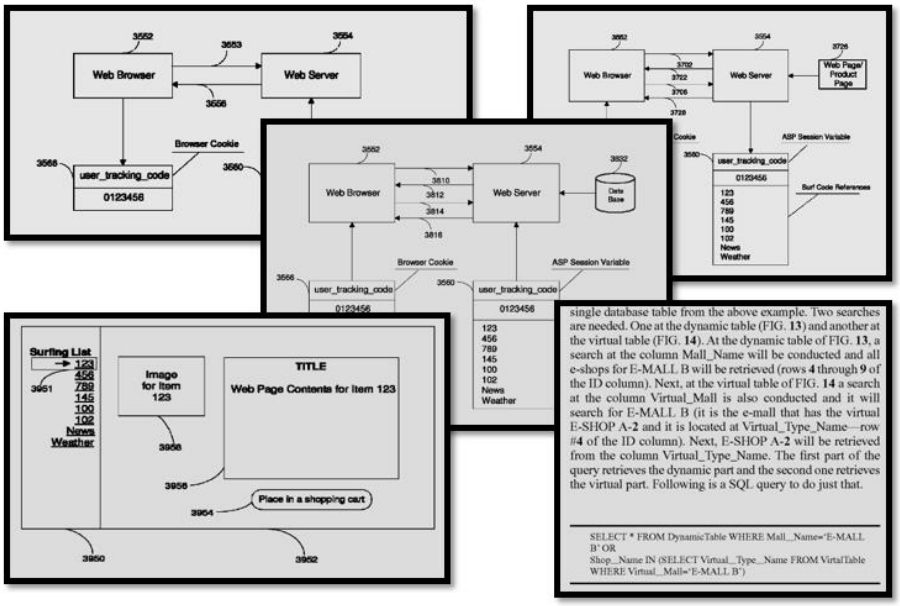
173. A unique feature of the internet is providing users with access to content aggregated from different web servers. The content in some instances might be presented in composite web pages. There was a need to track user access to specific pieces of content that although displayed on a single web page was aggregated from different web servers. “From this scenario it is clear that there is a need for a mechanism to track and keep the user surfing experience.” ‘091 patent, col. 21:53-54.

174. The ‘091 patent is directed at solving a problem unique to the internet – the tracking of internet user access to content aggregated from several hosts and enabling the display of previously accessed content to a user. To accomplish this objective, the ‘091 patent provided technological solutions including the use of a surf code reference that enabled the tracking of a user as content from different hosts is accessed. The patent specification explains that a surf code reference “is used for automatically storing a reference for each information supplied to each client and it forms the surf user-list. Once the user requests his/her surf user-list, the server will use each surf code reference and create the surf user-list and sent it to the user. A surf user-list will only include information that was previously viewed by the user.” ‘091 patent, col. 21:54-62.

175. Claim 7 of the ‘091 patent recites means-plus-function claim limitations governed by 35 U.S.C. § 112(f). The corresponding structure(s) in the ‘091 patent specification includes algorithms that improve the functioning of a computer by being more efficient “the web server

3554 will first save the requested webpage or the product page's code in the session variable user_tracking_code 3560 and second it will fest the webpage or the products page 3726 and send it 3728 to the web browser 3552." *See, e.g.*, '091 patent cols. 11:4-12:32, 22:1-58, figs. 34-39.

176. The '091 patent discloses computer algorithms in the specification. In addition to the structures and algorithms disclosed throughout the specification, these algorithms correspond to the means-plus-function claim limitation in the '091 patent. Means-plus-function claims such as Claim 7 in the '091 patent are inherently not abstract ideas. Stanford Law Professor Mark Lemley described his analysis: "If the patent is interpreted as a means-plus-function claim, it will be limited to the particular software implementation the patentee actually built or described. Such a narrow, specific claim should not be an unpatentable 'abstract idea.'" [77]



'091 patent, Col. 11:18-48, Figs. 34-35, 37-39.

177. The '091 patent addresses a problem faced by web site operators who had a need to track access to internet content that came from multiple web servers. Further, there was a need to allow users to access content that they had viewed even if the content had come from multiple web servers. The '091 patent teaches innovative new technologies that are

[77] Eugene Quinn, *The Ramifications of Alice: A Conversation with Mark Lemley*, IPWATCHDOG BLOG, September 4, 2014, http://www.ipwatchdog.com/2014/09/04/the-ramifications-of-alice-a-conversation-with-mark-lemley/id=51023/ (emphasis added).

technological solutions to these problems. The solutions include: (1) a virtual server computer hosting a plurality of content hosts, (2) enabling users to access a virtual server providing a view of content supplied from multiple web servers, [78] (3) assigning a surf code reference to each of the pieces of web content that are accessed by a user, [79] and (4) storing a user list comprising the surf code reference such that a user can subsequently access a list of the web content they had accessed.

178. The '091 patent discloses methods to prevent visitors from being lured away by third-party merchants. The methods disclose a system to retain web site visitors by processing data from various web servers. "[T]hey will have a broad selection without having to go to many different e-shops to find what they're looking for, and also be able to view web pages in their own native language." '091 patent, col. 1:66-2:2. Instead of transporting a web site visitor away from an owner's site, a user is displayed related content from the third-party merchant, "e-services/contents can be retrieved from different server by another server (secondary server) and this secondary server will make any or all of these e-services available to one or more servers (tertiary servers) and each of the tertiary servers will make these e-services available to a client."

[78] Like claims that have been found to constitute patent eligible subject matter, the inventions of the '091 patent are directed towards generating a composite web page that combined certain aspects of a host website with information from a third-party merchant. *DDR Holdings v. Hotels.com*, 773 F.3d 1245 (Fed. Cir. 2014) (Invention directed towards generating a composite web page that combined certain aspects of a host website with information from a third-party merchant was eligible for patenting because the invention addressed an important challenge (*i.e.*, retaining website visitors through the use of computer technology).); *KlausTech, Inc. v. Admob, Inc.*, Case. No. 10-cv-05899 Dkt. No.145 at 5 (N.D. Cal. Aug. 31, 2015) (Upholding the validity of an internet advertising patent that "employs a new approach to control and monitor the display of advertisement on Internet browsers and seeks to solve technical problems that do not exist in the conventional advertising realm."); *Mirror World Techs. LLC v. Apple Inc., et al.*, Case No. 13-cv-419 Dkt. No. 346 at 18 (E.D. Tex. July 7, 2015) (Upholding the patent eligibility of claims where "the invention is a method whereby a computer system organizes every data unit that it receives or generates chronologically with time stamps.").

[79] The '091 patent is directed at generating specific data structures. The generation of specific data structures has been found to confer patent eligibility by various courts. *See e.g., Advanced Marketing Sys., LLC v. CVS Pharmacy, Inc.*, Case No. 15-cv-00134 Dkt. No. 77 at 10 (E.D. Tex. Nov. 19, 2015) (Order Adopted at Dkt. No. 95 January 25, 2016) (Denying without prejudice Defendants' motion to dismiss patents directed to discount coupons: "The presence of these structures counsels away from summarily concluding that the asserted claims are directed to an abstract idea.").

Id., col. 20:58-62. This allows a web site to display content from various web servers without risking the loss of visitor traffic.

179. The '091 patent discloses methods that are directed to challenges particular to the internet (i.e., retaining web site visitors). The patent's claims did not merely address the performance of a business practice known from the pre-internet world and require it to be performed on the internet. Instead, the claimed solutions are necessarily rooted in computer technology and are directed to overcoming a problem specifically arising in the realm of computer networks. The need to track a user accessing content retrieved from various hosts presented a new challenge. Hewlett Packard Development Company, L.P., in a patent application filed in 2000 (that is cited on the face of the '091 patent), described the challenges presented by tracking user access to content from multiple hosts.

> Computer users are increasingly accessing the internet, for entertainment, informational, and work purposes using a variety of computing devices. Accessing and using the internet is often referred to as "surfing the net/web.' . . . Bookmarks are essentially short cuts that allow a user to quickly access favorite websites. . . . A bookmark, then, is essentially stored navigation data that allows a user to efficiently return to a favorite website. [80]

180. At the time of the inventions claimed in the '091 patent, processing, transmitting, and aggregating electronic data from various hosts and tracking users access to specific pieces of content presented new and unique issues over the state of the art. As explained in the '091 patent: "products/services cannot be shared among other e-malls or e-shops even within their own network of dynamic e-shops at the e-mall." '091 patent, col. 1:43-45.

181. Although the methods taught in the '091 patent have been adopted by leading businesses today, at the time of invention, the technologies taught in the '091 patent claims were innovative and novel. "Currently, dynamic e-mall will not allow the creation of specialized e-shops that can sell their products/services in conjunction with similar products/services from others e-shops." '091 patent, col. 1:55-57.

[80] *See also* U.S. Patent App. 09/752,058 at ¶ 6.

182. Further, the ’091 patent claims improve upon the functioning of a computer system by using a surf code reference to allow the granular identification of content accessed by a user. The inventions disclosed in the ‘091 patent improve the functioning of a computer system by improving the security of the system and reducing the amount of data stored (and computer resource utilized). U.S. Patent No. 6,189,024, which was issued in 2001, is cited on the face of the ‘091 patent and subsequently assigned to Facebook, described drawbacks in the state of the art at the time. These drawbacks in existing systems prevented a user from accessing an accurate list of web content visited where accessing occurred across multiple web sessions.

> This “history” function generally lasts throughout the time that a user instantiates the browser program until the point where the browser is terminated. This time period is what traditionally defines a “session.” The session history function on browsers record the current navigation path of the user, i.e. it is a single-threaded path. . . . [A] drawback to this approach is apparent when a user navigates through a path on a typical browser, visiting page A 201 first. Page B 202 is then visited, followed by page C 203. The user backtracks up this path to page B 205 and deviates to page D 207. ***Once the user goes off the path, information about the previous path that was deviated from is lost.***[81]

183. U.S. Patent App. 09/752,058, which was assigned to Hewlett Packard (and is cited on the face of the ‘091 patent), describes drawbacks of existing systems that enabled the tracking of users to web content as including the creation of duplicate data, impairing the amount of computer memory space available on a computer system, and creating security issues from exposing a user’s navigation data.

> A user's navigation data can, however, create some difficulties. In particular, a user's navigation data can be difficult to manage. . . . Because users often access the internet using different computers, a user's navigation data may become dispersed across the various computers operated by the user thus making access to this data difficult if not impossible. ***This can result in a data integrity issue where one user's navigation data overwrites or obscures navigation data*** for other users. There may also be ***a security issue when users leave navigation data on a computer they may casually use***. Additionally, the storage of ***navigation data locally occupies storage space in the user's computer memory drive thereby limiting the storage available for other uses***.[82]

[81] U.S. Patent No. 6,189,024, col. 1:18-33 (emphasis added).

[82] U.S. Patent App. No. 09/752,058 at ¶ 9 (emphasis added).

184. One or more claims of the ‘091 patent teach the gathering of data from hosts to create a surf code reference. The creation of a label such as a “surf code” has been found to confer patent edibility by various courts.[83] The ‘091 patent claims are not directed to a “method of organizing human activity,” “fundamental economic practice long prevalent in our system of commerce,” or “a building block of the modern economy.” Instead, they are limited to a concretely circumscribed set of methods for retrieving the web content located on hosts and assigning the retrieved web content a surf code reference that is used to track user access to the web content.

185. The ’091 patent claims are not directed at the broad concept/idea of “content management.” Instead, they are limited to a concretely circumscribed set of methods for retrieving content on a host, assigning the content a surf code reference and using the surf code reference to track user access and generate a list of content accessed by a user. These methods are technologies unique to the internet age.

186. The inventive concepts claimed in the ’091 patent are technological, not “entrepreneurial.” For example, retrieving content from a host server is a specific, concrete solution to the technological problem of tracking user access to content retrieved from multiple hosts.

187. The ‘091 patent claims are directed toward a solution rooted in computer technology and use technology unique to computers and computer networking to overcome a problem specifically arising in the realm of web content management. For example, one or more claims of the ’091 patent require assigning a surf code reference to each of the different contents viewed by a user, storing a user list based on the surf-code reference for each of the different contents, and enabling a user to access a user list identifying the previously viewed contents.

[83] *See, e.g., Gonzalez v. InfoStream Group, Inc.*, Case. No. 2-14-cv-00906, Dkt. No. 160 at 7 (E.D. Tex. Feb. 6, 2016) (Finding claims that recite steps for “‘gathering’ one type of data and ‘producing’ a ‘label.’ ‘Gathering’ data may describe an abstract idea, but ‘producing’ a ‘label’ based on that data does not describe an abstract idea.”).

> A method of using a code to track user access to content, the method comprising the steps of:
>
> providing a virtual server computer, the virtual server computer hosting a plurality of content hosts, the plurality of content hosts comprising a first content host, a second content host and a third content host;
>
> enabling each content host in the plurality of content hosts to be accessible by a user at a unique Uniform Resource Locator address;
>
> wherein the plurality of content hosts comprise a plurality of contents;
>
> enabling user interaction with the plurality of content hosts through the first content host without the user having to navigate to the unique Uniform Resource Locator address of any other content host in the plurality of content hosts;
>
> displaying to the user accessing the first host content from at least two different content hosts;
>
> assigning a surf code reference to each content displayed to the user, the surf code reference comprising information that identifies each such content displayed;
>
> supplying from the virtual server computer a user list to the user, the user list comprising an identification of each such content viewed by the user; and
>
> presenting any such content viewed by the user to the user requesting such content from the user list.

188. The ‘091 patent does not attempt to preempt every application of the idea of managing web content transmitted over a computer network, or even the idea of managing web content retrieved from a host.

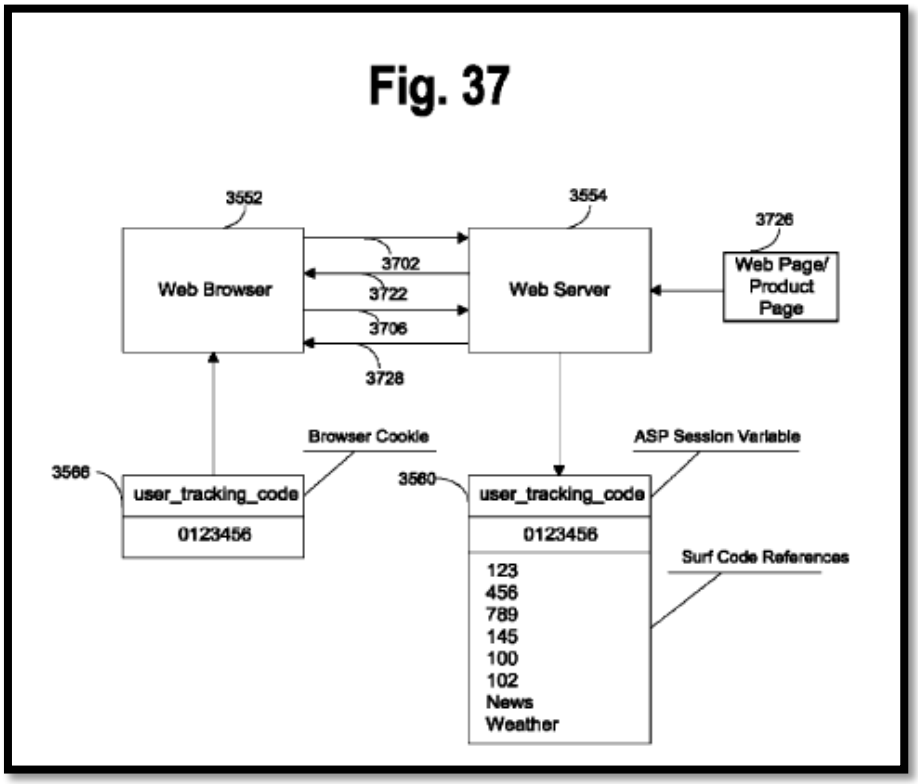
189. The ‘091 patent does not preempt the field of web content management systems, or prevent use of alternative web content management systems that enable the viewing of previously accessed web content. For example, the ’091 patent includes inventive elements—embodied in specific claim limitations—that concretely circumscribe the patented invention and greatly limit its breadth. These inventive elements are not necessary or obvious tools for achieving content aggregation from third parties, and they ensure that the claims do not preempt other techniques for web content management. Further, the twenty-one patents cited in the prosecution history include numerous systems that are not preempted by the claims of the ‘091 patent.

190. The ‘091 patent does not claim, or attempt to preempt, the performance of an abstract business practice on the internet or using a conventional computer. Further, the claimed subject matter of the ‘091 patent is not a pre-existing but undiscovered algorithm.

191. The one or more claims of the ’091 patent require the use of a computer system through specific claim limitations, including (1) a virtual server computer, (2) a unique resource locator address, (3) three content costs, (4) assigning a surf code reference, (5) supplying the virtual server computer a user list, and (6) storing on the virtual server computer storage medium the surf-code reference.

192. The methods claimed in the ‘091 patent were not a longstanding or fundamental economic practice at the time of the patented inventions. Nor were they fundamental principles in ubiquitous use on the internet or computers in general. For example, the ‘091 patent specification describes limitations in the existing systems at the time the inventions disclosed in the ‘091 patent were conceived. “Currently, dynamic e-mail will not allow the creation of specialized e-shops that can sell their products/services in conjunction with similar products/services from others e-shops.” ‘091 patent, col. 1:54-59.

193. One or more claims of the ’091 patent require a specific configuration of electronic devices, a network configuration, and the web servers to retrieve hosted web content and assign the content a surf code reference that is used to generate a list of accessed content. These are meaningful limitations that tie the claimed methods and systems to specific machines. For example, the below diagram from the ‘091 patent illustrates a specific configuration of hardware disclosed in the patent.



'091 patent, Fig. 37.

194. The '091 patent claims a technical solution to a problem unique to computer networks – easy and affordable worldwide e-commerce solutions where a seller can have its goods and services sold without the expertise or the expenses that today's e-commerce solutions require.

195. One or more of the '091 patent claims require a three content costs and the use of a Uniform Resource Locator Address, which is in the realm of the computer network/internet, to enable one or more contents located at different locations and be associated based on their objects and the associated contents displayed together on a webpage. This cannot be done by hand or by mind.

INTERNET ADVERTISING PATENTS

196. UnoWeb's Internet Advertising Patents disclose specific computer based systems and methods for an internet hosting environment to manage advertising and content and compensate content providers. Companies such as Facebook, Google, International Business

Machines, and Hewlett-Packard have identified that the internet created "unprecedented" new challenges unique to internet advertising and arising from problems directly created by the internet.

> ***The recent development of on-line networks***, such as America On-Line, CompuServe, and the Internet, has led to "on-line" advertising. For example, on the Internet, often such on-line advertisements will appear on a web page, such as a banner on the top or the bottom of the page. . . . In addition, if a user of such computer networks ***is continuously exposed to the same advertisement, the response rate to the advertisement will generally decline***. Therefore, it is highly desirable to have a system that controls the frequency of exposure of advertisements to particular users.[84]
>
> A further need exists for methods and apparatus for dynamic placement, management, and monitoring of blog advertising that generate additional revenue for bloggers and provide improved targeting for advertisers.[85]
>
> The proliferation of the Internet has facilitated the sharing and distribution of content and data like never before. Users now flock to websites, search engines, and social networks to access and share content and data. The amount of data available is estimated to be on the order of millions of terabytes. ***Along with this data comes an unprecedented opportunity to explore it for business purposes as well as a responsibility and need to respect the privacy of users***.[86]

197. One or more of UnoWeb's Internet Advertising Patents are directed to solving a problem unique to the internet. "Currently, content writers write content that are integrated onto a ***blog-portal, virtual community*** and others, the content writer does all the intellectual work and the ***hosting environment inserts advertisings*** and other paid content along the user-provided content without compensating the intellectual proprietor whatsoever." '858 patent, col. 1:11-16.

198. LinkedIn acknowledged in filings before the United States Patent and Trademark Office the importance of the architecture of the internet in creating unique problems relating to advertising. "The intense competition between online publishers to acquire new customers and retain existing ones, coupled with a renewed interest in online advertising. The goal of such

[84] U.S. Patent No. 5,948,061, col. 1:29-59 (assigned Google, Inc. and issued September 7, 1999) (emphasis added).

[85] U.S. Patent App. 12/826,924 at ¶ 4 (assigned to International Business Machines Corporation which cites the '139 patent as a relevant prior art reference).

[86] U.S. Patent No. 8,589,292, col. 1:6-13 (citing the '384 patent as relevant prior art) (emphasis added).

personalization is to tailor the selection of online content and advertising to the interests of a particular user or group of users. Content personalization is an application in the field of 'adaptive computation.'" U.S. Patent No. 9,208,251, col. 1:29-37.

199. Internet advertising companies such as Alliance Data and Facebook have recognized the value of providing relevant contextual advertising that compensates content providers.

> Commission Junction's product catalog functionality allows links to your products to be available to the entire CJ Marketplace, or a select few publishers if desired. ***Product links enable you to integrate buying opportunities directly within relevant content for immediate purchasing opportunities***. For example, on a Web site about the Caribbean, a publisher could place a CD of Caribbean music from an online record vendor somewhere in an article about the native music.[87]

200. During the prosecution history of the '858 patent, for instance, the examiner distinguished the inventions from the prior art by stating:

> ***The closest prior art*** Ramer et al (U.S. PG Pub 2007/0100653A1) which discloses a method of analyzing mobile content for compatibility with a criterion associated with a mobile communication facility type. JP2002/007122 A, Tsukihashi, Akira discloses a method of allowing a user who does not have any translation software such as a compiler or an assembler to obtain an environment in which the translation software is available. ***However, neither Ramer nor Tsukihashi singularly or in combination discloses the recited feature***:

U.S. Patent Office Notice of Allowability, Application/Control Number: 11/677,242 at 3 (July 14, 2009) (emphasis added).

201. Earlier systems were limited to certain specific products or product types and lacked the ability to combine paid and unpaid content on a webpage and pay the provider of the non-paid content based on user interaction with the webpage.

202. Earlier systems were technically incapable of the customization described and claimed in the UnoWeb patents, and thus could not support internet advertising revenue sharing, combining paid and unpaid internet content, and conducting internet advertising revenue sharing.

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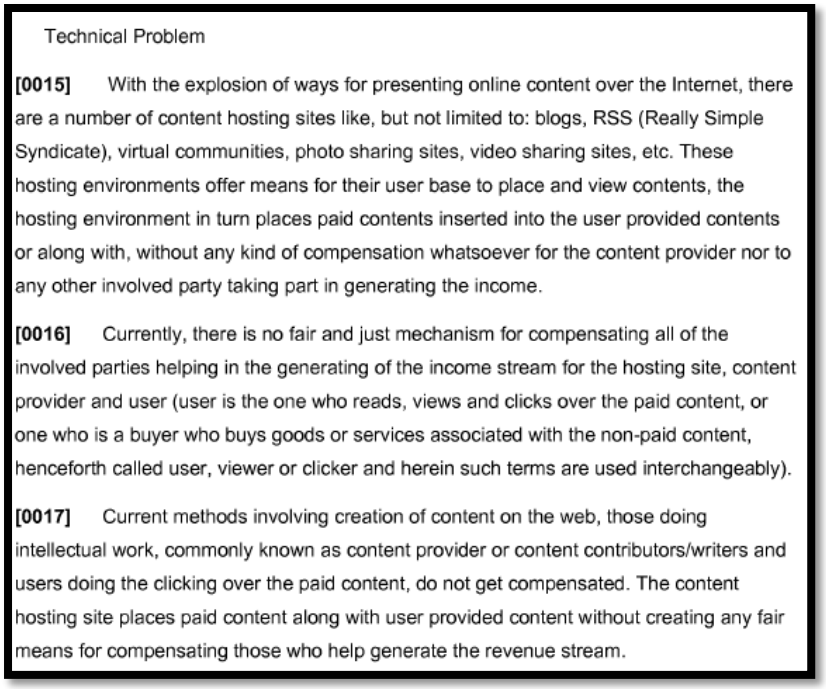
[87] *Commission Advertiser Product Data*, COMMISSION JUNCTION DATA TRANSFER GUIDE V 6.0 at 1 (November 2010) (emphasis added); *see also Yahoo! Inc. v. Facebook, Inc.*, Case No. 12-cv-01212 Dkt. No. 16 ¶ 28 (N.D. Cal.) ("Facebook admits it generates revenue through the sale of ads, that it offers a number of methods by which ads can be purchased, and that certain ads on Facebook may be charged on a CPC (cost per click) basis.").

Prior art systems were distinct and not preempted by Mr. Almeida's inventions including, for example, a prior art reference to Dye, that appears on the face of, and was addressed during the prosecution history of, several of the UnoWeb patents. As discussed by the United States Patent Office, Dye fails to disclose the internet advertising revenue sharing inventions disclosed in the UnoWeb patents.

203. The claims of the UnoWeb patents comprise meaningful, technological limitations that, when combined in the claims, define inventions that operate in a "new paradigm" compared to earlier ways to conduct internet advertising relating to revenue sharing. From the inception of the UnoWeb patents, the inventions were directed at solving problems that were unique to the architecture of the internet. For example, the patent application that led to UnoWeb's '384 patent identified the patent as directed toward problems relating to the "explosion of ways for presenting online content over the internet," "current methods involving creation of content on the web," and "content hosting sites."



Technical Problem

[0015] With the explosion of ways for presenting online content over the Internet, there are a number of content hosting sites like, but not limited to: blogs, RSS (Really Simple Syndicate), virtual communities, photo sharing sites, video sharing sites, etc. These hosting environments offer means for their user base to place and view contents, the hosting environment in turn places paid contents inserted into the user provided contents or along with, without any kind of compensation whatsoever for the content provider nor to any other involved party taking part in generating the income.

[0016] Currently, there is no fair and just mechanism for compensating all of the involved parties helping in the generating of the income stream for the hosting site, content provider and user (user is the one who reads, views and clicks over the paid content, or one who is a buyer who buys goods or services associated with the non-paid content, henceforth called user, viewer or clicker and herein such terms are used interchangeably).

[0017] Current methods involving creation of content on the web, those doing intellectual work, commonly known as content provider or content contributors/writers and users doing the clicking over the paid content, do not get compensated. The content hosting site places paid content along with user provided content without creating any fair means for compensating those who help generate the revenue stream.

U.S. Patent App. 13/157,291 at 4 (09-JUN-2011) (this application issued as UnoWeb's 384 patent).

204. The limitations of the UnoWeb patents, when taken together or in an ordered combination, recite an invention that is not merely the routine or conventional use of the internet.

In the prosecution of the '858 patent, specialized computer structures were identified by Mr. Almeida, including "specialized virtual content hosting sites."

> By having a mechanism to compensate the hosting-site (dynamically/virtually), the content writers and the clicker as well, a broad base of high quality content will be available for the creation of ***specialized virtual content hosting sites and portal***s, thus benefiting everyone along the way. The virtual presentation can be done from a single location or over the Internet by the use of web controls technology.

U.S. Patent App. 11/677,242 at ¶ 25 (emphasis added) (this patent application issued as UnoWeb's '858 patent).

1. U.S. Patent No. 7,580,858

205. U.S. Patent No. 7,580,858 ("the '858 patent") entitled, *Advertising Revenue Sharing*, was filed on February 21, 2007. UnoWeb is the owner by assignment of the '858 patent. A true and correct copy of the '858 patent is attached hereto as Exhibit F. The '858 patent relates to specific methods for web site development based on registering a content provider using a web page, tracking interactions with website visitors with paid web page content, and conducting revenue sharing based on user interactions with the paid web page content.

206. The '858 patent claims a technical solution to a problem unique to internet advertising – revenue sharing between the content provider/writer, website hosting the content, and the user clicking on the advertising associated with said content and content distributor.

207. The inventions disclosed in the '858 patent are directed at a problem unique to internet advertising – click fraud. Facebook's Chief Operating Officer, Sheryl Sandberg, has described the internet as being a completely new platform with challenges that are unique to the platform.

> ***[W]e're a completely new kind of marketing***. We're not TV, we're not search, we are a third medium. And that presents a challenge because the messages that talk at consumers on other platforms need to really be adopted and changed to be more inclusive. The right ad on TV or on search is the wrong ad for Facebook. Facebook marketers need to learn how to make their ads really a two-way dialogue with consumers. We also have a measurement challenge.[88]

[88] Sheryl Sandberg, FACEBOOK EARNING CALL TRANSCRIPT Q2 2012 (July 26, 2012) (emphasis added); *see also* U.S. Patent No. 9,196,000 (This patent assigned to Xerox which cites the '858 patent as relevant prior art describes the unique challenges of digital products and services where

208. Researchers at the University of Texas at Dallas have studied the problem of click fraud and identified that it is related to the technological structure of the internet. Only the internet allows detailed measurement of clicks or other user interactions with advertising content. "However, because the pay-per-click model relies on the assumption that a person clicking on an ad has an interest in the advertised product or service, it is vulnerable to click fraud, a practice of imitating a legitimate user to click on an ad to generate a charge per click without having an actual interest in the target of the ad . . . estimates [of] the average click fraud rate to be 18.6% for the second quarter of 2010."[89]

209. Companies, including Facebook, Google, Yahoo, eBay and AOL have described addressing click fraud as a technological problem requiring a technological solution.

Yahoo:

> "Click-based" online advertising systems require an advertiser to pay the system operator or its partners each time a user selects or "clicks" on the advertiser's online advertisement or sponsored search link. Unfortunately, ***the nature of such a system provides opportunities for some to click on ads for improper or fraudulent reasons. This is referred to generally as "click fraud."***[90]

eBay:

> ***Bots, spiders, and other technologies can be used to impersonate human actions, inflate the number of page views, and cause impressions to be rendered***. According to a study commissioned by the Association of National Advertisers,

there is a need for revenue sharing between various parties. "[D]ynamic digital solutions or products create issues with respect to collection of fees and the distribution of such fees to the appropriate entities because conventionally, the conventional form of payment for digital content and/or services has been a single payment mechanism, such as the user making a single payment to a single entity for the dynamic digital solution.").

[89] Min Chen, Varghese S. Jacob, Suresh Radhakrishnan, and Young U. Ryu, *The Effect of Fraud Investigation Cost on Pay-Per-Click Advertising*, 11TH ECONOMICS OF INFORMATION SECURITY CONFERENCE PROCEEDINGS (2012), *available at* http://www.econinfosec.org/archive/weis2012/papers/Chen_WEIS2012.pdf; *see also* Min Chen, Varghese S. Jacob, Suresh Radhakrishnan, and Young U. Ryu, *Can Payment-Per-Click Induce Improvements in Click Fraud Identification Technologies?* INFORMATION SYSTEMS RESEARCH Vol. 26 No. 4 (2015).

[90] U.S. Patent App. 12/240,675 at ¶ 2 (published April 1, 2010) (emphasis added) (This patent application, assigned to Yahoo, Inc., was co-authored by Research Scientists who at the time were employed by Yahoo.).

> bots are responsible for about 11% of display ad impressions and account for nearly double that in video ad impressions.[91]

Facebook:

> We also ***monitor user click activity over various intervals of*** time and we use this information and several other signals to inform what clicks we do or do not charge for. For example, a user who repeatedly clicks on ads is not likely providing real value, so we don't charge for those clicks. ***When our systems detect click activity that we think is invalid***, we mark it as such and do not charge for those clicks.[92]

Google:

> And so we approach ***it as an industry-wide system-wide sort of problem*** and it's an area in that we've investing in very heavily. . . . [W]e want to extend those capabilities to things like impression and view fraud, which is a challenge in the display and video space. ComScore had a recent study I think that said that about ***half the ads on the Internet are never actually seen by human being***.[93]

AOL:

> Online ad revenue has grown exponentially over the last couple of years. Fraudsters are finding inefficiencies in the system, and manipulating those inefficiencies to make money. . . . At AOL, combatting bot fraud is a top priority. We have several teams that are 100% dedicated to the effort, and we will continue to make significant investments to lead the industry in this battle. ***Our focus is on creating and integrating the best technologies***–both proprietary and best-of-breed through 3rd party partnerships (including the Integral Ad Science, Forensiq, DoubleVerify, MOAT, and more)—that stay ahead of organized criminals.[94]

210. The '858 patent has been cited by 16 United States patents and patent applications as relevant prior art. Specifically, patents issued to the following companies have cited the '858 patent as relevant prior art.

- International Business Machines Corporation

[91] *Are Your Display Ads Viewable*, EBAY MARKETING WEBSITE (2015), *available at*: http://cc.ebay.com/eap/ (emphasis added) (This is a study conducted by Moat of eBay's display advertising program.).

[92] Robert Hof, *Stung By Click Fraud Allegations, Facebook Reveals How It's Fighting Back*, FORBES WEBSITE (August 8, 2012), *available at*: http://www.forbes.com/sites/roberthof/2012/08/08/stung-by-click-fraud-allegations-facebook-reveals-how-its-fighting-back/ (emphasis added) (interview with Mark Rabkin, an engineering director on Facebook's ads team).

[93] Neal Mohan, GOOGLE MANAGEMENT PRESENTS AT CREDIT SUISSE TECHNOLOGY CONFERENCE (December 2, 2014), *available at*: http://seekingalpha.com/article/2725055-googles-goog-management-presents-at-credit-suisse-technology-conference-transcript (emphasis added) (Neal Mohan is the senior vice president of display and video ads at Google.).

[94] Olivia Oshry, *A Seller's Perspective: Solving Inventory Quality and Ad Fraud*, AOL ADVERTISING BLOG (March 13, 2015), *available at*: http://advertising.aol.com/blog/seller%E2%80%99s-perspective-solving-inventory-quality-and-ad-fraud (emphasis added).

- Yahoo! Inc.
- Microsoft Corporation
- Xerox Corporation
- Hewlett-Packard Development Company, L.P.

211. The ‘858 patent addresses the technological challenge of preventing “click fraud” using technological solutions that include the use of (1) waiting time thresholds, (2) ContentIDs associated with each piece of web content, (3) a registering and logging in a user to a website, and (4) registering a provider of web content.

> The column “ContentID” depicts the ID for each content and a Waiting time threshold can be setup for it as Well (not shown) as not to allow a paid content to be charged for multiple appearance during a time frame or to be allowed to appear to the same viewer only a number of times during the session, etc., it Will help the server to identify multiple clicks over the same content by the same clicker and invalidate clicks in such situations thus preventing fraud.

‘858 patent, Col. 5:55-63.

212. At the time of the inventions claimed in the ‘858 patent, electronically structuring revenue sharing between content providers and advertisers presented new and unique challenges over the state of the art. As explained in the ‘858 patent: “Currently, content writers write content that are integrated onto a blog-portal, virtual community and others, the content writer does all the intellectual work and the hosting environment inserts advertisings and other paid content along the user-provided content Without compensating the intellectual proprietor Whatsoever.” ‘858 patent, col. 1:11-16.

213. The ‘858 patent claims three important and concrete innovations that improve internet advertising: (1) registering a content provider to prepare non-paid content for the webpage on a computer; (2) using waiting-time thresholds to prevent click-fraud; and (3) paying the content provider for the number of interactions of the registered user with the paid content.

214. The ‘858 patent is directed at solving a problem that arises from internet advertising where there is a need to compensate third party content providers for displaying on web pages paid advertisements from parties unaffiliated with the content provider. This problem has been identified by major companies such as Microsoft and Xerox (in patents and patent applications that reference the ‘858 patent as relevant prior art) as unique to the internet.

> [C]omputing devices have traditionally stored information and associated applications and data services locally to the device. Yet, ***with the evolution of on-line and cloud services, information is increasingly being moved to network providers*** who perform none, some or all of the services on behalf of devices. However, no cloud service or network storage provider has been able to effectively provide information as a service on any platform, with publishers, developers, and consumers easily publishing, specializing applications for and consuming any kind of data, in a way that can be tracked and audited for all involved. ***This lack of an effective tracking mechanism makes it difficult to valuate information over time since the consumption of particular information may vary and is often unpredictable.***[95]

> However, ***dynamic digital solutions or products create issues with respect to collection of fees and the distribution of such fees*** to the appropriate entities because conventionally, the conventional form of payment for digital content and/or services has been a single payment mechanism, such as the user making a single payment to a single entity for the dynamic digital solution.[96]

215. The '858 patent claims are not directed to a "method of organizing human activity," "fundamental economic practice long prevalent in our system of commerce," or "a building block of the modern economy." Instead, they are limited to a concretely circumscribed set of methods and systems that provide a conduit for internet advertising revenue sharing between content providers and advertisers.

216. The '858 patent presents unconventional solutions to existing conventional systems. The unconventional nature of the claims in the '858 patent is evidenced by descriptions in patents that cite the '858 patent as relevant prior art.

> ***Conventional systems***, however, do not provide an adequate infrastructure for valuating individual contributions to an aggregated dataset. Indeed, unless data is particularly valuable by itself as a single data consuming experience (e.g., data provided via Westlaw®, LexisNexis®, Microsoft Virtual Earth®, the OpenGIS® Web Map Service Interface Standard (WMS), etc.), ***it is difficult to monetize or otherwise build on the experience*** beyond the four corners of that valuable data set.[97]

> ***Typically, an advertiser may pay a publisher websites*** (e.g., www.ebay.com or www.amazon.com) ***a certain amount of money for displaying its advertisement***

[95] U.S. Patent App. No. 12/816,868 (emphasis added) (assigned to Microsoft Corporation and published September 15, 2011).

[96] U.S. Patent No. 9,196,000 (emphasis added) (assigned to Xerox Corporation and referencing the '858 patent).

[97] U.S. Patent App. No. 2011/0255171 at ¶ 7 (emphasis added) (assigned to Microsoft Corporation and referencing the '858 patent as relevant prior art).

> ***for a certain period of time***, assuming that users of the publisher website may be interested in its advertisement."[98]

217. The '858 patent claims are not directed at the broad concept/idea of "advertising." Instead, the '858 patent claims are limited to a concretely circumscribed set of methods and systems for authorizing and managing revenue sharing for internet advertising between content providers and advertisers and controlling for click fraud. These methods and systems are technologies unique to the internet age.

218. A January 2016, a Tech Crunch article described the problem of click fraud as rooted in the architecture of the internet where "bot traffic" comprises roughly half of internet traffic.

> The "non-human traffic" part stems from the fact that few people do not understand the true definition of an "impression." The term does not refer to one human being seeing an advertisement one time. In reality, it is one web browser making one request to be served with one advertisement from one ad network. That's all. ***Essentially, human eyeballs have little to do with requests*** — and that fact makes the impressions data in ad reports essentially worthless. Why is this important? ***Just under half of all Internet traffic is bot traffic. Every time that a bot loads a webpage, the browser makes a request for an ad network*** to load an advertisement — and that action counts as a paid-for impression even though no human being will see it.[99]

219. Companies such as Google have identified "click fraud" as uniquely tied to computer technologies including automated "bots."

> ***Google disabled 49% more ads in 2015 than the prior year***, as the Internet giant developed new ways to detect a rising tide of dubious online marketing tactics. In 2016, Google said it would work to crack down on ***fraudulent clicks by automated***

[98] U.S. Patent No. 8,700,609, Col. 1:23-27 (emphasis added) (citing the '858 patent as relevant prior art and assigned to Yahoo! Inc.).

[99] Samuel Scott, *The $8.2 Billion Adtech Fraud Problem That Everyone Is Ignoring*, TECH CRUNCH WEBSITE (January 6, 2016), available at: http://techcrunch.com/2016/01/06/the-8-2-billion-adtech-fraud-problem-that-everyone-is-ignoring/ (emphasis added); *see also* Cynthia Littleton, *10 Things We Learned at Variety's Big Data Summit*, VARIETY MAGAZINE (November 4, 2015), available at: http://variety.com/2015/digital/news/10-things-we-learned-at-varietys-big-data-summit-1201634065/ ("Fraud is the scourge of digital advertising, buyers and sellers agreed. "It's funny that we're so focused on looking for the one guy who's ready to buy a car when there's $6 billion worth of click fraud going on right now," said Amy Carney, Sony Pictures TV's president of advertiser sales, strategy and research.").

> ***computers known as bots***. The bots can be costly to advertisers, who pay Google each time a user clicks on their ad.[100]

220. The '858 patent claims are directed toward a solution rooted in computer technology and use technology unique to computers and computer networking to overcome a problem specifically arising in the realm of distributed computing. For example, one or more claims of the '858 patent require paying the website content provider based on user interactions with content provided that the interaction does not include interactions that exceed a waiting-time threshold.

221. The '858 patent is directed toward enabling revenue sharing between internet content providers and internet advertisers (*i.e.*, enabling the placement of internet advertising on third party maintained webpages through the use of computer technology). Claims such as those in the '858 patent that are directed at a problem unique to the internet have been found patent eligible by the U.S. Court of Appeals for the Federal Circuit and numerous District Courts.[101]

222. One or more of the '858 patent claims require a "waiting-time threshold" before which paid content can be redisplayed to a registered user and/or user interactions are counted for the purpose of paying the web content provider. This use of a "waiting-time threshold" to manage revenue sharing between paid content and non-paid content providers is directed to solving "internet click fraud," a problem unique to the realm of the internet.

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[100] Alistair Barr, *Google Disabled 49% More Ads in 2015*, WALL STREET JOURNAL – DIGITS BLOG (January 21, 2016), *available at*: http://blogs.wsj.com/digits/2016/01/21/google-disabled-49-more-ads-in-2015/ (emphasis added).

[101] *See e.g.*, *DDR Holdings v. Hotels.com*, 773 F.3d 1245 (Fed. Cir. 2014) (Invention directed towards generating a composite web page that combined certain aspects of a host website with information from a third-party merchant was patent eligible because the invention addressed an important challenge (*i.e.*, retaining website visitors through the use of computer technology).); *KlausTech, Inc. v. Admob, Inc.*, Case. No. 10-cv-05899, Dkt. No.145 at 5 (N.D. Cal. Aug. 31, 2015) (Upholding the validity of an internet advertising patents that "employs a new approach to control and monitor the display of advertisement on Internet browsers and seeks to solve technical problems that do not exist in the conventional advertising realm."); *Advanced Marketing Sys., LLC v. CVS Pharmacy, Inc.*, Case No. 15-cv-00134 Dkt. No. 77 at 10 (E.D. Tex. November 19, 2015) (Order Adopted at Dkt. No. 95 Jan. 25, 2016) (Denying without prejudice Defendants' motion to dismiss patents directed to discount coupons "The presence of these structures counsels away from summarily concluding that the asserted claims are directed to an abstract idea.").

223. The preemptive effect of the claims of the ‘858 patent are concretely circumscribed by specific limitations. For example, claim 3 of the ‘858 patent requires:

> A method of Web site development based on advertising revenue sharing, comprising the steps of:
>
> displaying paid content from an advertiser through a webpage of the web site on a computer;
>
> registering a content provider to prepare non-paid content for the webpage on a computer;
>
> totaling a number of interactions by the user with the paid content;
>
> receiving payment from the advertiser for the number of interactions of the user with the paid content; and,
>
> paying the content provider for the number of interactions of the user with the paid content,
>
> wherein the user is a registered user, and wherein the interaction of the registered user comprises clicking on a link to a new link destination within the paid content, provided that a second and subsequent clicking on the link by the same registered user is not an interaction to be counted in the step of totaling a number of interactions unless it exceeds a Waiting-time threshold.

224. The ‘858 patent does not attempt to preempt every application of the idea of internet advertising revenue sharing. For example, the prior art cited in the prosecution history of the ‘858 patent provides examples of systems and methods of internet advertising and revenue sharing that are not preempted by the claims of the ‘858 patent.

225. The ‘858 patent does not preempt the field of internet advertising revenue sharing. For example, the ’858 patent includes inventive elements—embodied in specific claim limitations—that concretely circumscribe the patented invention and greatly limit its breadth. These inventive elements are not necessary or obvious tools for achieving internet advertising revenue sharing and preventing click-fraud. These limitations ensure that the claims do not preempt other techniques of compensating content providers for internet advertising. For example, the ‘858 patent describes specific narrow techniques for electronically structuring internet advertising revenue sharing and controlling for “click fraud.” For example, one or more claims of the ‘858 patent require: (1) displaying page content through a webpage; (2) logging-in a registered user for the purpose of tracking user interactions with the web page content; (3)

generating a total number of interactions for each registered user; (4) registered web content providers; (5) generating a number of interactions that do not exceed a waiting time threshold; and (6) paying an internet content provider based on the generated number of interactions, excluding those interactions falling within a waiting time threshold.

226. By preventing "click fraud," the '858 patent claims methods that make the web servers and computer networks more efficient by preventing "click fraud." Effective technologies to combat "click fraud," such as those disclosed in the '858 patent, have been recognized by numerous academic researchers as improving the functioning of the computer networks and web servers. Technologies such as those disclosed in the '858 patent have been found to improve the functioning of computer systems through reducing computational time,[102] reducing server load and bandwidth requests by reducing fraudulent bot activity,[103] and reducing the number of malware bots placed on machines for the purpose of generating clicks.[104]

227. A 2014 article in the International Journal of Current Engineering and Technology found that "managing click-fraud using a timing threshold defines a timing threshold

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[102] Richard Oentaryo, Ee-Peng Lim, Michael Finegold, *et al*., *Detecting Click Fraud In Online Advertising: A Data Mining Approach*, J. MACHINE LEARNING RESEARCH Vol. 15 at 112, 122 (2014) ("From the data, we observed that many clicks originating from the same IP or an unusually large click to IP ratio tend to be associated with fraudulent behavior, and may place the associated publisher under suspicion. . . . For each publisher and each unique IP address, we investigated the click profile, that is, the time delay between consecutive clicks. For the majority of fraudulent publishers in the training set, we observed that the number of unique IP addresses was below 3000. . . . This approach was of course far from being ideal, but it ***reduced the computational time considerably***.").

[103] Hadi Asghari, Michel J.G. van Eeten, Johannes M. Bauer, *Economics of Fighting Botnets: Lessons from a Decade of Mitigation*, IEEE SECURITY & PRIVACY Vol.13 No. 5 at 16 (September 2015).

[104] Haitao Xu, Daiping Liu, and Aaron Koehl *et al., Click Fraud Detection on the Advertiser Side*, in PROCEEDINGS OF THE 19TH EUROPEAN SYMPOSIUM ON RESEARCH IN COMPUTER SECURITY at 419 (2014) ("As online advertising has evolved into a multi-billion dollar business, click fraud has become a serious and pervasive problem. For example, the botnet 'Chameleon' infected over 120,000 host machines in the U.S. and siphoned $6 million per month from advertisers."); Anderson Ross; Barton Chris; Böhme Rainer, *et al*.; *Measuring The Cost Of Cybercrime*, in PROCEEDINGS OF THE WORKSHOP ON THE ECONOMICS OF INFORMATION SECURITY at 20-21 (2012) ("There are also the costs the botnets themselves inflict on society. These losses occur first and foremost in the cost of dealing with the infected machines. . . Another loss is borne by ISPs and hosting providers, who may have to act against infected machines in their networks.").

and only counts identical clicks once within the timing window." This strategy improved the functioning of a computer system by "us[ing] very little space and operation and makes only one pass over the click streams."[105]

228. The '858 patent claims methods that could not conceivably be performed in the human mind or by pencil and paper. The inventions disclosed in the '858 claims are rooted in computer technology and overcome problems specifically arising in the realm of computer networks, for instance click-fraud and revenue sharing. Click fraud has been recognized by companies such as Yahoo!, Inc.,[106] Microsoft,[107] and Cox Communications[108] as unique to and arising from the fundamental structure of the internet.

229. The systems and methods claimed in the '858 patent were not a longstanding or fundamental economic practice at the time of the patented inventions. Nor were they fundamental principles in ubiquitous use on the internet or computers in general. One or more claims of the '858 patent require a specific configuration of electronic devices, logging functionality, a network configuration, external databases, a computer network interface, etc. These are meaningful limitations that tie the claimed methods and systems to specific machines. For example, the below diagram from the '858 patent illustrates a specific configuration of hardware disclosed in the patent.

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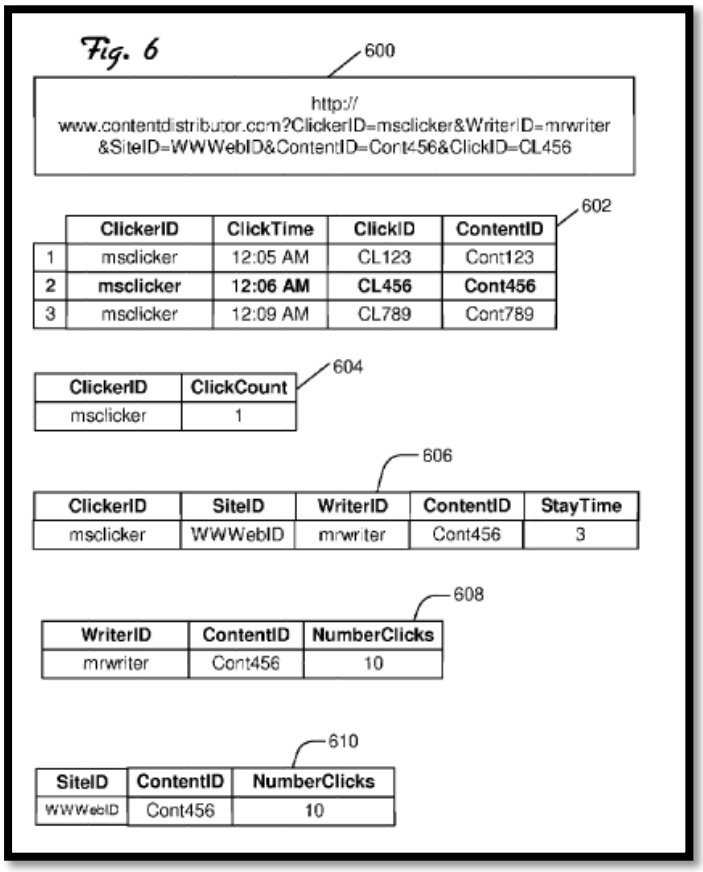
[105] Bhavini Kanoongo, Puja Jagania, and Khushali Deulkar, *Collation of Strategies for Click Fraud Detection Using Same IP Address*, INTERNATIONAL JOURNAL OF CURRENT ENGINEERING AND TECHNOLOGY at 3118 (October 2014).

[106] *See e.g.*, U.S. Patent No. 8,655,724 (This patent assigned to Yahoo! states, "'Click-based' online advertising systems require an advertiser to pay the system operator or its partners each time a user selects or "clicks" on the advertiser's online advertisement or sponsored search link. Unfortunately, the nature of such a system provides opportunities for some to click on ads for improper or fraudulent reasons. This is referred to generally as 'click fraud.'").

[107] *See e.g.*, U.S. Patent App. No. 13/406,532 (This application assigned to Microsoft states, "[t]he present technology is directed to analyzing aspects of advertising traffic in an online advertising system and monitoring.").

[108] *See e.g.*, U.S. Patent No. 8,763,117 (This patent assigned to Cox Communications states, "Click fraud involves the user's computer visiting websites without the user's awareness to create false web traffic for the purpose of personal or commercial gain.").



'858 patent, Fig. 6.

2. U.S. Patent No. 7,987,139

230. U.S. Patent No. 7,987,139 ("the '139 patent") entitled, *Advertising Revenue Sharing*, was filed on June 17, 2010, and claims priority to February 21, 2007. UnoWeb is the owner by assignment of the '139 patent. A true and correct copy of the '139 patent is attached hereto as Exhibit G. The '139 patent relates to specific methods for web site development based on advertising revenue sharing.

231. The '139 patent claims a technical solution to a problem unique to internet advertising – revenue sharing between the content provider/writer, website hosting the content, and the user clicking on the advertising associated with said content and content distributor.

232. The '139 patent claims at least three important and concrete innovations that improve internet advertising: (1) registering a content provider to prepare non-paid content for

the webpage on a computer; (2) setting a time period before which paid content can be redisplayed to a registered user; and (3) paying the content provider for the number of interactions of the registered user with the paid content.

233. At the time of the inventions claimed in the '139 patent, electronically structuring revenue sharing between content providers and advertisers presented new and unique issues over the state of the art. As explained in the '139 patent: "The content hosting site places paid content along with user provided content without creating any fair means for compensating those who helps generate the revenue stream." '139 patent, col. 1:47-50.

234. The '139 patent is directed at solving a problem that arises from internet advertising where there is a need to compensate third party content providers for displaying on web pages paid advertisements from parties unaffiliated with the content provider. This problem has been identified by major companies such as IBM and Xerox (in patents and patent applications that reference the UnoWeb patents) as unique to the internet.

> In addition, it is difficult for advertisers to determine where to best place advertisements, since content is diffusely spread over the Internet. A need therefore exists for methods and apparatus for dynamic placement, management and monitoring of blog advertising. ***A further need exists for methods and apparatus for dynamic placement, management and monitoring of blog advertising that generate additional revenue for bloggers*** and provide improved targeting for advertisers.[109]

> However, ***dynamic digital solutions or products create issues with respect to collection of fees and the distribution of such fees*** to the appropriate entities because conventionally, the conventional form of payment for digital content and/or services has been a single payment mechanism, such as the user making a single payment to a single entity for the dynamic digital solution.[110]

235. Although the systems and methods taught in the '139 patent have been adopted by leading businesses today, at the time of invention, the technologies taught in the '139 patent were innovative and novel. "Currently, content writers write content that are integrated onto a blog-

[109] U.S. Patent App. No. 12/826,924 at ¶ 4 (emphasis added) (assigned to International Business Machines Corporation which cites the '139 patent as a relevant prior art reference).

[110] U.S. Patent No. 9,196,000 (emphasis added) (assigned to Xerox Corporation and referencing UnoWeb's U.S. Patent No. 7,580,858).

portal, virtual community and others, the content writer does all the intellectual work and the hosting environment inserts advertisings and other paid content along the user-provided content without compensating the intellectual proprietor whatsoever." '139 patent, col. 1:21-27.

236. The '139 patent claims are not directed to a "method of organizing human activity," "fundamental economic practice long prevalent in our system of commerce," or "a building block of the modern economy." Instead, they are limited to a concretely circumscribed set of methods and systems that provide a conduit for internet advertising revenue sharing between content providers and advertisers.

237. The '139 patent claims are not directed at the broad concept/idea of "advertising." Instead, the '139 patent claims are limited to a concretely circumscribed set of methods and systems for authorizing and managing revenue sharing for internet advertising between content providers and advertisers. These methods and systems are technologies unique to the internet age. A 2013 New York Times article described this problem as rooted in the architecture of providing advertising using the internet.

> But affiliate marketing has a dark side: It can be a sure path to getting defrauded. Even Santa Claus is vulnerable. Within hours of joining an affiliate network, the Santa Claus store had two dozen websites signed on as affiliates and claiming commissions. "We were, like, 'Wow, that was easy,' "said Andy Teare, the store's general manager.[111]

238. The '139 patent claims are directed toward a solution rooted in computer technology and use technology unique to computers and computer networking to overcome a problem specifically arising in the realm of distributed computing. For example, one or more claims of the '139 patent require totaling a number of interactions by the registered user with the paid content, wherein the interaction of the registered user comprises viewing the webpage.

239. The '139 patent is directed toward enabling revenue sharing between internet content providers and internet advertisers (*i.e.*, enabling the placement of internet advertising on third party maintained webpages through the use of computer technology). Claims such as those

[111] Mark Cohen, *Surviving the Dark Side of Affiliate Marketing,* NY TIMES (December 4, 2013).

in the '139 patent that are directed at a problem unique to the internet have been found patent eligible by the U.S. Court of Appeals for the Federal Circuit and numerous District Courts.[112]

240. One or more of the '139 patent claims require a time threshold before which paid content can be redisplayed to a registered user. This use of a time threshold to manage the redisplaying of paid content is directed at solving "internet click fraud" a problem unique to the realm of the internet. Thus, one or more of the '139 patent claims are directed toward a problem specific to the internet.[113]

241. The preemptive effect of the claims of the '139 patent are concretely circumscribed by specific limitations. For example, claim 2 of the '139 patent requires:

> A method of web site development based on advertising revenue sharing, comprising the steps of:
>
> enabling a person to become a registered user;
>
> displaying paid content from an advertiser through a webpage of the web site on a computer;
>
> registering a content provider to prepare non-paid content for the webpage on a computer;
>
> setting a time period before which paid content can be redisplayed to a registered user;
>
> setting a maximum number of times that paid content can be displayed to a registered user;

[112] *See e.g.*, *DDR Holdings v. Hotels.com*, 773 F.3d 1245 (Fed. Cir. 2014) (Invention directed towards generating a composite web page that combined certain aspects of a host website with information from a third-party merchant was eligible for patenting because the invention addressed an important challenge (*i.e.*, retaining website visitors through the use of computer technology).); *KlausTech, Inc. v. Admob, Inc.*, Case. No. 10-cv-05899, Dkt. No.145 at 5 (N.D. Cal. Aug. 31, 2015) (Upholding the validity of an internet advertising patents that "employs a new approach to control and monitor the display of advertisement on Internet browsers and seeks to solve technical problems that do not exist in the conventional advertising realm."); *Advanced Marketing Sys., LLC v. CVS Pharmacy, Inc.*, Case No. 15-cv-00134 Dkt. No. 77 at 10 (E.D. Tex. November 19, 2015) (Order Adopted at Dkt. No. 95 Jan. 25, 2016) (Denying without prejudice Defendants' motion to dismiss patents directed to discount coupons "The presence of these structures counsels away from summarily concluding that the asserted claims are directed to an abstract idea.").

[113] *See* '139 patent, col. 6:2-7 ("[B]e allowed to appear to the same viewer only a number of times during the session, etc., it will help the server to identify multiple clicks over the same content by the same clicker and invalidate clicks in such situations thus preventing fraud."); see also Lee B. Burgunder, The Legal Aspects of Managing Technology at 446—7 (2010) ("one variant of fraud that is more unique to the internet is called click-fraud. Click-fraud results when a person takes steps to imitate legitimate views.").

totaling a number of times the paid content is displayed to the registered user;

receiving payment from the advertiser for the number of times the paid content is displayed to the registered user; and,

paying the content provider for the number of interactions of the registered user with the paid content.

242. The ‘139 patent does not attempt to preempt every application of the idea of internet advertising revenue sharing. For example, the prior art cited in the prosecution history of the ‘139 patent provides several examples of systems and methods of internet advertising and revenue sharing that are not preempted by the claims of the ‘139 patent.

243. The ‘139 patent does not preempt the field of internet advertising revenue sharing. For example, the ’139 patent includes inventive elements—embodied in specific claim limitations—that concretely circumscribe the patented invention and greatly limit its breadth. These inventive elements are not necessary or obvious tools for achieving internet advertising revenue sharing, and they ensure that the claims do not preempt other techniques of compensating content providers for internet advertising. For example, the ‘139 patent describes numerous techniques for electronically structuring internet advertising revenue sharing. The techniques inform the invention’s development but do not, standing alone, fall within the scope of its claims. For example, one or more claims of the ‘139 patent require: (1) setting a maximum number of times that paid content can be displayed to a registered user; (2) logging-in a registered user to allow the registered user to interact with the paid content on a computer; (3) setting a time period before which paid content can be redisplayed to a registered user; (4) totaling a number of times the paid content is displayed to the registered user; and (5) setting a time period before which paid content can be redisplayed to a registered user.

244. The ‘139 patent does not claim, or attempt to preempt, the performance of an abstract business practice on the internet or using a conventional computer.

245. The ’139 patent claims systems and methods not merely for managing revenue sharing for internet advertising, but for making the computer network itself more efficient.

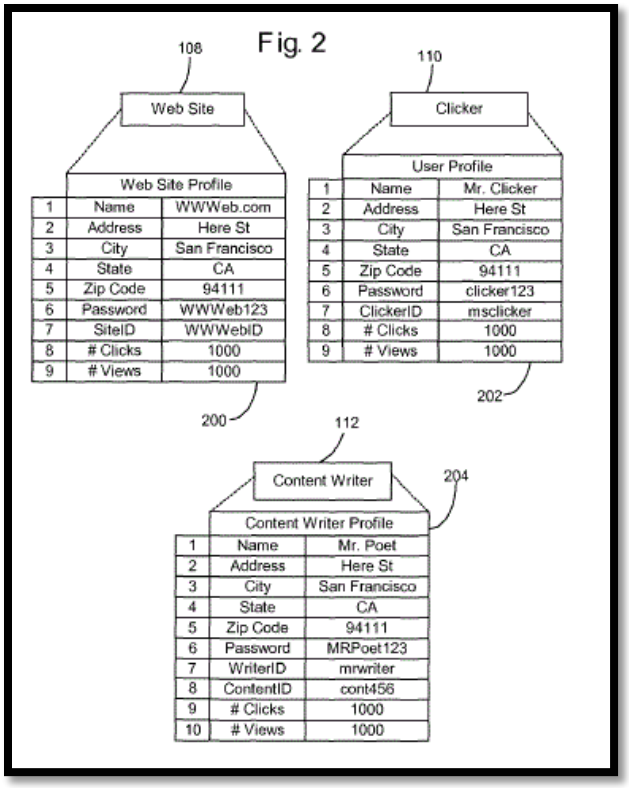
246. The ‘139 patent claims systems and methods that “could not conceivably be performed in the human mind or pencil and paper.” The claimed inventions in the ’139 claims are rooted in computer technology and overcomes problems specifically arising in the realm of computer networks, for instance click-fraud. Click fraud has been recognized by companies such as Yahoo!, Inc.,[114] Microsoft,[115] and Cox Communications[116] as being a problem unique to and arising from the internet.

247. The systems and methods claimed in the ‘139 patent were not a longstanding or fundamental economic practice at the time of patented inventions. Nor were they fundamental principles in ubiquitous use on the internet or computers in general. One or more claims of the ’139 patent require a specific configuration of electronic devices, a network configuration, external databases, a computer network interface, etc. These are meaningful limitations that tie the claimed methods and systems to specific machines. For example, the below diagram from the ‘139 patent illustrates a specific configuration of hardware disclosed in the patent.

[114] *See e.g.*, U.S. Patent No. 8,655,724 (This patent assigned to Yahoo! states, “’Click-based’ online advertising systems require an advertiser to pay the system operator or its partners each time a user selects or “clicks” on the advertiser's online advertisement or sponsored search link. Unfortunately, the nature of such a system provides opportunities for some to click on ads for improper or fraudulent reasons. This is referred to generally as ‘click fraud.’”).

[115] *See e.g.*, U.S. Patent App. No. 13/406,532 (This application assigned to Microsoft states, “The present technology is directed to analyzing aspects of advertising traffic in an online advertising system and monitoring.”).

[116] *See e.g.*, U.S. Patent No. 8,763,117 (This patent assigned to Cox Communications states, “Click fraud involves the user’s computer visiting websites without the user’s awareness to create false web traffic for the purpose of personal or commercial gain.”).



'139 patent, Fig. 2.

3. U.S. Patent No. 8,635,102

248. U.S. Patent No. 8,635,102 ("the '102 patent") entitled, *Assigning an Internet Domain to a User as the User Registers with a Server*, was filed on February 13, 2012, and claims priority to February 21, 2007. UnoWeb is the owner by assignment of the '102 patent. A true and correct copy of the '102 patent is attached hereto as Exhibit H. The '102 patent relates to specific methods for a client device registering with a server computer and the server computer assigning a domain to the client to enable making a computer program available to the client device.

249. The '102 patent has been cited by eight United States patents and patent applications as relevant prior art. Specifically, patents issued to the following companies have cited the '102 patent as relevant prior art.

- Apple, Inc.
- Elemica, Inc.
- Symantec Corporation
- Microsoft Corporation

250. The ‘102 patent claims a technical solution to a problem unique to computer networks – assigning a domain to a client device “enabling each user to have a personalized hosting space in an environment like social network with the server computer assigning a domain name to the user's personalized hosting space at the user's registration time.” ‘102 patent, col. 3:2-5.

251. At the time of the inventions claimed in the ‘102 patent, efficiently assigning a domain to a client device to enable programs to be available to a client device presented new and unique issues over the state of the art. As explained in the ‘102 patent: “Current methods of assigning a domain name to a user, who is a prospective content host (also known as a web host), do not permit assignment of the domain name at the time the user registers with a server computer. Once the user processes a request for a domain name, the succeeding steps leading to the user becoming a content host with content available to the public, are costly and technically complicated. ***The domain name acquisition and succeeding steps need to be made much less costly, simpler and automatic*** so that it is immediately implemented by the server computer when the user registers with the server computer.” ‘102 patent, col. 2:28-38 (emphasis added).

252. Although the methods taught in the ‘102 patent have been adopted by leading businesses today, at the time of invention, the technologies taught in the ’102 patent claims were innovative and novel.

> Present methods of retrieving and presenting content from another web site involve the use of web services and this mechanism is costly and very complex, requiring programming. Also, each such user has to have a web service associated with the user's hosting space at the social network website, which raises a formidable problem: security matters dictate that the social network website prohibit use of web service by users.

‘102 patent, col. 2:52-59.

253. The ‘102 patent claims are not directed to a “method of organizing human activity,” “fundamental economic practice long prevalent in our system of commerce,” or “a building block of the modern economy.” Instead, they are limited to a concretely circumscribed set of methods that provide for making programs or content available using the domain assigned to a computer device.

254. The ‘102 patent claims at least four important and concrete innovations that improve the use of domain assignment: (1) fetching and returning the first content from the first domain and the second content from the second domain to the client, wherein fetching and returning is performed by the server computer without using web-based linking; (2) using the domain assigned for the computer device to make a program or a content stored in the non-transitory storage medium available to the computer device and consumable by the computer device; (3) using the first top-level domain as reference and searching content on to the top level domain from the plurality of content hosts, wherein using and searching is performed by the server computer; and (4) assigning a domain name to the client device transforming the client device to an active device able to serve content or to execute a program on the processor.

255. The ’102 patent claims are not directed at the broad concept/idea of “transferring information.” Instead, the ‘102 patent claims are limited to a concretely circumscribed set of methods for managing access to computer programs and data using domain registration. These methods are technologies unique to the internet age.

256. The ‘102 patent claims are directed toward a solution rooted in computer technology and use technology unique to computers and computer networking to overcome a problem specifically arising in the realm of distributed computing. For example, one or more claims of the ’102 patent require assigning a domain to a client device wherein the assignment is performed by a server connected over a computer network.

257. The ‘102 patent is directed to specific problems in the field of domain registration and assignment. The ‘102 patent is directed toward enabling making data and programs available to a client device based on the domain assigned to the client device. Claims such as those in the ‘102 patent that are directed at a problem unique to the internet have been found patent eligible by the U.S. Court of Appeals for the Federal Circuit and numerous District Courts.[117]

[117] *See e.g.*, *DDR Holdings v. Hotels.com*, 773 F.3d 1245 (Fed. Cir. 2014) (Invention directed towards generating a composite web page that combined certain aspects of a host website with

258. The preemptive effect of the claims of the '102 patent are concretely circumscribed by specific limitations. For example, claim 1 of the '102 patent requires:

> A method of a server computer assigning a domain to a user, and using direct domain to domain content transfers to enable a first user's content to be directly associated with a second user's content, the method comprising the steps of:
>
> providing a server computer comprising non-transitory storage medium;
>
> receiving at the server computer a first request from a first user to register with the server computer;
>
> registering the first user, wherein registering is performed by the server computer, and wherein the registering comprises assigning a first user identification to the first user, said first user identification stored on the non-transitory storage medium;
>
> assigning a first domain to the first user that is registered, wherein assigning is performed by the server computer;
>
> wherein the first domain is assigned a domain name that is chosen by the first user, or that is supplied by the server computer, or that is the first user identification;
>
> receiving at the server computer a second request from a second user to register with the server computer;
>
> registering the second user, wherein registering is performed by the server computer, wherein the registering comprises assigning a second user identification to the second user, said second user identification stored on the non-transitory storage medium;
>
> assigning a second domain to the second user that is registered, wherein assigning is performed by the server computer;
>
> wherein the second domain is assigned a domain name that is chosen by the second user, or that is supplied by the server computer, or that is the second user identification;
>
> managing the first domain that was assigned, wherein managing is performed by the server computer, and wherein managing comprises the server computer assigning a first content to the first domain;
>
> wherein the first content is provided by the first user;
>
> managing the second domain that was assigned, wherein managing is performed by the server computer, and wherein managing comprises the server computer assigning a second content to the second domain;
>
> wherein the second content is provided by the second user;

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information from a third-party merchant was eligible for patenting because the invention addressed an important challenge (*i.e.*, retaining website visitors through the use of computer technology).); *Improved Search LLC v. AOL, Inc.*, Case No. 15-cv- 262, Dkt. No. 21 at 18 (D. Del. March 22, 2016) (Confirming the patentability of claims where "The methods at bar do not perform a business method known from the pre-Internet world on the computer, instead, the methods contain an additional layer of complexity.").

> receiving a request from a client for the first content at the first domain at the server computer; and
>
> fetching and returning the first content from the first domain and the second content from the second domain to the client, wherein fetching and returning is performed by the server computer without using web-based linking.

259. The ‘102 patent does not attempt to preempt every application of the idea of internet domain assignment. For example, the prior art cited in the prosecution history of the ‘102 patent provides several examples of systems and methods of internet advertising that are not preempted by the claims of the ‘102 patent.

260. The ‘102 patent does not preempt the field of domain assignment for making data and programs available. For example, the ’102 patent includes inventive elements—embodied in specific claim limitations—that concretely circumscribe the patented invention and greatly limit its breadth. These inventive elements are not necessary or obvious tools for making data and programs available over a network, and they ensure that the claims do not preempt other techniques of making data and programs available over a network.

261. For example, the ‘102 patent describes numerous techniques for assigning domains to a user or content host. The techniques inform the invention’s development but do not, standing alone, fall within the scope of its claims.

262. The ‘102 patent does not claim, or attempt to preempt, the performance of an abstract business practice on the internet or using a conventional computer.

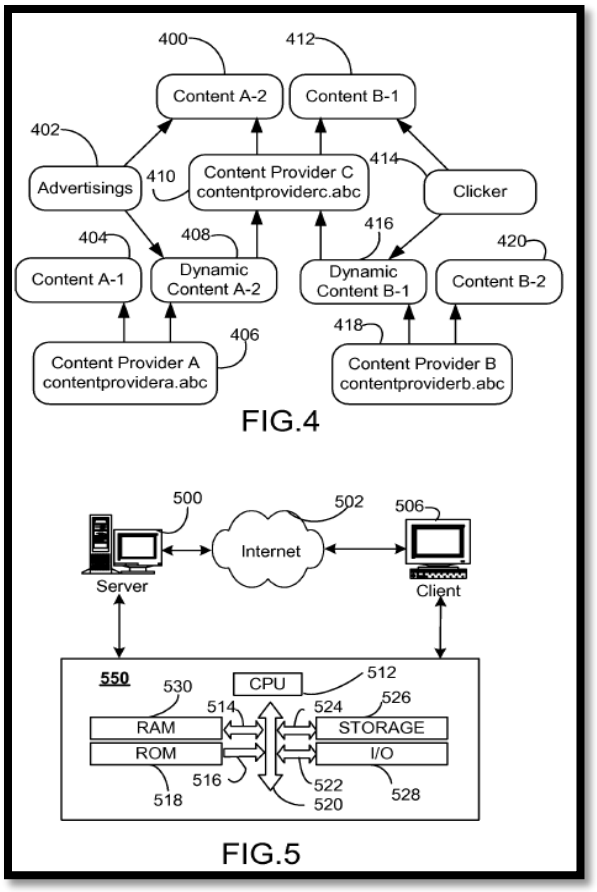
263. The ‘102 patent claims methods that “could not conceivably be performed in the human mind or pencil and paper.”

264. The claimed inventions in the ’102 claims are rooted in computer technology and overcomes problems specifically arising in the realm of computer networks, for instance: domain assignment.

265. The methods claimed in the ‘102 patent were not a longstanding or fundamental economic practice at the time of patented inventions. Nor were they fundamental principles in ubiquitous use on the internet or computers in general.

266. The asserted claims do not involve a method of doing business that happens to be implemented on a computer; instead, they involve a method for managing access to data and programs in a way that will affect the web server system itself, by making it more efficient.

267. One or more claims of the ’102 patent require a specific configuration of electronic devices, a network configuration, external databases, a computer network interface, etc. These are meaningful limitations that tie the claimed methods and systems to specific machines. For example, the below figures from the ‘102 patent illustrate a specific configuration of hardware disclosed in the patent.



‘102 patent, Figs. 4 & 5.

TARGETING COMPUTER NETWORK CONTENT & GLOBAL RESOURCE MANAGEMENT PATENTS

1. U.S. Patent No. 8,402,163

268. U.S. Patent No. 8,402,163 ("the '163 patent") entitled, *Target Advertising To A Specific User Offered Through An Intermediary Internet Service Provider, Server Or Wireless Network*, was filed on July 12, 2010, and claims priority to February 21, 2007.[118] UnoWeb is the owner by assignment of the '163 patent. A true and correct copy of the '163 patent is attached hereto as Exhibit I.

269. The '163 patent claims a technical solution to a problem unique to internet advertising and internet content management – targeting advertising and internet content to a user accessing the content through a client computer accessing a server computer through an Internet Service Provider ("ISP") or a wireless node.

270. The '163 patent claims at least three important and concrete innovations that improve targeting of advertising and web content to an internet client: (1) parsing and hosting on a server an object; (2) selecting an object to host on the server from a word, a name of an image, an invisible object, code embedded on a webpage, or an audio/video player embedded on a web page; (3) creating a link reference to a second content; (4) indexing content to enable identifying related web content; (5) generating formatted web content containing the object hosted on the server and a link reference.

271. The '163 patent and its underlying patent applications[119] have been cited by thirty United States patents and patent applications as relevant prior art. Specifically, patents issued to the following companies have cited the '163 patent as relevant prior art.

- Yahoo! Inc.
- Google, Inc.
- Radius Networks, Inc.
- Qualcomm, Inc.
- CBS Interactive, Inc.
- Bottlenose, Inc.
- Lexmark International, Inc.
- Alibaba Group Holding Limited.

[118] The '163 patent claims priority to U.S. Patent App. No. 11/677,224.

[119] *See* U.S. Patent App. Nos. 13/769,367 and 12/834,103.

- CNET Networks, Inc.[120]
- Ericsson Television, Inc.

272. At the time of the inventions claimed in the '163 patent, targeting internet advertising and web content presented new and unique issues over the state of the art. As explained in the '163 patent specification, "[existing systems] fail[ed] to teach a comprehensive way of targeting advertising or content to a specific audience without noticeable intrusions. . . . [Existing systems] may be problematic because it teaches changing advertisements that are already rendered into a Webpage and this may lead to a false sense on the part of the user as to the sponsorship or legitimacy of the content." '163 patent, Col. 2:-28-40.

273. The '163 patent is directed at solving a problem that arises from the architecture of the internet – a need to target internet advertising and content to client computers. Evidencing the groundbreaking inventive nature of the '163 patent, patents citing the '163 patent (from Yahoo, CBS Interactive, and Ericsson) as relevant prior art have identified limitations in the prior art as requiring "significant oversight and maintenance," having "limit[ations on] the scalability," and being "inefficient."

> ***Traditionally, each individual who visits a website obtains the same information***. In slightly more advanced systems, sections of content provided via the website may be password protected to limit access to the information. However, these types of systems typically involve ***significant oversight and maintenance***.[121]
>
> ***Conventional methods of displaying descriptive content*** relevant to particular assets involve mapping descriptive content directly to a particular asset. FIG. 1 is a schematic representation of a conventional relationship between descriptive content and a particular asset according to such a conventional method. A content is mapped directly to an asset. ***Such an approach may limit the scalability of the descriptive content, since the descriptive content often may apply to similar assets that may exist in the same database*** at the same time, or that may come into existence after the descriptive content has been published.[122]
>
> ***A traditional way of increasing the effectiveness of any particular advertising campaign is simply to present the advertising content to as many- people as possible***. The effectiveness of this strategy relies on the advertising content being

[120] CNET Networks, Inc. is a subsidiary of CBS Interactive, Inc.

[121] U.S. Patent App. No. 13/315,028 at ¶ 2 (this patent application cites the '163 patent as relevant prior art and was assigned to Yahoo! Inc.).

[122] U.S. Patent No. 8,195,679, Col. 1:25-35 (emphasis added) (this patent cites the '163 patent as relevant prior art and was assigned to CBS Interactive, Inc.).

> relevant to only a fraction of the population that receives it. . . . ***[T]raditional techniques for providing advertising content are at best inefficient***. Furthermore, as technological advances create more and. more media outlets for users to select from (e.g., hundreds of possible cable television channels, many thousands of potential websites for Interact users to select from), it is increasingly impractical to reach a wider audience.[123]

274. Although the systems and methods taught in the '163 patent have been adopted by leading businesses today, at the time of invention, the technologies taught in the '163 patent were innovative and novel. "A further advantage of the present invention over currently available prior art is that the user will have a greater content availability related to the user' s interest by having the Internet Service Provider associating relevant content to the user." '163 patent, Col. 4:40-43.

275. The '163 patent claims are not directed to a "method of organizing human activity," "fundamental economic practice long prevalent in our system of commerce," or "a building block of the modern economy." Instead, the '163 patent claims are limited to a concretely circumscribed set of methods to generate and display related web content on a web page using indexing and parsing.

276. The '163 patent claims are not directed at the broad concept/idea of "content management." Instead, the '163 patent claims are limited to a concretely circumscribed set of methods for indexing content, identifying related content, generating link references, and formatting content for display to a user. These methods and systems are technologies unique to the internet. The following excerpt from a patent application assigned to IBM that cites the UnoWeb patents as relevant prior art identifies the unique challenges presented by the internet.

> In addition, it is difficult for advertisers to determine where to best place advertisements, since content is diffusely spread over the Internet. A need therefore exists for methods and apparatus for dynamic placement, management and monitoring of blog advertising.[124]

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[123] W.O. Patent App. No. 2012/090,082 (emphasis added) (this patent application cites the '163 patent as relevant prior art and was assigned to Ericsson Television, Inc.).

[124] U.S. Patent App. No. 12/826,924 at ¶ 4 (emphasis added) (assigned to International Business Machines Corporation which cites the '139 patent as a relevant prior art reference).

277. Moreover, displaying relevant related content to a user based on a "first content" presented challenges that are unique to the internet. Companies such as Facebook, Google, and SalesForce.com identified the challenges the '163 patent was directed at overcoming as involving problems unique to and arising from the internet.

> Additionally, ***conventional social networking systems do not generate stories associated with a user's collection of items*** for presentation to other users of the social networking system, such as on a timeline or newsfeed, which may increase public awareness about products associated with the items.[125]

> Publications (e.g., electronic publications, websites, mobile applications, Internet browser applications, IPTV, digital video, etc.) may include third party content items (e.g., advertisements), for example, to financially support a resource provider's (e.g., publication provider) operations. ***Some resource providers do not maintain a third party content infrastructure***, and thus depend on content serving entities to recruit third party content sponsors (e.g., advertisers, etc.) and to serve the sponsored content items.[126]

> Unfortunately, c***onventional database approaches to entering a relationship confuse the user***. For example, when presented with the ability to select and relate data objects for the purpose of building reports, it can be difficult to understand the resulting data set and how it might be represented in a report. . . . As a result, the process of constructing these relationships can be bewildering or error-prone. Erroneous relationships may or may not become obvious upon reviewing report data. Even when the error is obvious from looking at the report, it may take several tries before the relationship is debugged and corrected.[127]

278. The limitations of the '163 patent, when taken together or in an ordered combination, recite an invention that is not merely the routine or conventional use of the internet. At the time the inventions disclosed in the '163 patent were conceived, the association of content using indexing and link references was not conventional or routine. Patent applications and issued patents contemporaneous to the '163 patent provide further substantiation that the methods disclosed in the '163 patent were far from the conventional use of the internet.

> [I]f a user adds an image of a Maserati to his "cool cars" collection, information associated with the item in the image, such as the price of the car, will not be

[125] U.S. Patent App. No. 13/767,810 (this patent is assigned to Facebook and lists Facebook's director of monetization product marketing as an inventor).

[126] U.S. Patent No. 8,688,669 (emphasis added) (this patent application cites the '163 patent as relevant prior art and was assigned to Google, Inc.).

[127] U.S. Patent App. No. 11/701,316 at ¶ 4 (emphasis added) (this patent application is cited on the face of the '163 patent and assigned to SalesForce.com).

> updated when the user views the image of the Maserati in his collection when the price of the car changes. Likewise, other users viewing the image via the collection and adding the image to another user's collection are not presented with updated information associated with the item shown in the image. Additionally, ***conventional social networking systems typically do not present stories associated with a user's collection of items*** to other users including options such as purchasing an item or adding an item to their own collections.[128]
>
> These advertisements often include links to the web page where the asset being advertised can be acquired. ***This method of offering assets for sale and advertising provides only one method for the user to acquire the given asset***, regardless of the user, asset, relationships among manufacturer, retailer and initiating party (e.g., news website), etc.[129]
>
> Content provided by the user may be presented to other social networking system users in a story displayed on a newsfeed presented to other social networking system users. However, ***conventional social networking systems do not identify additional content related to the story that may be of interest to the user viewing the story***.[130]

279. The '163 patent claims are directed to a solution rooted in computer technology and use technology unique to computers and computer networking to overcome a problem specifically arising in the realm of distributed computing. For example, one or more claims of the '163 patent require formatting the first content and first link reference for display on the client computer and redirecting a user to the hosting location of the second content.

280. Claims such as those in the '163 patent that are directed to a problem unique to the internet have been found patent eligible by the U.S. Court of Appeals for the Federal Circuit and numerous District Courts.[131] Further, UnoWeb's competitors have sought patent protection for claims directed toward content association and targeting.[132]

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[128] U.S. Patent App. U.S. Patent App. No. 13/767,810 (this patent is assigned to Facebook and lists Facebook's director of monetization product marketing as an inventor).

[129] U.S. Patent App. No. 12/268,347 at ¶ 7 (emphasis added) (this patent application cites the '163 patent and was assigned to CBS Interactive, Inc.).

[130] U.S. Patent App. No. 13/772,818 at ¶ 3 (this patent application is assigned to Facebook).

[131] *See e.g.*, *Mirror World Techs. LLC v. Apple Inc., et al*, Case No. 13-cv-419, Dkt. No. 346 at 18 (E.D. Tex. July 7, 2015) (Upholding the patent eligibility of claims where "the invention is a method whereby a computer system organizes every data unit that it receives or generates chronologically with time stamps."); *Motio Inc. v. BSP Software LLC et al*, Case No. 12-cv-647, Dkt. No. 226 at 10 (E.D. Tex. Jan. 4, 2016) (upholding the patent eligibility of a patent directed at a method for providing version control using an automated agent).

[132] *See e.g.*, U.S. Patent No. 8,504,910 (This patent is assigned to Facebook and teaches a "flexible mechanism to allow user interaction with content from a web page associated with a

281. The preemptive effect of the claims of the '163 patent are concretely circumscribed by specific limitations. For example, claim 1 of the '163 patent requires:

> A method of controlling the display of information on a client computer operated by a user, the method implemented by a server computer and comprising the steps of:
>
> hosting a first content on the server computer, the first content comprising material that can be parsed into a plurality of objects, said objects selected from the group consisting of:
>
> a word the word comprising: a word within a link, a word within a title, a bolded word, an underlined word, and an italicized word;
>
> a name of an image;
>
> an invisible object used by a web browser, but not displayable to a user of the web browser;
>
> coding embedded in a web page; and
>
> an audio/video player embedded in a web page;
>
> indexing the plurality of objects, said indexing performed by the server computer;
>
> identifying a second content that is related to the first content, said identifying performed by the server computer using an object in the plurality of objects;
>
> enabling the client computer to access the server computer;
>
> creating a first link reference to the second content;
>
> formatting the first content and the first link reference for display on the client computer wherein said formatting displays the first link reference in a:
>
> link display area that is separated from the first content that will display in a content display area;
>
> style that is indicative that other additional related content is available to the user;
>
> configuration selected from the group consisting of a tab; a link; a bar; a floating bar; a browser bar; a user downloaded bar; and a menu;
>
> transmitting the first content that was formatted and the first link reference to the client computer;
>
> responding to user interaction with the first link reference by:
>
> sending the second content to replace the first content on the client computer; the second content comprising a second link reference; and,

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third-party web site or presentation of data from a web page associated with a third-party web site using format determined by the social networking system.").

redirecting the user to the hosting location of the second content when the user clicks on the second link reference.

282. The ‘163 patent does not attempt to preempt every application of the idea of targeting internet advertising and web content to a user using an ISP, Server, or Wireless Network. For example, the prior art cited in the prosecution history of the ‘163 patent provides several examples of systems and methods of internet advertising and revenue sharing that are not preempted by the claims of the ‘163 patent.

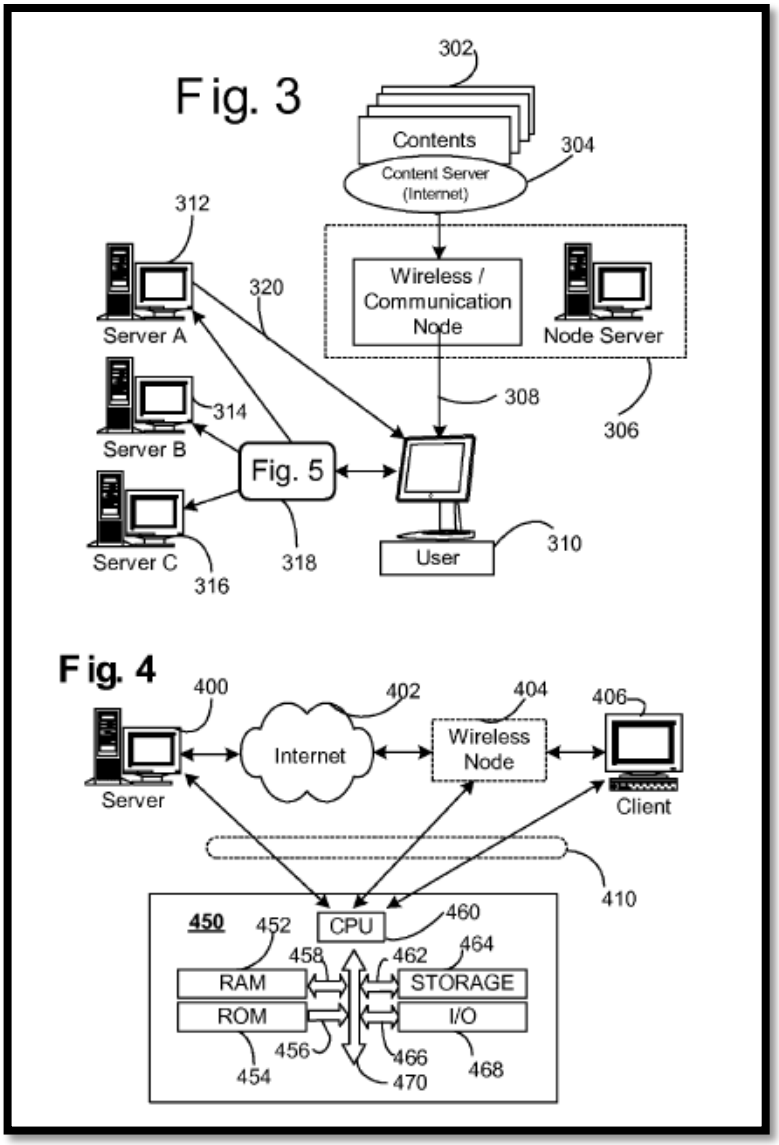
283. The ‘163 patent does not preempt the field of internet content targeting. For example, the ’163 patent includes inventive elements—embodied in specific claim limitations—that concretely circumscribe the patented invention and greatly limit its breadth. These inventive elements are not necessary or obvious tools for achieving internet content targeting, and they ensure that the claims do not preempt other techniques of compensating content providers for internet advertising. For example, the ‘163 patent describes numerous techniques for electronically parsing, formatting, and displaying related web content. The techniques inform the invention’s development but do not, standing alone, fall within the scope of its claims. For example, one or more claims of the ‘163 patent require: (1) content parsed into a plurality of objects; (2) indexing the plurality of objects; (3) using a server computer to identify related second content; (4) creating a first and second link reference; and (5) sending web content to replace first web content on a client computer. Moreover, the ‘163 patent does not claim, or attempt to preempt, the performance of an abstract business practice on the internet or using a conventional computer.

284. The ’163 patent claims systems and methods not merely for internet advertising and web content targeting, but for making the computer network itself more efficient. “[T]he present invention offers advantageous improvement over others Internet Service Provider servers since it is able to directly cooperate with the Indexing Server and wireless devices, a further advantage is that the Internet Service Provider server, the Indexing Server, wireless devices or

wireless-server devices of the present invention are able to associate other contents to the contents being served without interfering with content's integrity." '163 patent, col. 4:19-27.

285. The '163 patent claims systems and methods that "could not conceivably be performed in the human mind or pencil and paper." The claimed inventions in the '163 claims are rooted in computer technology and overcomes problems specifically arising in the realm of computer networks, for instance providing related content hosted on a web server.

286. The systems and methods claimed in the '163 patent were not a longstanding or fundamental economic practice at the time of patented inventions. Nor were they fundamental principles in ubiquitous use on the internet or computers in general. One or more claims of the '163 patent require a specific configuration of electronic devices, a network configuration, web content hosts, wireless nodes, a computer network interface, etc. These are meaningful limitations that tie the claimed methods and systems to specific machines. For example, the below diagrams from the '163 patent illustrates specific configurations of hardware disclosed in the patent.



'163 patent, Figs. 3 & 4.

2. U.S. Patent No. 7,971,198

287. U.S. Patent No. 7,971,198 ("the '198 patent") entitled, *Method for Global Resource Sharing Having Logically Linked Means and Integrated Functionality for Building Solutions*, was filed on June 8, 2005. UnoWeb is the owner by assignment of the '198 patent. A true and correct copy of the '198 patent is attached hereto as Exhibit J. The '198 patent relates to specific methods and systems for a resource sharing container having a logic-linking mechanism for logically linking program code to pages, pages to applications, and applications to solutions.

288. The ‘198 patent claims a technical solution to a problem unique to computer networks – sharing of page source code and settings parameters through linking at the global resource sharing level.

289. The ‘198 patent claims at least three important and concrete innovations that improve sharing of software logic code blocks: (1) a resource sharing container comprising a plurality of relational database tables, (2) virtually replicating an application resource for each retrieved application ID, and (3) rendering a web page by executing integrated page resources and code blocks of the virtually replicated application resource.

290. The ‘198 patent and its underlying patent application[133] have been cited by 18 United States patents and patent applications as relevant prior art. Specifically, patents issued to the following companies have cited the ‘198 patent as relevant prior art.

- International Business Machines Corporation
- Microsoft Corporation
- Midway Technology Company LLC
- UsableNet, Inc.

291. At the time of the inventions claimed in the ‘198 patent were conceived, existing systems failed to enable “software logic code blocks that can be logically linked and shared by any application and any solution at the resource level.” ‘193 patent, col. 1:49-51. It is the objective of the patent to enable the sharing of “settings parameters, foreign language translation, securities and other future solutions as well at the resource level and at a single global location.” *Id*., col: 2:11-14. Moreover, patents citing the ‘198 patent identify limitations in existing systems such as “[c]urrent development environments have an important limitation. They do not take into account the dependencies created by the moved/copied files.”[134]

292. The ‘198 patent is directed at solving a problem that arises from multiple users accessing an application over a computer network (e.g., linking a global application available

[133] *See* U.S. Patent App. No. 11/160,099.

[134] U.S. Patent No. 8,302,073, col. 1:44-46 (citing the ‘198 patent and assigned to IBM); *see also* U.S. Patent No. 8,495,570, col. 1:29-32 (“In many instances, only a subset of the application resources is appropriate for a given user. Developers do not have an efficient and automatic technique to partition application resources in order to limit the resources deployed to users.”).

over a network to a user's settings). "[B]y having a logically linking mechanism at the resource level, once a solution is integrated it can be virtually replicated by simply registering it to a different user." '198 patent, col. 3:58-61.

293. Although the systems and methods taught in the '198 patent have been adopted by leading businesses today, at the time of invention, the technologies taught in the '198 patent were innovative and novel. At the time the inventions disclosed in the '198 patent were conceived, there was a need for a "resource[] sharing container [that had] pieces of program code, settings, interfacing, rendering parameters, etc. [The resource sharing container] can be located in the database, user supplied files or user input." '198 patent, col. 4:5-8.

294. The '198 patent claims are not directed to a "method of organizing human activity," "fundamental economic practice long prevalent in our system of commerce," or "a building block of the modern economy." Instead, they are limited to a concretely circumscribed set of methods and systems that provide for global resource sharing through logically linking a resource sharing container.

295. The '198 patent claims are not directed to the broad concept/idea of "linking resources." Instead, the '198 patent claims are limited to a concretely circumscribed set of methods and systems for enabling a resource sharing container to be logically linked to specific users. These methods and systems are technologies unique to the internet age. It was a goal of the '198 patent to demonstrate a global resource sharing of logically linked software code blocks, application pages, and application pages' settings that can be shared in-house over a network or globally over the Internet without requiring any further programming efforts and without requiring recompiling application code. The solutions taught in the '198 patent (e.g., enabling global resource sharing using a logic-linking mechanism) reduce computer usage by allowing an application to be shared globally over a network.

296. The '198 patent claims are directed toward a solution rooted in computer technology and use technology unique to computers and computer networking to overcome a problem specifically arising in the realm of distributed computing. For example, one or more

claims of the ’198 patent require providing a resource sharing container comprising a plurality of relational database tables and executing the integrated page resources and code blocks of the virtually replicated application resource at the server.

297. One or more of the ‘198 patent claims require retrieving one or more application IDs associated with the one or more retrieved solution IDs and virtually replicating an application resource for each of the one or more retrieved application IDs. This use of virtual replication of application resources is directed to solving the problem of making an application available to multiple users over a computer network and allowing users to have specific settings for the application saved and replicated. Thus, one or more of the ‘198 patent claims are directed toward a problem specific to computer networks.

298. The preemptive effect of the claims of the ‘198 patent are concretely circumscribed by specific limitations. For example, claim 3 of the ‘198 patent requires:

> A server computing system configured to share software logic code blocks with an application that may be incorporated into a solution, the server computing system comprising:
>
> a processor;
>
> a memory coupled to the processor, wherein the memory comprises program instructions configured to:
>
> register a plurality of users with the server;
>
> provide each registered user with a user ID stored in the memory;
>
> provide a resource sharing container comprising a plurality of relational database tables including a user resources table, an application resources table, and a solution resources table;
>
> wherein the user resources table associates each of the user IDs with at least one of a plurality of solution IDs and associates each of the solution IDs with one or more of a plurality of application IDs;
>
> wherein the application resources table associates each of the application IDs and the solution IDs with a plurality of logic links and logic nodes, wherein each of the logic links identifies a page resource stored in the solution resource table and each of the logic nodes identifies a code block;
>
> receive a login request from a first user of the plurality of registered users over a network;
>
> locate a first user ID of the first user in the user resources table and retrieving the one or more solution IDs corresponding to the first user ID;
>
> retrieve the one or more application IDs associated with the one or more retrieved solution IDs and virtually replicate an application resource for

each of the one or more retrieved application IDs, wherein virtually replicating the application resource comprises:

accessing the application resources table and retrieving the logic links and logic nodes associated with the retrieved application ID;

loading one or more page resources from the solution resources table according to a database query formulated from the retrieved logic links; and

integrating code blocks identified by the retrieved logic nodes into the loaded page resources; and

execute the integrated page resources and code blocks of the virtually replicated application resource at the server according to input received from the first user to render one or more web pages at the computer operated by the first user

299. The ‘198 patent does not attempt to preempt every application of the idea of resource sharing over a network. For example, the prior art cited in the prosecution history of the ‘198 patent provides several examples of systems and methods of resource sharing that are not preempted by the claims of the ‘198 patent.

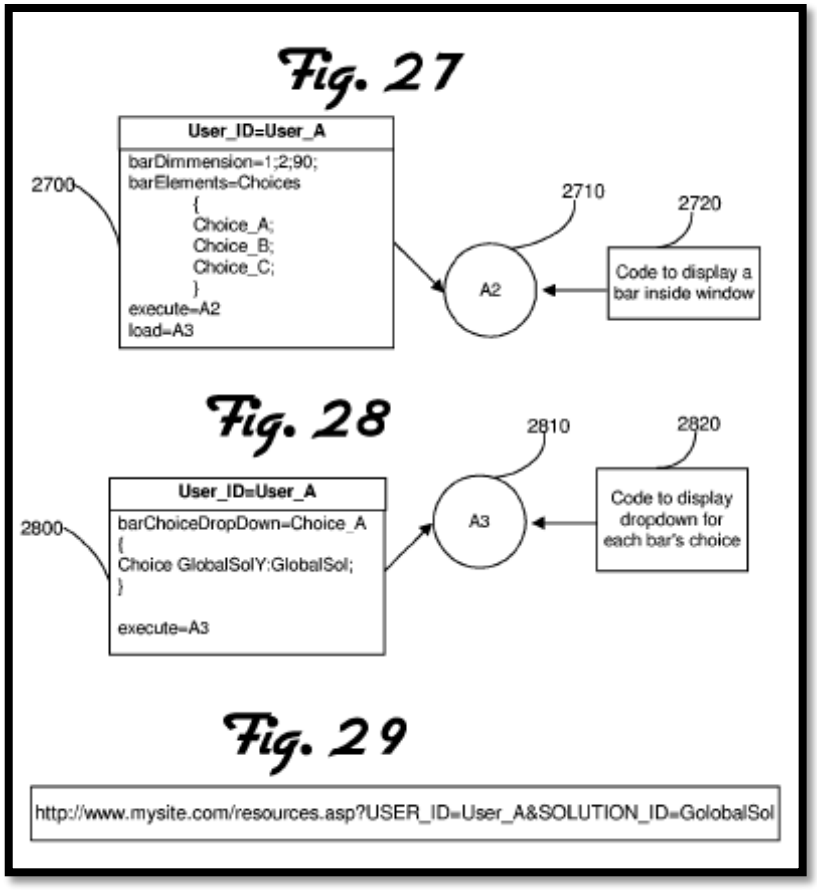
300. The ‘198 patent does not preempt the field of global resource sharing over a computer network. For example, the ’198 patent includes inventive elements—embodied in specific claim limitations—that concretely circumscribe the patented invention and greatly limit its breadth. These inventive elements are not necessary or obvious tools for achieving global resource sharing, and they ensure that the claims do not preempt other techniques of compensating content providers for internet advertising. For example, one or more claims of the ‘198 patent require: (1) an application resources table associated with application IDs and solution IDs wherein each of the logic links identifies a page resource stored in the solution resource table and each of the logic nodes identifies a code block; (2) retrieving application IDs associated with a retrieved solution ID and virtually replicating an application resource for each of the retrieved application IDs; and (3) executing the integrated page resources and code blocks of the virtually replicated application resource on a server.

301. The ‘198 patent does not claim, or attempt to preempt, the performance of an abstract business practice on the internet or using a conventional computer. The ’198 patent claims systems and methods not merely for managing global resource sharing over a computer

network, but for making the computer network itself more efficient. "By having code-logic blocks that are logically linked to pages, it allows any common used code block to be integrated in more than one page, thus, ***reducing code replication and maintenance***." '198 patent, col. 5:49-52 (emphasis added).

302. The '198 patent claims systems and methods that "could not conceivably be performed in the human mind or pencil and paper." The claimed inventions in the '198 claims are rooted in computer technology and overcomes problems specifically arising in the realm of computer networks. One or more claim elements (*e.g.*, executing the integrated page resources and code blocks of the virtually replicated application resource at the server) are unique to computer systems and have no analog outside of a computer network.

303. The systems and methods claimed in the '198 patent were not a longstanding or fundamental economic practice at the time of patented inventions. Nor were they fundamental principles in ubiquitous use on the internet or computers in general. One or more claims of the '198 patent require a specific configuration of electronic devices, a network configuration, external databases, virtually replicated application resources, a computer network interface, etc. These are meaningful limitations that tie the claimed methods and systems to specific machines. For example, the below figures from the '198 patent illustrate specific configurations of hardware disclosed in the patent.



'198 patent, Figs. 27-29.

COUNT I
INFRINGEMENT OF U.S. PATENT NO. 7,941,345

304. UnoWeb references and incorporates by reference the preceding paragraphs of this Complaint as if fully set forth herein.

305. LinkedIn makes, uses, sells, and/or offers for sale in the United States products and/or services for web content management.

306. LinkedIn makes, sells, offers to sell, imports, and/or uses the LinkedIn website and mobile website (*e.g.*, http://www.LinkedIn.com, http://m.LinkedIn.com) and LinkedIn mobile applications (*e.g.*, LinkedIn for iOS native application; LinkedIn for Android native application; LinkedIn for Windows Mobile native application) (collectively, the "LinkedIn '345 Product").

307. On information and belief, the LinkedIn ‘345 Product includes web content management software.

308. On information and belief, LinkedIn Espresso is a fault-tolerant NoSQL database that powers LinkedIn applications including Member Profile, InMail (LinkedIn's member-to-member messaging system), and the LinkedIn Homepage and mobile applications.

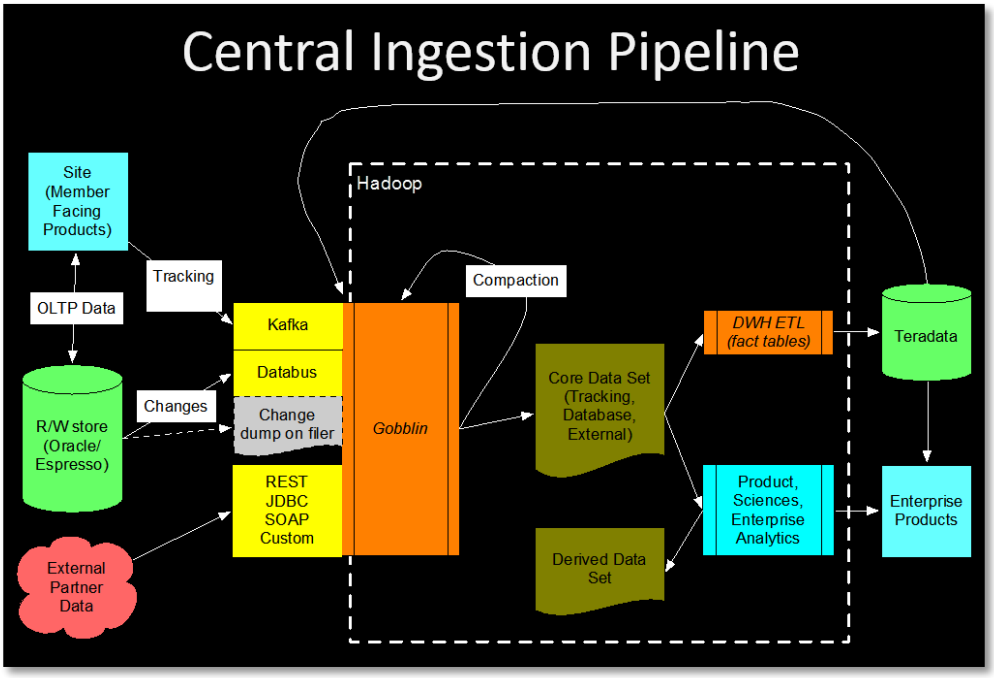
309. On information and belief, the LinkedIn ‘345 Product is available to businesses and individuals throughout the United States.

310. On information and belief, LinkedIn developed and uses Apache Kafka, which is a message broker designed to provide a platform for real-time handling by data feeds.

311. On information and belief, the LinkedIn ‘345 Product is provided to businesses and individuals located in the Eastern District of Texas.

312. On information and belief, the LinkedIn ‘345 Product retrieves third-party-supplied content comprising first objects describing a product or service. The LinkedIn ‘345 Product retrieves content from a third-party-hosting server.

313. On information and belief, the LinkedIn ‘345 Product enables the incorporation of third-party supplied content. The below slide from a presentation by Lin Qiao (at the time was Technical Lead at LinkedIn managing LinkedIn’s unified data ingestion framework) shows that LinkedIn incorporates third party data (“external data sources”).



Lin Qiao, *Gobblin' Big Data with Ease*, DATA ANALYTICS INFRA @ LINKEDIN at 9 (2014).

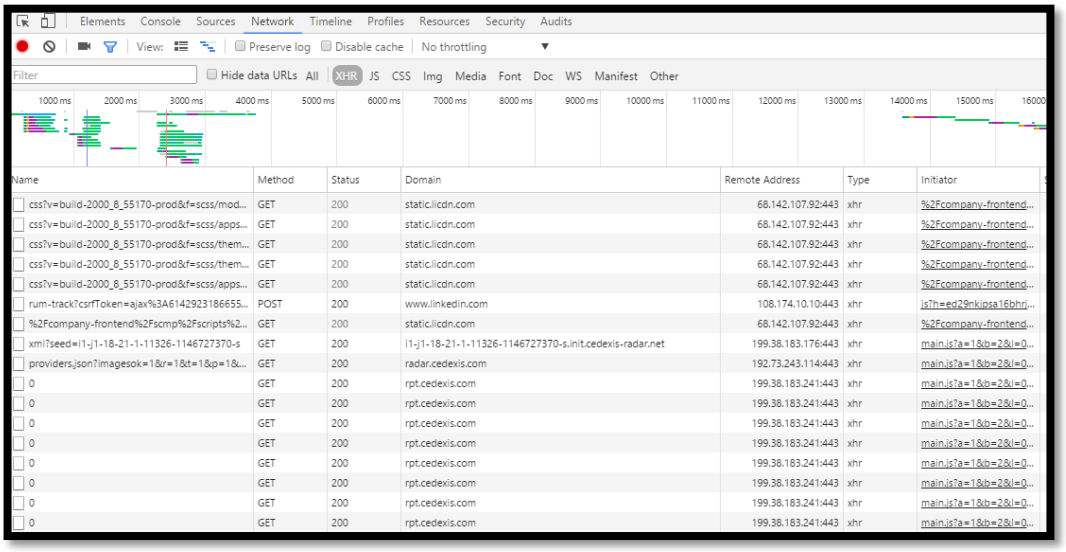
314. On information and belief, the LinkedIn '345 Product hosts on LinkedIn computers said third-party-supplied content. LinkedIn reads third-party-supplied content and makes third-party supplied content available to users.

315. On information and belief, the LinkedIn '345 Product enables the transmitting of a web page for display on the client computer system in response to a request from the client computer system. The web pages that are transmitted by LinkedIn include third-party-supplied content.

316. On information and belief, LinkedIn gathers third-party-supplied content from servers. For example, when the LinkedIn '345 Product is requested to load company websites, the LinkedIn website/web app virtual web server computer retrieves third-party supplied content (e.g., third-party supplied advertising content; RSS Feeds, third-party supplied image content; third-party supplied textual (e.g., news, blog, microblog, etc.) content; etc.) comprising first objects describing a product or service (e.g., advertising, image, video, audio, gaming, e-commerce, and/or textual (e.g., news, blog, microblog) product or service).

Microsoft's LinkedIn Page - Recent Updates, LINKEDIN WEBSITE (last visited March 21, 2016).

317. On information and belief, the below screen capture shows that elements in a profile page are retrieved using the "GET" method.



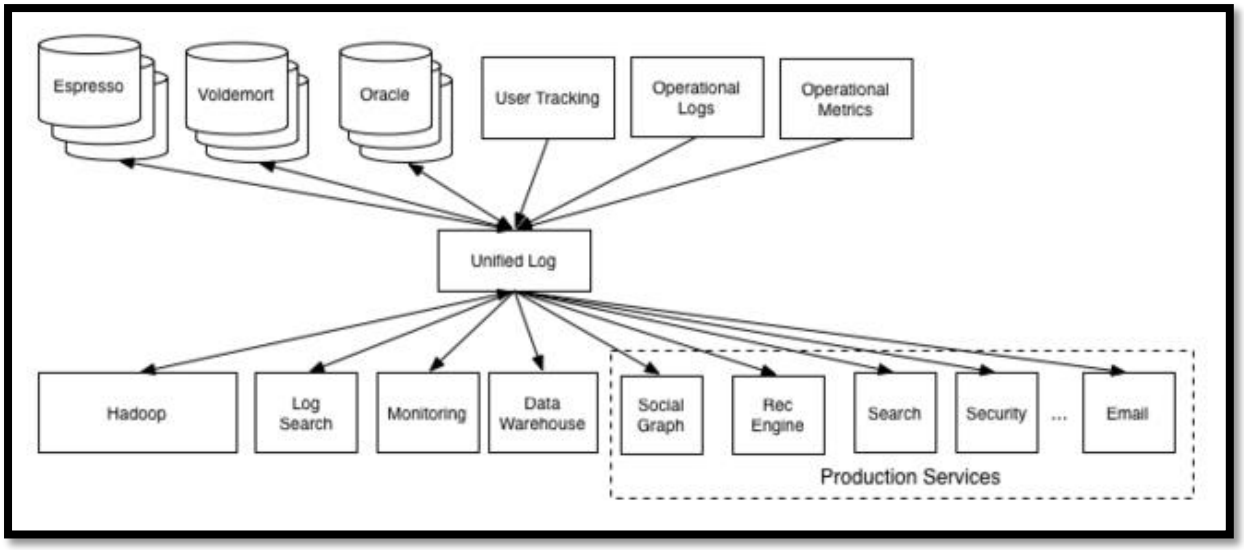
LinkedIn Page - Network Developer Tools, LINKEDIN WEBPAGE (last visited March 21, 2016) (log of elements loaded on a LinkedIn user's newsfeed that is logged by a browser in network developer tools).

318. On information and belief, the LinkedIn '345 Product hosts, on the server computer, third-party-supplied content, said hosting comprises reading third-party supplied content and making said third-party supplied content available for access by the user. For

example, LinkedIn hosts on the LinkedIn webpage/web app virtual web server computer the third-party-supplied content (e.g., third-party supplied advertising content; third-party supplied image content; third-party RSS feeds; third-party supplied textual (e.g., news, blog, microblog, etc.) content; etc.), the hosting comprising reading the third-party supplied content and making the third-party supplied content available for access by the user.

319. On information and belief, LinkedIn transmits a web page for display on the client computer system in response to a request from the client computer system, the web page comprising the third-party-supplied content.

320. On information and belief, LinkedIn engineers have stated: "In addition to our internal data, we also ingest data from many different external data sources. Some of these data sources are platforms themselves like Salesforce, Google, Facebook and Twitter. Other data sources include external services that we use for marketing purposes."[135]



Jay Kreps, *The Log: What Every Software Engineer Should Know About Real-Time Data's Unifying Abstraction*, LINKEDIN ENGINEERING BLOG (December 16, 2013), available at: https://engineering.linkedin.com/distributed-systems/log-what-every-software-engineer-should-know-about-real-time-datas-unifying ("The idea is that adding a new data system—be it a data source or a data destination—should create integration work only to connect it to a single pipeline instead of each consumer of data.").

[135] Shirshanka Das and Lin Qiao, *Gogglin' Big Data With Ease*, LINKEDIN ENGINEERING BLOG (November 25, 2014), available at: https://engineering.linkedin.com/data-ingestion/gobblin-big-data-ease.

321. On information and belief, the LinkedIn '345 Product selects a guiding means from third-party-supplied content for use in identifying related second content. For example, the LinkedIn webpage/web app virtual web server computer selects guiding means (e.g., Open API-compatible metadata/tag information/code) from the third-party-supplied content for use in identifying related second content.

322. On information and belief, if a developer wants to improve the results when content is shared on LinkedIn, one can use Open Graph's standard <meta> tags.[136]

323. On information and belief, the LinkedIn '345 Product identifies related second content using the guiding means, wherein the related second content comprises an object that is related to an object within the first objects of the third-party-supplied content. For example, the LinkedIn website/web app virtual web server computer uses the guiding means (e.g., Open Graph API-compatible metadata/tag information/code) for an object within the first objects of the third-party-supplied content (e.g., third-party supplied advertising content; third-party supplied image content; third-party supplied RSS content; third-party supplied textual (e.g., news, blog, microblog, etc.) content; etc.) to identify the related second content, wherein the related second content comprises an object (e.g., a LinkedIn object such as company, person, interest group, etc.) that is related to an object within the first objects of the third-party-supplied content.

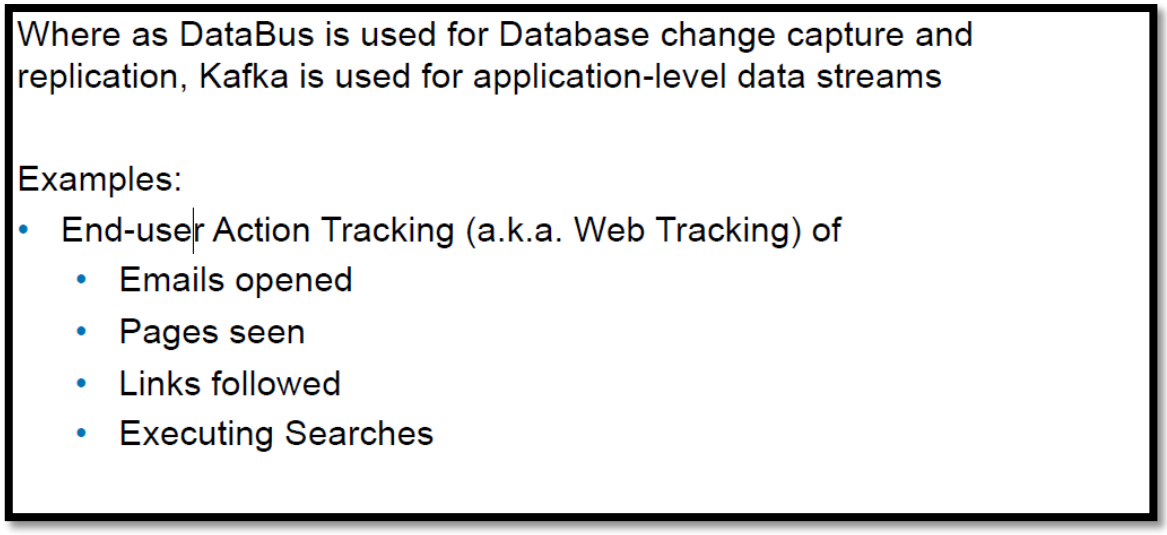
324. On information and belief, the LinkedIn '345 Product identifies the related second content using the guiding means, wherein the related second content comprises an object that is related to an object within the first objects of the third-party-supplied content. For example, the LinkedIn website/web app virtual web server computer uses the guiding means (e.g., Open Graph API-compatible metadata/tag information/code) for an object within the first objects of

[136] *Share on LinkedIn*, LINKEDIN FOR DEVELOPERS (last visited March 22, 2016), available at: https://developer.linkedin.com/docs/share-on-linkedin ("If Open Graph tags are present, LinkedIn's crawler will not have to rely on it's own analysis to determine what content will be shared, which improves the likelihood that the information that is shared is exactly what you intended.").

the third-party-supplied content (e.g., third-party supplied advertising content; third-party supplied image content; third-party supplied RSS content; third-party supplied textual (e.g., news, blog, microblog, etc.) content; etc.) to identify the related second content, wherein the related second content comprises an object (e.g., a LinkedIn object such as company, person, interest group, etc.) that is related to an object within the first objects of the third-party-supplied content.

325. On information and belief, the LinkedIn '345 Product includes the second content in the web page to form a second web page, where the including is performed by the server computer. For example, the LinkedIn website/web app includes the second content in the web page to form a second web page, the including being performed by the LinkedIn website/web app virtual web server computer. The below screenshot shows an exemplar of the underlying source code on a LinkedIn webpage where the related second content is included in a web page wherein the including is performed by the server computer.

326. On information and belief, presentations from LinkedIn have described LinkedIn's tracking of "Emails opened," "Pages seen," "Links followed," and "Executed Searches."



Sid Anand, *Data Infrastructure @ LinkedIn*, QCON LONDON 2012 at 33 (2012).

327. On information and belief, the LinkedIn '345 Product sends the second web page to the client computer system for display on the client computer with the web page previously transmitted. For example, the LinkedIn website/web app virtual web server computer sends the second web page to the to the client computer for display on the client computer with the web page previously transmitted.

328. On information and belief, LinkedIn has directly infringed and continues to directly infringe the '345 patent by, among other things, making, using, offering for sale, and/or selling products and/or services for web content management, including but not limited to, LinkedIn '345 Product, which includes infringing web content management technologies.

329. By making, using, testing, offering for sale, and/or selling web content management products and services, including but not limited to the LinkedIn '345 Product, LinkedIn has injured UnoWeb and is liable to UnoWeb for directly infringing one or more claims of the '345 patent, including at least claim 1, pursuant to 35 U.S.C. § 271(a).

330. On information and belief, LinkedIn also indirectly infringes the '345 patent by actively inducing infringement under 35 U.S.C. § 271(b), at least as of the date of service of this Complaint.

331. On information and belief, LinkedIn has had knowledge of the '345 patent since at least service of this Complaint or shortly thereafter, and on information and belief, LinkedIn knew of the '345 patent and knew of its infringement, including by way of this lawsuit.

332. On information and belief, LinkedIn intended to induce patent infringement by third-party customers and users of the LinkedIn '345 Product and had knowledge that the inducing acts would cause infringement or was willfully blind to the possibility that its inducing acts would cause infringement. LinkedIn specifically intended and was aware that the normal and customary use of the accused products would infringe the '345 patent. LinkedIn performed the acts that constitute induced infringement, and would induce actual infringement, with the knowledge of the '345 patent and with the knowledge that the induced acts would constitute infringement. For example, LinkedIn provides the LinkedIn '345 Product that has the capability

of operating in a manner that infringe one or more of the claims of the '345 patent, including at least claim 1, and LinkedIn further provides documentation and training materials that cause customers and end users of the LinkedIn '345 Product to utilize the product in a manner that directly infringe one or more claims of the '345 patent. By providing instruction and training to customers and end-users on how to use the LinkedIn '345 Product in a manner that directly infringes one or more claims of the '345 patent, including at least claim 1, LinkedIn specifically intended to induce infringement of the '345 patent. On information and belief, LinkedIn engaged in such inducement to promote the sales of the LinkedIn '345 Product, *e.g.,* through LinkedIn tutorials, product support, marketing materials, and training materials to actively induce the users of the accused products to infringe the '345 patent.[137] Accordingly, LinkedIn has induced and continues to induce users of the accused product to use the accused product in its ordinary and customary way to infringe the '345 patent, knowing that such use constitutes infringement of the '345 patent.

333. To the extent applicable, the requirements of 35 U.S.C. § 287(a) have been met with respect to the '345 patent.

334. As a result of LinkedIn's infringement of the '345 patent, UnoWeb has suffered monetary damages, and seeks recovery in an amount adequate to compensate for LinkedIn's infringement, but in no event less than a reasonable royalty for the use made of the invention by

[137] *Share on LinkedIn*, LINKEDIN FOR DEVELOPERS WEBSITE (last visited March 22, 2016), *available at:* https://developer.linkedin.com/docs/share-on-linkedin; *The Open Graph Protocol*, OPEN GRAPH WEBSITE (last visited March 22, 2016), *available at:* http://ogp.me/; Sriram Sankar and Asif Makhani, *Did You Mean "Galene,"* LINKEDIN ENGINEERING WEBSITE (June 5, 2014), *available at*: https://engineering.linkedin.com/search/did-you-mean-galene; *LinkedIn Basics*, LINKEDIN HELP CENTER (last visited March 22, 2016), *available at:* https://www.linkedin.com/help/linkedin/topics/6001/6002; *LinkedIn Display Advertising*, LINKIN BUSINESS SOLUTIONS WEBPAGE (last visited March 22, 2016), *available at:* https://business.linkedin.com/me/marketing-solutions/display-advertising; *LinkedIn Gobblin - Universal Data Ingestion Framework for Hadoop*, GITHUB WEBSITE (last visited March 22, 2016), *available at*: https://github.com/linkedin/gobblin; Praveen Neppalli Naga, *Real-time Analytics at Massive Scale with Pinot*, LINKEDIN ENGINEERING WEBSITE (September 29, 2014), available at: https://engineering.linkedin.com/analytics/real-time-analytics-massive-scale-pinot.

LinkedIn together with interest and costs as fixed by the Court, and UnoWeb will continue to suffer damages in the future unless LinkedIn's infringing activities are enjoined by this Court.

335. Unless a permanent injunction is issued enjoining LinkedIn and its agents, servants, employees, representatives, affiliates, and all others acting or in active concert therewith from infringing the '345 patent, UnoWeb will be greatly and irreparably harmed.

COUNT II
INFRINGEMENT OF U.S. PATENT NO. 8,065,386

336. UnoWeb references and incorporates by reference the preceding paragraphs of this Complaint as if fully set forth herein.

337. LinkedIn makes, uses, sells, and/or offers for sale in the United States products and/or services for web content management.

338. LinkedIn makes, sells, offers to sell, imports, and/or uses the LinkedIn website and mobile website (*e.g.*, http://www.LinkedIn.com, http://m.LinkedIn.com) and LinkedIn mobile applications (*e.g.*, LinkedIn for iOS native application; LinkedIn for Android native application; LinkedIn for Windows Mobile native application) (collectively, the "LinkedIn '386 Product").

339. On information and belief, the LinkedIn '386 Product includes web content management software.

340. On information and belief, the LinkedIn '386 Product is available to businesses and individuals throughout the United States.

341. On information and belief, the LinkedIn '386 Product is provided to businesses and individuals located in the Eastern District of Texas.

342. On information and belief, the LinkedIn '386 Product receives third-party-supplied first content, wherein said receiving is performed by the server computer.

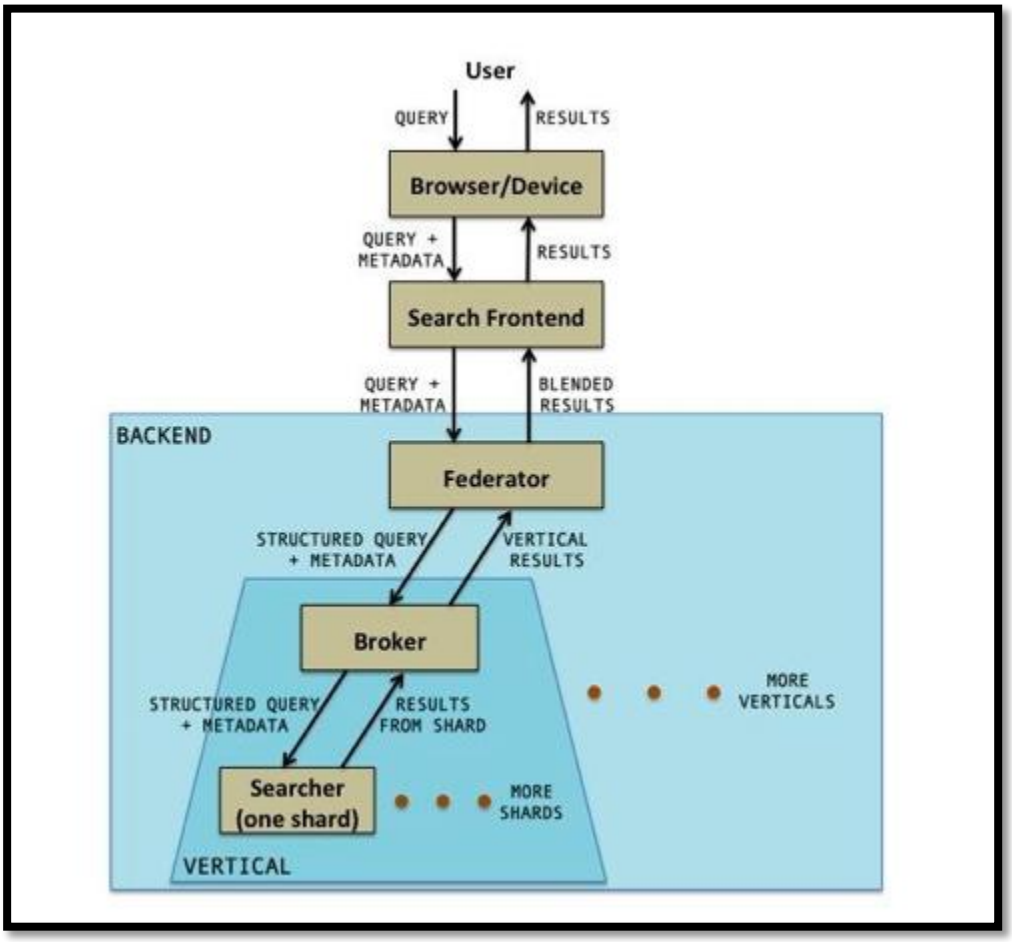
343. On information and belief, LinkedIn uses indexing technology including a program called, "Galene." In the past, LinkedIn has used search technologies, including a program entitled, "Lucene."[138]

344. On information and belief, LinkedIn's Galene system has been described by LinkedIn engineers as "having a more sophisticated relevance algorithm that includes offline static rank computation, personalization through factors such as connection degree, and approximate name matching. Previously, it was not possible to incorporate such relevance functionality."[139]

345. On information and belief, the below infrastructure diagram shows at a high level how Galene indexes content in the LinkedIn system.

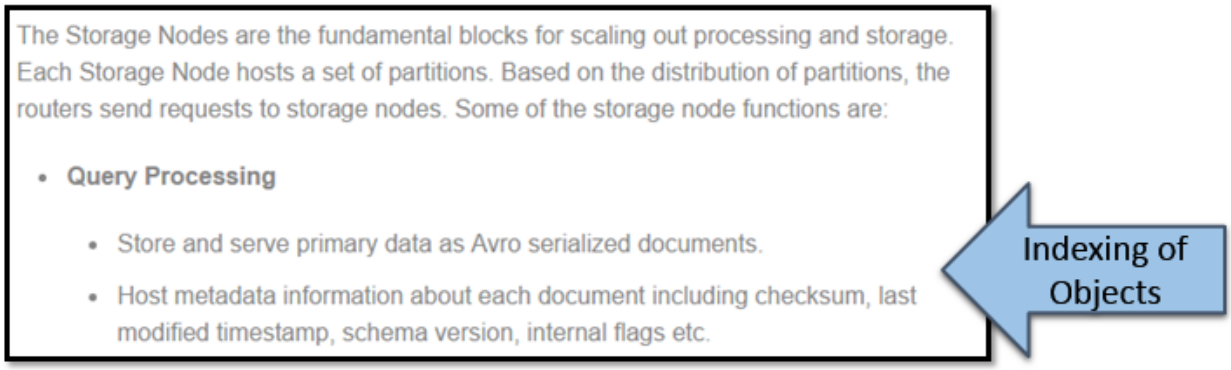
[138] Sid Anand, *Data Infrastructure @ LinkedIn*, QCON LONDON 2012 at 10-11 (2012).

[139] Sriram Sankar and Asif Makhani, *Did You Mean "Galene,"* LINKEDIN ENGINEERING WEBSITE (June 5, 2014), *available at*: https://engineering.linkedin.com/search/did-you-mean-galene.



Jonathan Vanian, *LinkedIn Upgrades Its Search Engine and Ditches an Array of Open Source Extensions*, GIGAOM.COM WEBSITE (June 5, 2014).

346. On information and belief, the LinkedIn '386 Product indexes third-party-supplied content. For example, LinkedIn indexes a plurality of objects using LinkedIn API-compatible metadata (e.g., Open Graph API data, keywords, API data, etc.) within the objects. This metadata includes associating content with an "id" (a unique identifying value for a member, unique identifier for a recommendation, a unique internal numeric company identifier, etc.).



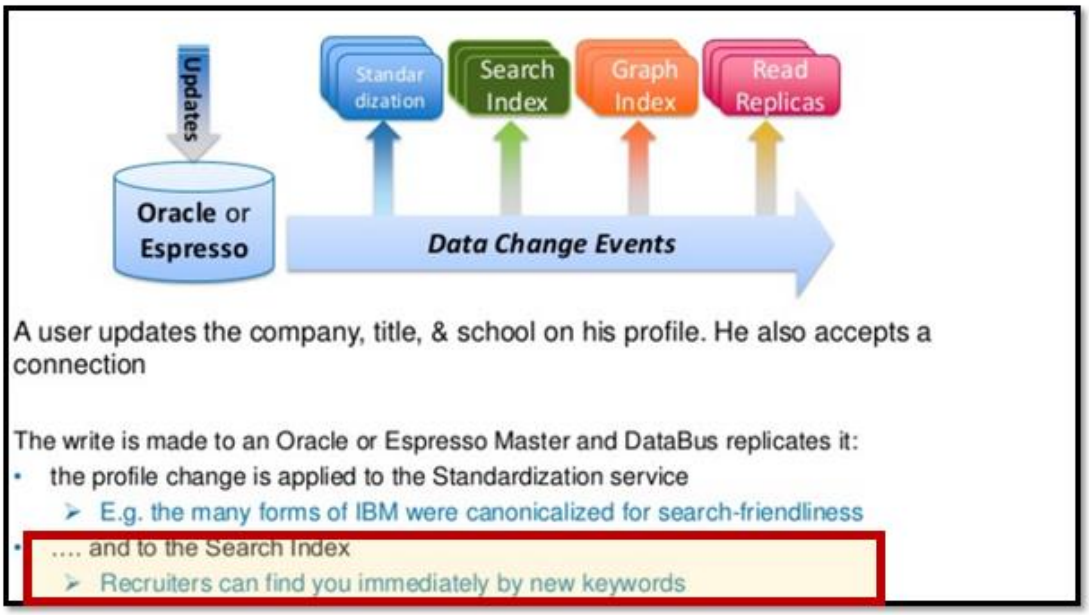
Aditya Auradkar, *Introducing Espresso - Linkedin's Hot New Distributed Document Store,* LINKEDIN ENGINEERING WEBSITE (January 21, 2015).

347. On information and belief, LinkedIn takes objects (e.g., content) provided by third-parties and indexes the objects generating compatible metadata including keywords related to the indexed content.

348. On information and belief, LinkedIn indexes objects and stores the related metadata in a database.

349. On information and belief, the LinkedIn '386 Product indexes content using keywords. "Use the Job Search API to find jobs using keywords, company, location, or some other criteria. It returns a collection of matching jobs. Each entry can contain much of the information available on the job listing."[140]

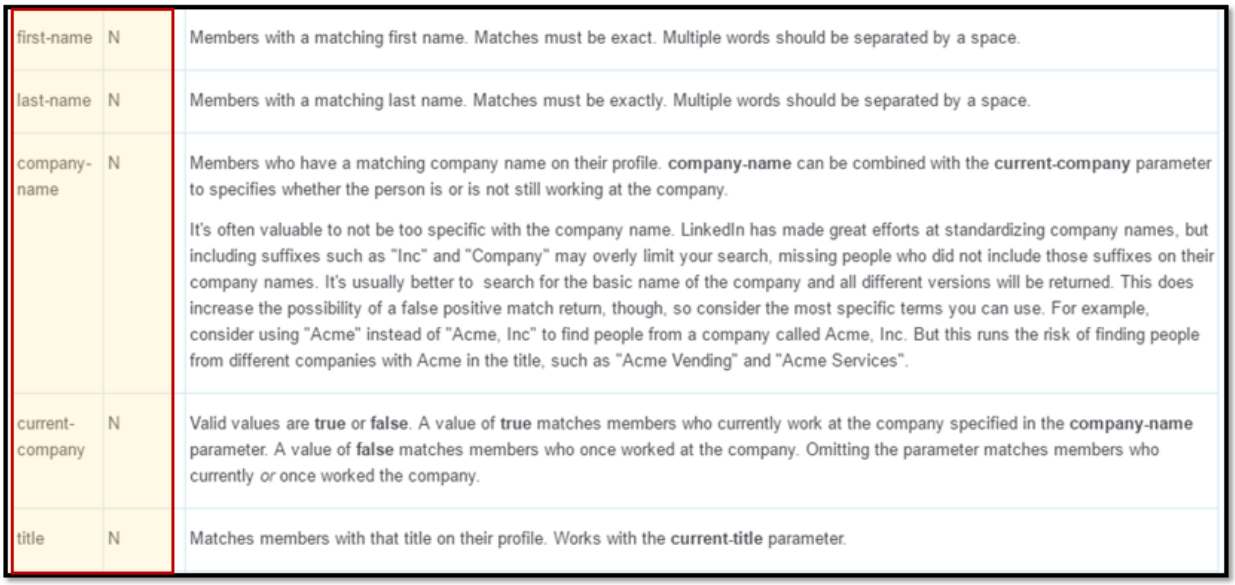
[140] *LinkedIn Job Search API,* LINKEDIN FOR DEVELOPERS (last visited March 22, 2016), available at: https://developer-programs.linkedin.com/documents/job-search-api



Hien Luu and Sid Anand, *LinkedIn Segmentation & Targeting Platform: A Big Data Application*, HADOOP SUMMIT at 11 (June 2013)

350. On information and belief, the LinkedIn '386 Product forms a database table containing objects in the plurality of objects, wherein forming is performed by the server computer. For example, the LinkedIn website/web app virtual web server computer forms a database table (e.g., FQL, SQL-style, and/or NoSQL database table) containing objects in the plurality of objects.

351. On information and belief, the LinkedIn '386 Product indexes content and stores index information such as "name," "company," "school-name," etc. The below excerpt from LinkedIn's documentation contains a list of index information that is associated with indexed content.



first-name	N	Members with a matching first name. Matches must be exact. Multiple words should be separated by a space.
last-name	N	Members with a matching last name. Matches must be exactly. Multiple words should be separated by a space.
company-name	N	Members who have a matching company name on their profile. **company-name** can be combined with the **current-company** parameter to specifies whether the person is or is not still working at the company. It's often valuable to not be too specific with the company name. LinkedIn has made great efforts at standardizing company names, but including suffixes such as "Inc" and "Company" may overly limit your search, missing people who did not include those suffixes on their company names. It's usually better to search for the basic name of the company and all different versions will be returned. This does increase the possibility of a false positive match return, though, so consider the most specific terms you can use. For example, consider using "Acme" instead of "Acme, Inc" to find people from a company called Acme, Inc. But this runs the risk of finding people from different companies with Acme in the title, such as "Acme Vending" and "Acme Services".
current-company	N	Valid values are **true** or **false**. A value of **true** matches members who currently work at the company specified in the **company-name** parameter. A value of **false** matches members who once worked at the company. Omitting the parameter matches members who currently *or* once worked the company.
title	N	Matches members with that title on their profile. Works with the **current-title** parameter.

LinkedIn People Search API, LINKEDIN FOR DEVELOPERS (last visited March 2016), available at: https://developer.linkedin.com/docs/v1/people/people-search-api (highlighted box showing the fields generated by LinkedIn).

352. On information and belief, the LinkedIn '386 Product accesses the database table and selects an object in the plurality of objects using the index, wherein selecting is performed by the server computer. For example, the LinkedIn website/web app virtual web server computer accesses the database table (*e.g.*, the FQL, SQL-style, and/or NoSQL database table) and selects an object in the plurality of objects using the index.

353. On information and belief, the LinkedIn '386 Product identifies a second content by finding a relationship between the second content and the object selected, wherein identifying is performed by the server computer. For example, the LinkedIn website/web app virtual web server computer identifies a second content by finding a relationship between the second content and the object selected.

354. On information and belief, LinkedIn documentation describes how "jobs you may be interested in" are identified by LinkedIn by inclusion of code that contains the class "in.js."

"The Jobs You May Be Interested In feature shows jobs posted on LinkedIn that match your profile in some way."[141]

Jobs You Might Be Interested In Plugin Generator, LINKEDIN FOR DEVELOPERS (last visited March 2016), available at: https://developer.linkedin.com/plugins/jymbii (annotation showing how inclusion of the "in.js" class enables the identification of related content).

355. On information and belief, the LinkedIn '386 Product hosts on the LinkedIn servers third-party-supplied content.

356. On information and belief, the LinkedIn '386 Product reads third-party-supplied content and makes third-party-supplied content available to users.

357. LinkedIn documentation describes that LinkedIn finds related content using relationships between the indexed objects. These relationships are used to retrieve related second content.

358. On information and belief, the LinkedIn '386 Product sends second content for receipt and display on the client computer, wherein sending is performed by the server computer. For example, the inclusion of the "in.js" class within a webpage will return for display on the client computer content related to the user's profile. "Plugins are a quick way to drop LinkedIn

[141] *Jobs You May Be Interested In – Overview*, LINKEDIN HELP CENTER (last visited March 22, 2016), available at: https://www.linkedin.com/help/linkedin/answer/11783/jobs-you-may-be-interested-in---overview

functionality into your website. Use the tools below to automatically generate customized JavaScript code that you can copy and paste directly in to your website in minutes."[142]

359. On information and belief, the LinkedIn '386 Product enables the transmitting of a web page for display on the client computer system in response to a request from the client computer system. The web pages that are transmitted by LinkedIn include third-party-supplied content.

360. On information and belief, LinkedIn has directly infringed and continues to directly infringe the '386 patent by, among other things, making, using, offering for sale, and/or selling products and/or services for web content management, including but not limited to, the LinkedIn '386 Product, which includes infringing web content management technologies.

361. By making, using, testing, offering for sale, and/or selling web content management products and services, including but not limited to the LinkedIn '386 Product, LinkedIn has injured UnoWeb and is liable to UnoWeb for directly infringing one or more claims of the '386 patent, including at least claim 1, pursuant to 35 U.S.C. § 271(a).

362. On information and belief, LinkedIn also indirectly infringes the '386 patent by actively inducing infringement under 35 U.S.C. § 271(b), at least as of the date of service of this Complaint.

363. On information and belief, LinkedIn has had knowledge of the '386 patent since at least service of this Complaint or shortly thereafter, and on information and belief, LinkedIn knew of the '386 patent and knew of its infringement, including by way of this lawsuit.

364. On information and belief, LinkedIn intended to induce patent infringement by third-party customers and users of the LinkedIn '386 Product and had knowledge that the inducing acts would cause infringement or was willfully blind to the possibility that its inducing acts would cause infringement. LinkedIn specifically intended and was aware that the normal and customary use of the accused products would infringe the '386 patent. LinkedIn performed

[142] *LinkedIn Plugins*, LINKEDIN FOR DEVELOPERS (last visited March 2016), available at: https://developer.linkedin.com/plugins.

the acts that constitute induced infringement, and would induce actual infringement, with the knowledge of the '386 patent and with the knowledge that the induced acts would constitute infringement. For example, LinkedIn provides the LinkedIn '386 Product that has the capability of operating in a manner that infringes one or more of the claims of the '386 patent, including at least claim 1, and LinkedIn further provides documentation and training materials that cause customers and end users of the LinkedIn '386 Product to utilize the product in a manner that directly infringe one or more claims of the '386 patent. By providing instruction and training to customers and end-users on how to use the LinkedIn '386 Product in a manner that directly infringes one or more claims of the '386 patent, including at least claim 1, LinkedIn specifically intended to induce infringement of the '386 patent. On information and belief, LinkedIn engaged in such inducement to promote the sales of the LinkedIn '386 Product, *e.g.,* through LinkedIn user guides, product support, marketing materials, and training materials to actively induce the users of the accused products to infringe the '386 patent.[143] Accordingly, LinkedIn has induced and continues to induce users of the accused product to use the accused product in its ordinary and customary way to infringe the '386 patent, knowing that such use constitutes infringement of the '386 patent.

365. To the extent applicable, the requirements of 35 U.S.C. § 287(a) have been met with respect to the '386 patent.

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[143] *Jobs You May Be Interested In – Overview*, LinkedIn Help Center (last visited March 22, 2016), available at: https://www.linkedin.com/help/linkedin/answer/11783/jobs-you-may-be-interested-in---overview*; Share on LinkedIn*, LINKEDIN FOR DEVELOPERS WEBSITE (last visited March 22, 2016), *available at:* https://developer.linkedin.com/docs/share-on-linkedin; *The Open Graph Protocol*, OPEN GRAPH WEBSITE (last visited March 22, 2016), *available at:* http://ogp.me/; Sriram Sankar and Asif Makhani, *Did You Mean "Galene,"* LINKEDIN ENGINEERING WEBSITE (June 5, 2014), *available at*: https://engineering.linkedin.com/search/did-you-mean-galene; *LinkedIn Basics*, LINKEDIN HELP CENTER (last visited March 22, 2016), *available at:* https://www.linkedin.com/help/linkedin/topics/6001/6002; *LinkedIn Display Advertising*, LINKIN BUSINESS SOLUTIONS WEBPAGE (last visited March 22, 2016), *available at:* https://business.linkedin.com/me/marketing-solutions/display-advertising; *LinkedIn Gobblin - Universal Data Ingestion Framework for Hadoop*, GITHUB WEBSITE (last visited March 22, 2016), *available at*: https://github.com/linkedin/gobblin; Praveen Neppalli Naga, *Real-time Analytics at Massive Scale with Pinot*, LINKEDIN ENGINEERING WEBSITE (September 29, 2014), available at: https://engineering.linkedin.com/analytics/real-time-analytics-massive-scale-pinot.

366. As a result of LinkedIn's infringement of the '386 patent, UnoWeb has suffered monetary damages, and seeks recovery in an amount adequate to compensate for LinkedIn's infringement, but in no event less than a reasonable royalty for the use made of the invention by LinkedIn together with interest and costs as fixed by the Court, and LinkedIn will continue to suffer damages in the future unless LinkedIn's infringing activities are enjoined by this Court.

367. Unless a permanent injunction is issued enjoining LinkedIn and its agents, servants, employees, representatives, affiliates, and all others acting or in active concert therewith from infringing the '386 patent, UnoWeb will be greatly and irreparably harmed.

COUNT III
INFRINGEMENT OF U.S. PATENT NO. 8,307,047

368. UnoWeb references and incorporates by reference the preceding paragraphs of this Complaint as if fully set forth herein.

369. LinkedIn makes, uses, sells, and/or offers for sale in the United States products and/or services for web content management.

370. LinkedIn makes, sells, offers to sell, imports, and/or uses the LinkedIn website and mobile website (*e.g.*, http://www.LinkedIn.com, http://m.LinkedIn.com) and LinkedIn mobile applications (*e.g.*, LinkedIn for iOS native application; LinkedIn for Android native application; LinkedIn for Windows Mobile native application) (collectively, the "LinkedIn '047 Product").

371. On information and belief, the LinkedIn '047 Product includes web content management software.

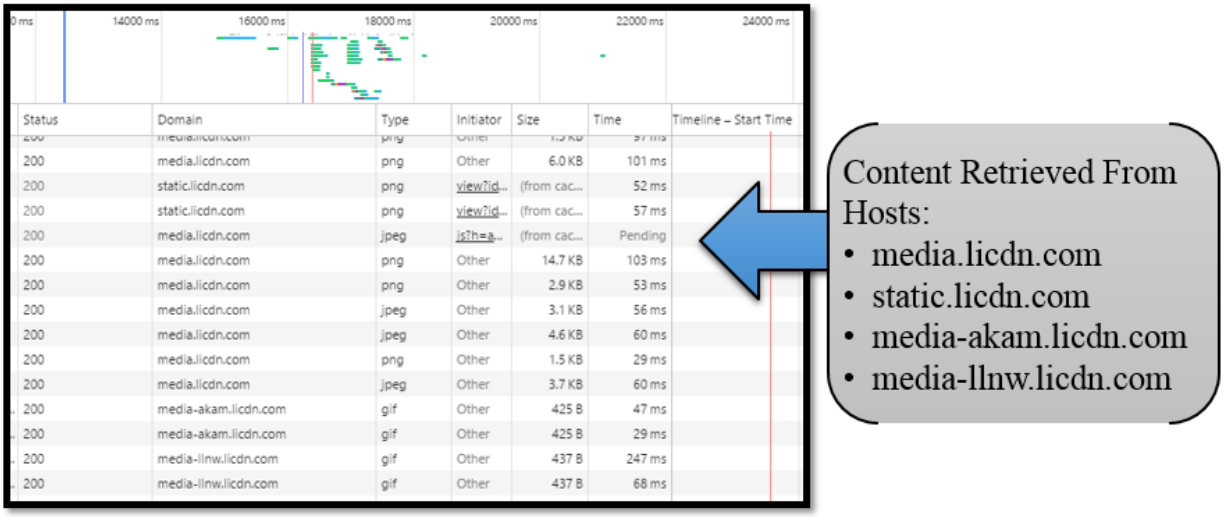
372. On information and belief, the LinkedIn '047 Product is available to businesses and individuals throughout the United States.

373. On information and belief, the LinkedIn '047 Product is provided to businesses and individuals located in the Eastern District of Texas.

374. On information and belief, the LinkedIn '047 Product infringes the '047 patent by making, using, selling, and/or offering for sale in the United States the claimed apparatus—for

example, a program storage device as claimed. For example, through operation of the LinkedIn website, LinkedIn web applications, and LinkedIn mobile applications (e.g., through at least the LinkedIn Ads, LinkedIn Ad Network, LinkedIn Profiles, and functionalities of these websites, web applications, and mobile applications), LinkedIn makes, uses, sells, and/or offers for sale a program storage device comprising a non-transitory memory storage medium readable by a server, tangibly embodying a program of instructions executable by the server to perform method steps for managing a plurality of content hosts on the server.

375. On information and belief, the LinkedIn '047 Product requests a first dynamic content hosted by a first host, wherein requesting is performed by the server, and wherein said first host is selected from the group consisting of an e-mall, e-service, e-portal, satellite e-mall, e-shop, e-distributor and web site. For example, when a LinkedIn user visits the LinkedIn website (e.g., via the webpage https://www.LinkedIn.com), a LinkedIn web server (*e.g.*, a Dallas-Fort Worth CDN server) requests a plurality of dynamic contents from a plurality of hosts in order to display and control user interaction with the LinkedIn user's profile or other interaction on the website. In order to display and control user interaction with the LinkedIn webpage/UI (e.g., the profile page/UI), the LinkedIn web server requests at least a first dynamic content hosted by a first host. Network inspection tools reveal that content loaded on a webpage retrieved from various hosts.



Status	Domain	Type	Initiator	Size	Time	Timeline – Start Time
200	media.licdn.com	png	Other	6.0 KB	101 ms	
200	static.licdn.com	png	view?id...	(from cac...	52 ms	
200	static.licdn.com	png	view?id...	(from cac...	57 ms	
200	media.licdn.com	jpeg	is?h=a...	(from cac...	Pending	
200	media.licdn.com	png	Other	14.7 KB	103 ms	
200	media.licdn.com	png	Other	2.9 KB	53 ms	
200	media.licdn.com	jpeg	Other	3.1 KB	56 ms	
200	media.licdn.com	jpeg	Other	4.6 KB	60 ms	
200	media.licdn.com	png	Other	1.5 KB	29 ms	
200	media.licdn.com	jpeg	Other	3.7 KB	60 ms	
200	media-akam.licdn.com	gif	Other	425 B	47 ms	
200	media-akam.licdn.com	gif	Other	425 B	29 ms	
200	media-llnw.licdn.com	gif	Other	437 B	247 ms	
200	media-llnw.licdn.com	gif	Other	437 B	68 ms	

LinkedIn Profile Page, LINKEDIN WEBSITE (last visited March 2016) (the annotations showing that the objects are retrieved from various servers).

376. On information and belief, the content such as images can be retrieved from servers such as "image-s3.slidesharecdn.com," "media.licdn.com," "static.licdn.com," "media-llnw.licdn.com," and "imp2.ads.linkedin.com." Other objects retrieved by the LinkedIn '047 Product are hosted at servers including: "platform.linkedin.com," "ad.atdmt.com," "secure.adnx.com," "media-llnw.licdn.com," "pop-idb2.perf.linkedin.com."

377. The below log information for requesting data shows an HTTP header where requested data is transmitted from https://media-llnw.lincd.com.

Request Headers	
Accept	image/webp,image/*,*/*;q=0.8
Accept-Encoding	gzip, deflate, sdch
Accept-Language	en-US,en;q=0.8
Referer	https://radar.cedexis.com/1/11326/radar/1458321540/YOmZkaVqtFTYbu4GssCAj6jjNl5C1bfZ/handshake.html
User-Agent	Mozilla/5.0 (Windows NT 6.3; WOW64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/49.0.2623.87 Safari/537.36
Response Headers	
Accept-Ranges	bytes
Access-Control-Allow-Origin	https://www.linkedin.com
Age	82113
Connection	keep-alive
Content-Length	43

LinkedIn Profile – Response and Request Header Log, NETWORK MANAGEMENT LOGGING TOOL CAPTURING LINKEDIN.COM GET REQUESTS (last visited March 2016), available at: https://www.LinkedIn.com (showing that the request and response data sent to the client computer from a server in Arizona identified as https://media-llnw.lincd.com.).

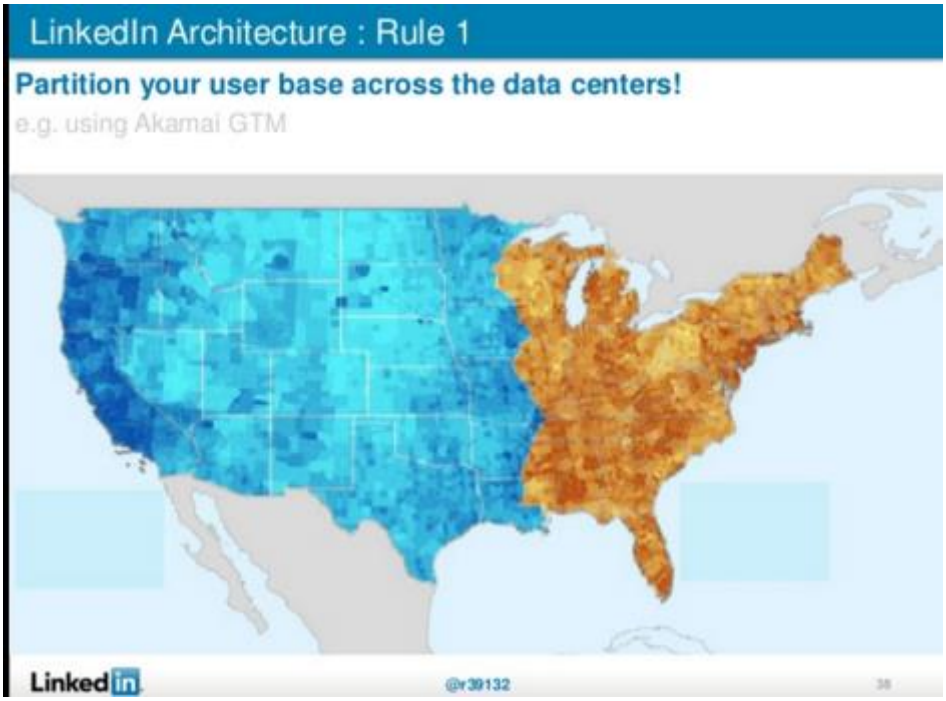
378. On information and belief, the LinkedIn '047 Product retrieves data from first dynamic content hosted by a first host, the LinkedIn web server (e.g., LinkedIn Content Distribution Network ("CDN") server) requests a dynamic content hosted by another host via a GET request. The requesting is performed by the server (e.g., the LinkedIn CDN server), and the first host is selected from the group consisting of an e-mall, e-service, e-portal, satellite e-mall, e-shop, e-distributor and web site.

379. On information and belief, the LinkedIn '047 Product requests second dynamic content hosted by a second host, wherein requesting is performed by the server, and wherein said second host is selected from the group consisting of an e-mall, e-service, e-portal, satellite e-mall, e-shop, e-distributor and web site. For example, when a LinkedIn user visits the LinkedIn website (e.g., via the webpage https://www.LinkedIn.com/), a LinkedIn web server (e.g., a LinkedIn CDN server) requests a plurality of dynamic contents from a plurality of hosts to display and control user interaction with the LinkedIn user's profile page.

380. On information and belief, the LinkedIn '047 Product requests content hosted by a second host such as a server (e.g., LinkedIn media server).

381. On information and belief, LinkedIn uses multiple CDN providers for different domains. For example, domain http://static.licdn.com is served through Level 3 Communications. Traffic for the domain http://www.linkedin.com is also served by Level 3 Communications. LinkedIn, at times, uses Akamai Technologies to serve content. See e.g., http://platform.linkedin.com.

382. On information and belief, LinkedIn documentation states that users will be assigned to data centers based in part on their proximity to one of LinkedIn's data centers. The following slide from a 2014 presentation on LinkedIn's architecture depicts the three primary geographic locations where LinkedIn users are assigned.



Sid Anand, *Software Development and Architecture @ LinkedIn*, QCON SF 2014 at 38 (2014)

383. On information and belief, each of LinkedIn's data centers contains an instance of Kafka (a message broker that handles low-latency data feeds).

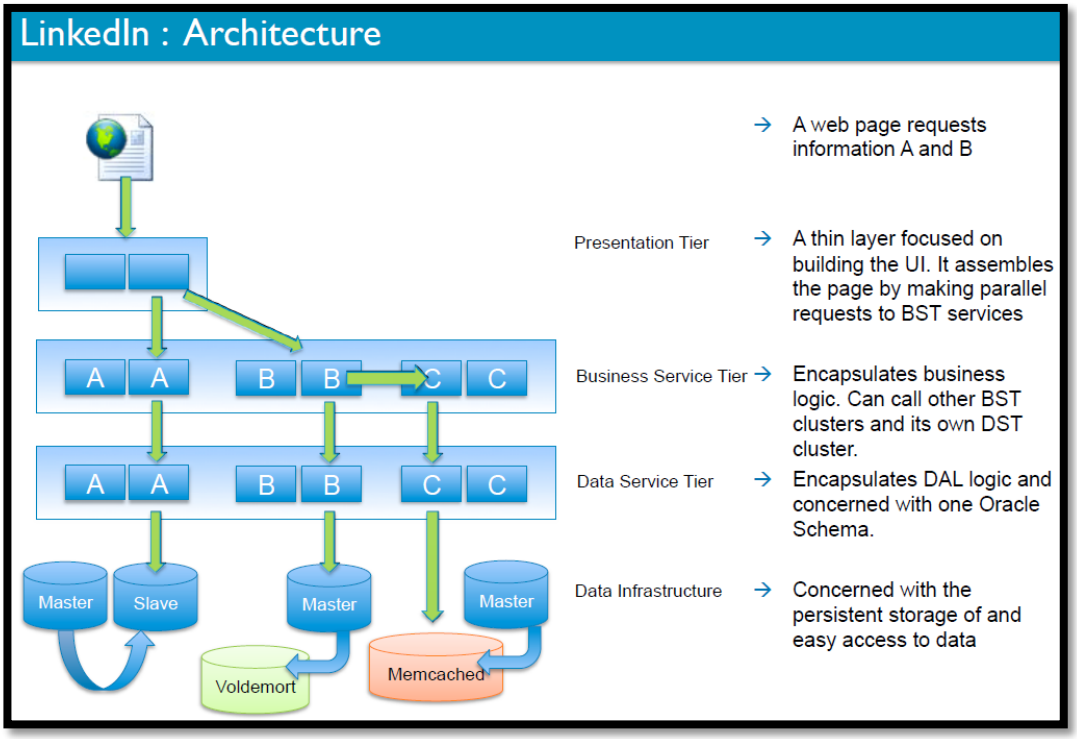
384. On information and belief, to display and control user interaction with the LinkedIn webpage/UI (e.g., the webpage/UI), the LinkedIn web server requests at least a second dynamic content hosted by a second host. For example, web browser source and developer tools reveal (among many others) at least the content and associated hosts located at: media-llnw.licdn.com.

385. On Information and belief, LinkedIn uses Dust.js templates to facilitate the efficient conveyance of content from a variety of hosts. "Dust.js templates offer huge benefits on many fronts: Caching: unlike server-side templates, client-side templates can be served via a CDN to reduce latency for your users and bandwidth and load for your servers. Moreover, the template files can be cached in the user's browser, so after the initial page load, the web server only needs to return the dynamic data as JSON, which is maximally efficient."[144]

[144] Veena Basavaraj, *Leaving Jsps In The Dust: Moving Linkedin To dust.js Client-Side Templates*, LINKEDIN ENGINEERING WEBSITE (December 13, 2011), available at:

386. On information and belief, LinkedIn employees have stated that "data that is committed to Database needs to also be made available to a host of other online serving systems: Search, Standardized Services, Graph Engine, Recommender Systems."[145]

387. The below architectural schematic referenced in LinkedIn documentation and in academic presentations provides a view of LinkedIn's data center architecture where a user requesting information from the LinkedIn website interfaces through a Presentation Tier (a thin layer focused on building user interface) that assembles the content by making requests to a business series tier that requests data from the data infrastructure level.



Sid Anand, *Data Infrastructure @ LinkedIn*, QCON LONDON 2012 at 8 (2012).

388. On information and belief, the LinkedIn '047 Product displays the first dynamic content and the second dynamic content to a user accessing the second host as if the first dynamic content originated from the second host. For example, LinkedIn displays the first

https://engineering.linkedin.com/frontend/leaving-jsps-dust-moving-linkedin-dustjs-client-side-templates

[145] Sid Anand, *Building Modern Web Sites: A Story of Scalability and Availability*, QCon NY 2013 at 12 (2013)

dynamic content (e.g., the external dynamic content) to a user accessing the second host (e.g., a static.LinkedIn.com host) as if the first dynamic content originated from the second host.

389. On information and belief, the LinkedIn '047 Product configures the server to control the user's interaction with the first dynamic content by causing the second host to fetch the dynamic content from the first host. For example, LinkedIn configures the LinkedIn CDN server to control the LinkedIn user's interaction with the first dynamic content (e.g., the external display content) by causing the second host (e.g., imp2.ads.linkedin.com) to retrieve the dynamic content from the first host (e.g., the external content host).

390. On information and belief, the LinkedIn '047 Product configures the server to control interfacing with the user accessing the first dynamic content and the second dynamic content through the second host. For example, LinkedIn configures the LinkedIn CDN server to control interfacing with the LinkedIn user accessing the first dynamic content (e.g., the external display content) and the second dynamic content (e.g., the dynamic content) through the second host (e.g., the imp2.ads.linkedin.com).

391. On information and belief, the LinkedIn '047 Product configures the server to maintain user interaction with the first dynamic content at the second host. For example, LinkedIn configures the LinkedIn CDN server to maintain the LinkedIn user's interaction with the first dynamic content at the second host (e.g., a top navigation element keeps a logged in user in control of the first content without redirecting the user to the first content host).

392. On information and belief, LinkedIn has directly infringed and continues to directly infringe the '047 patent by, among other things, making, using, offering for sale, and/or selling products and/or services for web content management, including but not limited to, the LinkedIn '047 Product, which includes infringing web content management technologies.

393. By making, using, testing, offering for sale, and/or selling web content management products and services, including but not limited to the LinkedIn '047 Product, LinkedIn has injured UnoWeb and is liable to UnoWeb for directly infringing one or more claims of the '047 patent, including at least claim 1, pursuant to 35 U.S.C. § 271(a).

394. On information and belief, LinkedIn also indirectly infringes the '047 patent by actively inducing infringement under 35 U.S.C. § 271(b), at least as of the date of service of this Complaint.

395. On information and belief, LinkedIn has had knowledge of the '047 patent since at least service of this Complaint or shortly thereafter, and on information and belief, LinkedIn knew of the '047 patent and knew of its infringement, including by way of this lawsuit.

396. On information and belief, LinkedIn intended to induce patent infringement by third-party customers and users of the LinkedIn '047 Product and had knowledge that the inducing acts would cause infringement or was willfully blind to the possibility that its inducing acts would cause infringement. LinkedIn specifically intended and was aware that the normal and customary use of the accused products would infringe the '047 patent. LinkedIn performed the acts that constitute induced infringement, and would induce actual infringement, with the knowledge of the '047 patent and with the knowledge that the induced acts would constitute infringement. For example, LinkedIn provides the LinkedIn '047 Product that has the capability of operating in a manner that infringes one or more of the claims of the '047 patent, including at least claim 1, and LinkedIn further provides documentation and training materials that cause customers and end users of the LinkedIn '047 Product to utilize the product in a manner that directly infringe one or more claims of the '047 patent. By providing instruction and training to customers and end-users on how to use the LinkedIn '047 Product in a manner that directly infringes one or more claims of the '047 patent, including at least claim 1, LinkedIn specifically intended to induce infringement of the '047 patent. On information and belief, LinkedIn engaged in such inducement to promote the sales of the LinkedIn '047 Products, *e.g.*, through LinkedIn user guides, product support, marketing materials, and training materials to actively induce the users of the accused products to infringe the '047 patent.[146] Accordingly, LinkedIn

[146] *Jobs You May Be Interested In – Overview*, LinkedIn Help Center (last visited March 22, 2016), available at: https://www.linkedin.com/help/linkedin/answer/11783/jobs-you-may-be-interested-in---overview*; Share on LinkedIn*, LINKEDIN FOR DEVELOPERS WEBSITE (last visited March 22, 2016), *available at:* https://developer.linkedin.com/docs/share-on-linkedin; *The Open*

has induced and continues to induce users of the accused product to use the accused product in its ordinary and customary way to infringe the '047 patent, knowing that such use constitutes infringement of the '047 patent.

397. To the extent applicable, the requirements of 35 U.S.C. § 287(a) have been met with respect to the '047 patent.

398. As a result of LinkedIn's infringement of the '047 patent, UnoWeb has suffered monetary damages, and seeks recovery in an amount adequate to compensate for LinkedIn's infringement, but in no event less than a reasonable royalty for the use made of the invention by LinkedIn together with interest and costs as fixed by the Court, and LinkedIn will continue to suffer damages in the future unless LinkedIn's infringing activities are enjoined by this Court.

399. Unless a permanent injunction is issued enjoining LinkedIn and its agents, servants, employees, representatives, affiliates, and all others acting or in active concert therewith from infringing the '047 patent, UnoWeb will be greatly and irreparably harmed.

COUNT IV
INFRINGEMENT OF U.S. PATENT NO. 7,730,083

400. UnoWeb references and incorporates by reference the preceding paragraphs of this Complaint as if fully set forth herein.

401. LinkedIn makes, uses, sells, and/or offers for sale in the United States products and/or services for web content management.

Graph Protocol, OPEN GRAPH WEBSITE (last visited March 22, 2016), *available at:* http://ogp.me/; Sriram Sankar and Asif Makhani, *Did You Mean "Galene,"* LINKEDIN ENGINEERING WEBSITE (June 5, 2014), *available at*: https://engineering.linkedin.com/search/did-you-mean-galene; *LinkedIn Basics*, LINKEDIN HELP CENTER (last visited March 22, 2016), *available at:* https://www.linkedin.com/help/linkedin/topics/6001/6002; *LinkedIn Display Advertising*, LINKIN BUSINESS SOLUTIONS WEBPAGE (last visited March 22, 2016), *available at:* https://business.linkedin.com/me/marketing-solutions/display-advertising; *LinkedIn Gobblin - Universal Data Ingestion Framework for Hadoop*, GITHUB WEBSITE (last visited March 22, 2016), *available at*: https://github.com/linkedin/gobblin; Praveen Neppalli Naga, *Real-time Analytics at Massive Scale with Pinot*, LINKEDIN ENGINEERING WEBSITE (September 29, 2014), available at: https://engineering.linkedin.com/analytics/real-time-analytics-massive-scale-pinot.

402. LinkedIn makes, sells, offers to sell, imports, and/or uses the Lynda.com websites (e.g., http://www.Lynda.com, http://m.Lynda.com) and Lynda mobile and desktop applications (e.g., Lynda for iOS native application, Lynda for Android native applications, Lynda for Windows 8 App for tablet and PC, Lynda Desktop App for Windows, and Lynda Desktop App for OS X) (collectively, the "LinkedIn-Lynda '083 Product").

403. On information and belief, LinkedIn owns and operates Lynda.com.[147]

404. On information and belief, the LinkedIn-Lynda '083 Product is available to businesses and individuals throughout the United States.

405. On information and belief, the LinkedIn-Lynda '083 Product is provided to businesses and individuals located in the Eastern District of Texas.

406. On information and belief, the LinkedIn-Lynda system identifies content such as videos with a "CourseID" and "VideoID" code. The following image shows the source code for content identified as LinkedIn Advertising Tutorial. The content is identified with CourseID: 370801 and VideoID: 406255.

LinkedIn Advertising Tutorial, LYNDA.COM WEBSITE (last visited March 2016), available at: http://www.lynda.com/LinkedIn-tutorials/What-well-cover/370801/406256-4.html

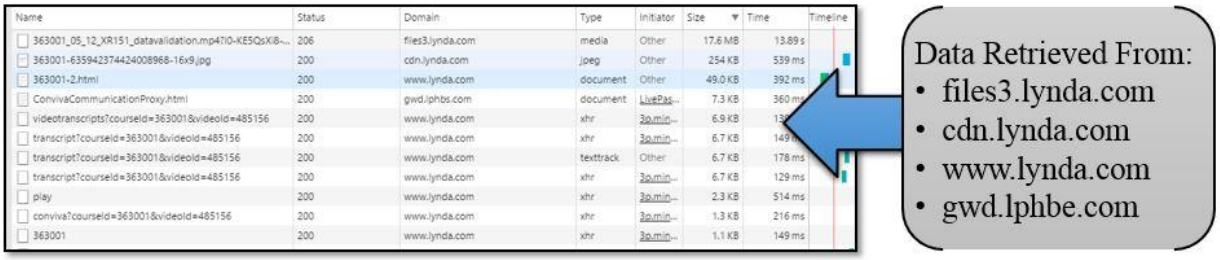
407. On information and belief, a 2015 white paper describing the LinkIn-Lynda '083 Product states, "[L]ynda.com has robust reporting capabilities that can easily integrate with other enterprise systems via APIs. Administrative reports measure numerous aspects of engagement

[147] 2015 LinkedIn 10-K at 43 (February 11, 2016) ("[I]n 2015, we acquired lynda.com, Inc. . . ., a privately-held online learning company . . . the acquisition of Lynda.com further expands our content strategy, broadens our Talent Solutions product portfolio, and helps us realize our vision of building the world's first economic graph. The total purchase price for all of the outstanding equity interests of Lynda.com was approximately $1.5 billion.").

by learners, including: Time spent on lynda.com by users, teams, or an entire organization, Courses viewed and completed by users, teams, or an entire organization, Courses with the most views, and Achievement."[148]

408. On information and belief, the LinkedIn-Lynda '083 Product associates each data object with a surf code. Code that is associated with a data object includes: "Data-jstracking-rum-page-key," "Data-jstracking-page-key," "Data-rumtracking-enabed," and "Data-jstracking-user-urn."

409. On information and belief, the LinkedIn-Lynda '083 Product provides a computer hosting a plurality of contents provided by a plurality of content hosts, wherein the contents are stored on a computer storage medium, and wherein the computer is configured with all the required software and hardware to support the ability to control all interfacing with the user without redirecting the user to any of the plurality of content hosts, and to request and receive data from the content hosts. For example, the LinkedIn-Lynda '083 Product provides a virtual web server computer to a user accessing the LinkedIn-Lynda websites and/or web apps (e.g., www.lynda.com m.lynda.com; etc.). The LinkedIn-Lynda virtual web server computer comprises, for example, a plurality of contents (*e.g.*, video content) from a plurality of content hosts (e.g., files3.lynda.com, a23-199-224-122.deploy.static.akamaitechnologies.com, cdn.lynda.com, 192.229.210.228).



Lynda Video Content – Network Traffic, LYNDA.COM WEBSITE (last visited March 2016) (the annotations showing that objects are retrieved from various servers).

[148] *Building Successful Corporate Elearning Programs*, LYNDA.COM WHITE PAPER at 8 (January 2015).

410. On information and belief, the LinkedIn-Lynda '083 Product includes a virtual server computer (e.g., the LinkedIn-Lynda virtual web server computer provided to a user accessing the LinkedIn-Lynda '083 Product websites and/or web apps) that hosts a plurality of content hosts (e.g., files3.lynda.com, a23-199-224-122.deploy.static.akamaitechnologies.com, cdn.lynda.com, 192.229.210.228).

411. On information and belief, the LinkedIn-Lynda '083 Product comprises at least a first content host and a second content host.

412. On information and belief, the LinkedIn-Lynda '083 Product comprises web content management software.

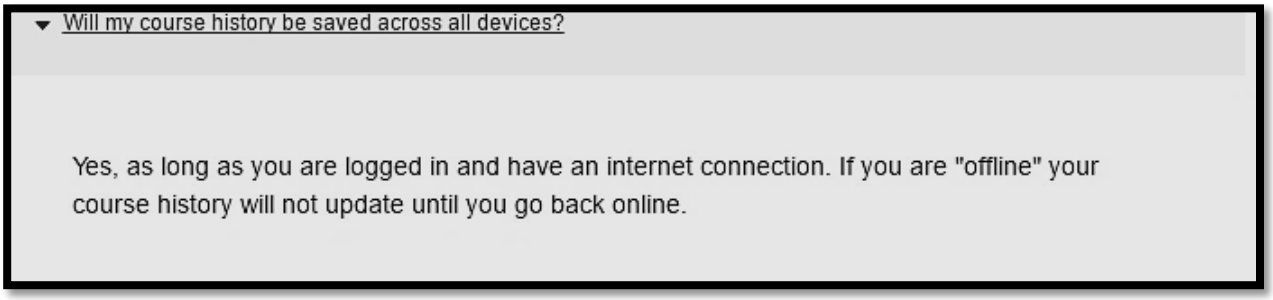
413. On information and belief, the LinkedIn-Lynda '083 Product includes a Search API, Courses API, and Reports API. The LinkedIn-Lynda '083 Product Search API enables functionality for creating learning paths of courses and links, the ability to identify and retrieve courses with the Learning Management System ("LMS"), and generation of a playlist or learning path of course results/links.

414. On information and belief, the LinkedIn-Lynda '083 Product contains a Reports API that enables tracking of user paths.

415. On information and belief, the LinkedIn-Lynda '083 Product enables the Central Authentication Service protocol, Single Sign-On authentication, Security Assertion Markup Language 2.0 authentication, Patron API authentication, and Internet Protocol Address Authentication.

416. On information and belief, the LinkedIn-Lynda '083 Product documentation states that "[a]fter logging in, the home page will show the last course you watched. Access all of your settings, including my account, course history, and playlists, from the drop-down menu in the top right corner of any mobile site page."

417. On information and belief, the LinkedIn-Lynda '083 Product enables saving a course history across devices where the course history is saved on a server and accessible by a client device.



Lynda Frequently Asked Questions, LYNDA.COM WEBSITE (last visited March 2016), available at: http://www.lynda.com/frequently-asked-questions.

418. On information and belief, the LinkedIn-Lynda '083 Product enables each content host in the plurality of content hosts to be accessible by a user at a unique Uniform Resource Locator address. For example, the LinkedIn-Lynda '083 Product enables a logged-in user to access the computer through their client device and view two or more pieces of internet content in a plurality of a content.

419. On information and belief, the LinkedIn-Lynda '083 Product connects to hosts at one or more of the following locations.

- files3.lynda.com
- a23-199-224-122.deploy.static.akamaitechnologies.com
- cdn.lynda.com
- 192.229.210.228

420. On information and belief, the LinkedIn-Lynda '083 Product includes functionality where a plurality of content hosts comprise a plurality of contents. For example, the plurality of content hosts (e.g., files3.lynda.com, a23-199-224-122.deploy.static.akamaitechnologies.com, cdn.lynda.com, 192.229.210.228) comprise a plurality of contents (e.g., video content). Moreover, when a Lynda user visits LinkedIn-Lynda '083 Product website (e.g., via the webpage https://www.Lynda.com), a LinkedIn-Lynda '083 Product web server requests a plurality of dynamic contents from a plurality of hosts to display and control user interaction with the LinkedIn-Lynda '083 Product user interface.

421. On information and belief, the LinkedIn-Lynda '083 Product documentation states that to access content (training materials) a client computer needs to have access to the following addresses: s7.addthis.com cdn.lynda.com, www.google-analytics.com,

dnn506yrbagrg.cloudfront.net, www.googletagmanager.com, ct1.addthis.com, d31qbv1cthcecs.cloudfront.net, a.adroll.com, munchkin.marketo.net, cc.chango.com, d5nxst8fruw4z.cloudfront.net, www.google.com, bh.contextweb.com, r.casalemedia.com, cache.btrll.com, cdn.spotxchange.com, platform.twitter.com, connect.facebook.net, b.scorecardresearch.com, static.ak.facebook.com, s-static.ak.facebook.com, and fbstatic-a.akamaihd.net.

422. On information and belief, the LinkedIn-Lynda '083 Product documentation states that "[t]he lynda.com system is able to track when a member watches and finishes a movie in a title."

423. On information and belief, a LinkedIn-Lynda '083 Product White Paper entitled "Surviving the Silver Tsunami" states:

> [L]ynda.com has a dedicated integration team that focuses on making the integration of content into LMS platforms as easy as possible for clients. In addition, it offers a robust authentication team that works with a client's HR or identity management teams to ensure all users can properly sign in and access courses. This helps to take the burden of implementation off of agency resources, so they can focus on other initiatives. ***Using API technology, the cloud-based content, reporting capabilities, and administrative functions of lynda.com can be accessed from anywhere***, not just at the jobsite.[149]

424. On information and belief, documentation from the LinkedIn-Lynda '083 Product lists the following 3rd parties as "data providers" and/or "aggregators:" Blue Kai, Inc., Quantcast Corporation, Datalogix, Adobe, and Neustar.[150]

425. On information and belief, the LinkedIn-Lynda '083 Product stores on the computer storage medium an identification of the user to enable the user to log in to the computer. For example, the LinkedIn-Lynda '083 Product stores on a computer storage medium accessible to the LinkedIn-Lynda '083 website/web app virtual server computer (e.g., non-volatile server-accessible flash and/or solid state memory) an identification of a registered

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[149] *Surviving the Silver Tsunami*, LYNDA.COM WHITE PAPER at 6 (February2015) (emphasis added).

[150] *Lynda.com 3rd Parties*, LYNDA.COM DOCUMENTATION (2013), *available at:* https://cdn.lynda.com/cms/asset/text/LDC3rdparties1671099996.pdf.

LinkedIn-Lynda ‘083 Product user (e.g., an identifier of the registered LinkedIn-Lynda ‘083 Product user) to enable the user to log into the LinkedIn-Lynda ‘083 Product website/web app virtual server computer.

426. On information and belief, the LinkedIn-Lynda ‘083 Product permits a logged-in user to access the computer through the requesting client to view at least two different contents in the plurality of contents. The below screenshot shows that when a LinkedIn-Lynda ‘083 webpage is loaded content identified with a unique tracking reference.

LinkedIn Advertising Tutorial, LYNDA.COM WEBSITE (last visited March 2016), available at: http://www.lynda.com/LinkedIn-tutorials/What-well-cover/370801/406256-4.html

427. On information and belief, the LinkedIn-Lynda ‘083 Product permits a user at a client to access a virtual server providing the virtual network, wherein such access enables the user to view multiple contents supplied by a different host in the virtual network, wherein the virtual server sends a request and receives data from the different hosts, and wherein the virtual server has all the required software and hardware to support the ability to virtually present the multiple contents. For example, the LinkedIn-Lynda ‘083 Product website/web app virtual web server enables a user to interact with the plurality of content hosts (*e.g.*, files3.lynda.com, a23-199-224-122.deploy.static.akamaitechnologies.com, cdn.lynda.com, 192.229.210.228, etc.) through the first content host (e.g., www.Lynda.com) without the user having to navigate to the unique URL address of any other content host in the plurality of content hosts. Moreover, in order to display and control user interaction with the LinkedIn-Lynda ‘083 Product webpage/UI

(e.g., the webpage/user profile page), the LinkedIn-Lynda '083 Product web server requests at least a second dynamic content hosted by a second host.

428. On information and belief, the LinkedIn-Lynda '083 Product assigns a surf code reference to each of the contents viewed, the surf code reference comprising information that identifies the contents viewed. For example, each piece of video content is identified with a unique reference "CourceID" and/or "VideoID" and each user is identified with a unique "UserID" that enables tracking user access to each piece of content.

LinkedIn Advertising Fundamentals, LYNDA.COM WEBSITE (last visited March 2016), available at: http://www.lynda.com/LinkedIn-tutorials/Introducing-LinkedIn-ads/370801/406259-4.html (annotation showing the use of codes in the underlying source code of the LinkIn-Lynda '083 Product Website).

429. On Information and belief, the LinkedIn-Lynda '083 Product website receives a request from a logged-in user to create a user list of different contents viewed by the logged-in user.

430. On information and belief, the LinkedIn-Lynda '083 Product website receives a request from a user to create a user list of different contents viewed by the user. Moreover, the LinkedIn-Lynda '083 Product configures a web server to control interfacing with the LinkedIn-

Lynda ‘083 Product user accessing the first dynamic content and the second dynamic content through the second host. The following screenshot shows that the LinkedIn-Lynda ‘083 Product enables the use of an Edgecast server.

LinkedIn Advertising Tutorial, LYNDA.COM WEBSITE (last visited March 2016), available at: http://www.lynda.com/LinkedIn-tutorials/What-well-cover/370801/406256-4.html

431. On information and belief, the LinkedIn-Lynda ‘083 Product stores the user list on the computer, the user list comprising the surf-code reference for each of the different contents viewed by the logged-in user.

432. On information and belief, the LinkedIn-Lynda ‘083 Product stores the user list comprising the surf code reference automatically within the virtual network for each content supplied to the user.

433. On information and belief, the LinkedIn-Lynda ‘083 Product permits the logged-in user to access the user list to identify the content viewed by the logged-in user. For example, through at least the LinkedIn-Lynda ‘083 Product website/web app’s “lynda_history_member” functionality, the LinkedIn-Lynda ‘083 Product supplies, from the LinkedIn-Lynda ‘083 Product website/web app virtual web server computer, a user list to the user (e.g., the LinkedIn-Lynda ‘083 Product user “lyndaUser”), the user list comprising an identification of each such content viewed by the user.

434. On information and belief, the LinkedIn-Lynda ‘083 Product permits the user at the client to request the user-list from the virtual network. Moreover, the Linked-Lynda ‘083

Product configures the server to maintain the LinkedIn-Lynda '083 Product maintains the user's interaction with the first dynamic content at the second host.

435. On information and belief, the LinkedIn-Lynda '083 Product presents the content viewed by the logged-in user to the user requesting such content from the user list. For example, the website/web app displays to the user accessing the first host (e.g., www.lynda.com) content from content hosts (e.g., files3.lynda.com, a23-199-224-122.deploy.static.akamaitechnologies.com, cdn.lynda.com, 192.229.210.228, etc.).

436. On information and belief, the LinkedIn-Lynda '083 Product supplies from the virtual network the user-list to the user at the client. For example, through at least the LinkedIn-Lynda '083 Product website/web app's "lynda_history_member" functionality, the LinkedIn-Lynda '083 Product presents to the user (e.g., the LinkedIn-Lynda '083 Product user "lyndaUser") any such content viewed by the user requesting such content from the user list. The below screenshot shows that the website source code loads a class entitled "container_16" that contains the tracked content.

Lynda Court History Web Page, LYNDA.COM WEBSITE (last visited March 2016), available at: http://www.lynda.com/CourseHistory.

437. On information and belief, the LinkedIn-Lynda '083 Product supplies content to the user drawn from the user list.

438. On information and belief, LinkedIn has directly infringed and continues to directly infringe the '083 patent by, among other things, making, using, offering for sale, and/or selling products and/or services for web content management, including but not limited to, the LinkedIn-Lynda '083 Product, which includes infringing web content management technologies.

439. By making, using, testing, offering for sale, and/or selling web content management products and services, including but not limited to the LinkedIn-Lynda '083 Product, LinkedIn has injured UnoWeb and is liable to UnoWeb for directly infringing one or more claims of the '083 patent, including at least claims 1 and 8, pursuant to 35 U.S.C. § 271(a).

440. On information and belief, LinkedIn also indirectly infringes the '083 patent by actively inducing infringement under 35 U.S.C. § 271(b), at least as of the date of service of this Complaint.

441. On information and belief, LinkedIn has had knowledge of the '083 patent since at least service of this Complaint or shortly thereafter, and on information and belief, LinkedIn knew of the '083 patent and knew of its infringement, including by way of this lawsuit.

442. On information and belief, LinkedIn intended to induce patent infringement by third-party customers and users of the LinkedIn-Lynda '083 Product and had knowledge that the inducing acts would cause infringement or was willfully blind to the possibility that its inducing acts would cause infringement. LinkedIn specifically intended and was aware that the normal and customary use of the accused products would infringe the '083 patent. LinkedIn performed the acts that constitute induced infringement, and would induce actual infringement, with the knowledge of the '083 patent and with the knowledge, that the induced acts would constitute infringement. For example, LinkedIn provides the LinkedIn-Lynda '083 Product that has the capability of operating in a manner that infringes one or more of the claims of the '083 patent, including at least claims 1 and 8, and LinkedIn further provides documentation and training materials that cause customers and end users of the LinkedIn-Lynda '083 Product to utilize the product in a manner that directly infringe one or more claims of the '083 patent. By providing instruction and training to customers and end-users on how to use the LinkedIn-Lynda '083 Product in a manner that directly infringes one or more claims of the '083 patent, including at least claims 1 and 8, LinkedIn specifically intended to induce infringement of the '083 patent. On information and belief, LinkedIn engaged in such inducement to promote the sales of the LinkedIn-Lynda '083 Product, *e.g.*, through user guides, product support, marketing materials,

and training materials to actively induce the users of the accused products to infringe the '083 patent.[151] Accordingly, LinkedIn has induced and continues to induce users of the accused product to use the accused product in its ordinary and customary way to infringe the '083 patent, knowing that such use constitutes infringement of the '083 patent.

443. To the extent applicable, the requirements of 35 U.S.C. § 287(a) have been met with respect to the '083 patent.

444. As a result of LinkedIn's infringement of the '083 patent, UnoWeb has suffered monetary damages, and seeks recovery in an amount adequate to compensate for LinkedIn's infringement, but in no event less than a reasonable royalty for the use made of the invention by LinkedIn together with interest and costs as fixed by the Court, and LinkedIn will continue to suffer damages in the future unless LinkedIn's infringing activities are enjoined by this Court.

445. Unless a permanent injunction is issued enjoining LinkedIn and its agents, servants, employees, representatives, affiliates, and all others acting or in active concert therewith from infringing the '083 patent, UnoWeb will be greatly and irreparably harmed.

COUNT V
INFRINGEMENT OF U.S. PATENT NO. 8,037,091

446. UnoWeb references and incorporates by reference the preceding paragraphs of this Complaint as if fully set forth herein.

447. LinkedIn makes, uses, sells, and/or offers for sale in the United States products and/or services for web content management.

[151] *Lynda Classroom Getting Started Guide*, LYNDA.COM DOCUMENTATION (August 2014), available at: http://cdn.lynda.com/cms/asset/text/lyndaClassroomGettingStartedGuide-1541496078.pdf; *Surviving The Silver Tsunami*, LYNDA.COM WHITE PAPER (February2015); *Lynda.com 3rd Parties*, LYNDA.COM DOCUMENTATION (2013), *available at:* https://cdn.lynda.com/cms/asset/text/LDC3rdparties1671099996.pdf; *Lynda Frequently Asked Questions*, LYNDA.COM WEBSITE (last visited March 2016), available at: http://www.lynda.com/frequently-asked-questions; *Building Successful Corporate Elearning Programs*, LYNDA.COM WHITE PAPER (January 2015); *How to use Lynda*, LYNDA.COM VIDEO DOCUMENTATION (last visited March 2016), available at: https://www.lynda.com/Business-tutorials/How-use-Lynda-com/77683-2.html.

448. LinkedIn makes, sells, offers to sell, imports, and/or uses the Lynda.com websites (e.g., http://www.Lynda.com, http://m.Lynda.com) and Lynda mobile and desktop applications (e.g., Lynda for iOS native application, Lynda for Android native applications, Lynda for Windows 8 App for tablet and PC, Lynda Desktop App for Windows, and Lynda Desktop App for OS X) (collectively, the "LinkedIn-Lynda '091 Product").

449. On information and belief, the LinkedIn-Lynda '091 Product includes web content management software.

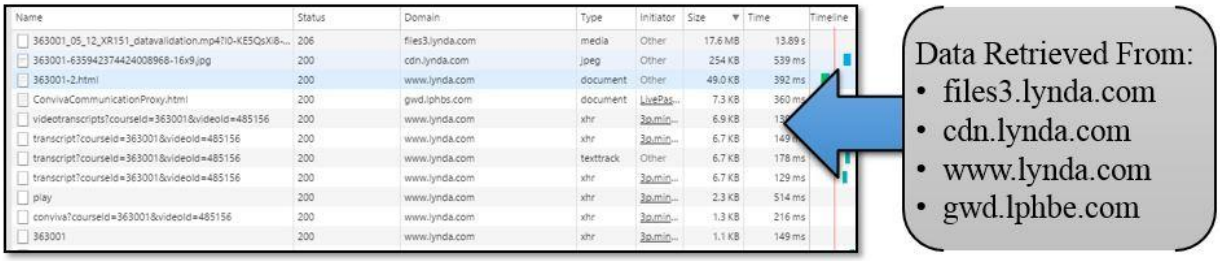
450. On information and belief, the LinkedIn-Lynda '091 Product is available to businesses and individuals throughout the United States.

451. On information and belief, the LinkedIn-Lynda '091 Product is provided to businesses and individuals located in the Eastern District of Texas.

452. On information and belief, LinkedIn owns and operates Lynda.com.[152]

453. On information and belief, the LinkedIn-Lynda '091 Product provides a virtual server computer, the virtual server computer hosting a plurality of content hosts, the plurality of content hosts comprising a first content host, a second content hosts and a third content host. For example, LinkedIn provides a virtual web server computer to a user accessing the LinkedIn-Lynda '091 Product websites and/or web apps (e.g., www.lynda.com; m.lynda.com; etc.). The LinkedIn-Lynda '091 Product virtual web server computer comprises, for example, a plurality of contents (e.g., video contents, etc.) from a plurality of content hosts (e.g., files3.lynda.com, a23-199-224-122.deploy.static.akamaitechnologies.com, cdn.lynda.com, 192.229.210.228, etc.).

[152] 2015 LinkedIn 10-K at 43 (February 11, 2016) ("[I]n 2015, we acquired lynda.com, Inc. . . ., a privately-held online learning company . . . the acquisition of Lynda.com further expands our content strategy, broadens our Talent Solutions product portfolio, and helps us realize our vision of building the world's first economic graph. The total purchase price for all of the outstanding equity interests of Lynda.com was approximately $1.5 billion.").



Lynda Video Content – Network Traffic, LYNDA.COM WEBSITE (last visited March 2016) (the annotations showing that objects are retrieved from various servers).

454. On information and belief, the LinkedIn-L:ynda '091 Product includes a virtual server computer (e.g., the LinkedIn-Lynda '091 Product virtual web server computer provided to a user accessing the LinkedIn websites and/or web apps) hosting a plurality of content hosts (e.g., files3.lynda.com, a23-199-224-122.deploy.static.akamaitechnologies.com, cdn.lynda.com, 192.229.210.228, etc.). The plurality of content hosts (e.g., files3.lynda.com, a23-199-224-122.deploy.static.akamaitechnologies.com, cdn.lynda.com, 192.229.210.228, etc.) comprises at least a first content host, a second content host, and a third content host.

LinkedIn Advertising Tutorial, LYNDA.COM WEBSITE (last visited March 2016), available at: http://www.lynda.com/LinkedIn-tutorials/What-well-cover/370801/406256-4.html

455. On information and belief, the LinkedIn-Lynda '091 Product enables each content host in the plurality of content hosts to be accessible by a user at a unique Uniform Resource Locator address. For example, the LinkedIn-Lynda '091 Product enables each content host in the plurality of content hosts to be accessible by a user of the LinkedIn-Lynda '091 Product webpage and/or web app at a unique URL within the following domains/subdomains:

- files3.lynda.com
- a23-199-224-122.deploy.static.akamaitechnologies.com
- cdn.lynda.com

- 192.229.210.228

456. On information and belief, the LinkedIn-Lynda '091 Product includes a plurality of content hosts that comprise a plurality of contents. For example, the plurality of content hosts (e.g., files3.lynda.com, a23-199-224-122.deploy.static.akamaitechnologies.com, cdn.lynda.com, 192.229.210.228, etc.) comprise a plurality of contents (e.g., video and course contents).

457. On information and belief, the LinkedIn-Lynda '091 Product enables user interaction with the plurality of content hosts through the first content host without the user having to navigate to the unique Uniform Resource Locator address of any other content host in the plurality of content hosts. For example, the LinkedIn-Lynda website/web app virtual web server enables a user to interact with the plurality of content hosts (e.g., files3.lynda.com, a23-199-224-122.deploy.static.akamaitechnologies.com, cdn.lynda.com, 192.229.210.228, etc.) through the first content host (e.g., www.lynda.com) without the user having to navigate to the unique URL address of any other content host in the plurality of content hosts. Documentation from the LinkedIn-Lynda '091 product lists the following 3rd parties as "data providers" and/or "aggregators:" Blue Kai, Inc., Quantcast Corporation, Datalogix, Adobe, and Neustar.[153]

458. On information and belief, the LinkedIn-Lynda '091 Product displays to the user accessing the first host content from at least two different content hosts. For example, the LinkedIn-Lynda '091 Product website/web app displays to the user accessing the first host (e.g., www.lynda.com) content from at least two different content hosts (e.g., files3.lynda.com, a23-199-224-122.deploy.static.akamaitechnologies.com, cdn.lynda.com, 192.229.210.228, etc.).

459. On information and belief, the LinkedIn-Lynda '091 Product assigns a surf code reference to each content displayed to the user, the surf code reference comprising information that identifies each such content displayed. For example, the LinkedIn-Lynda '091 website/web app assigns a "CourseID" and "VideoID" surf code reference to each content displayed to the user (e.g., each user is identified with a unique "UserID" that enables tracking user access to

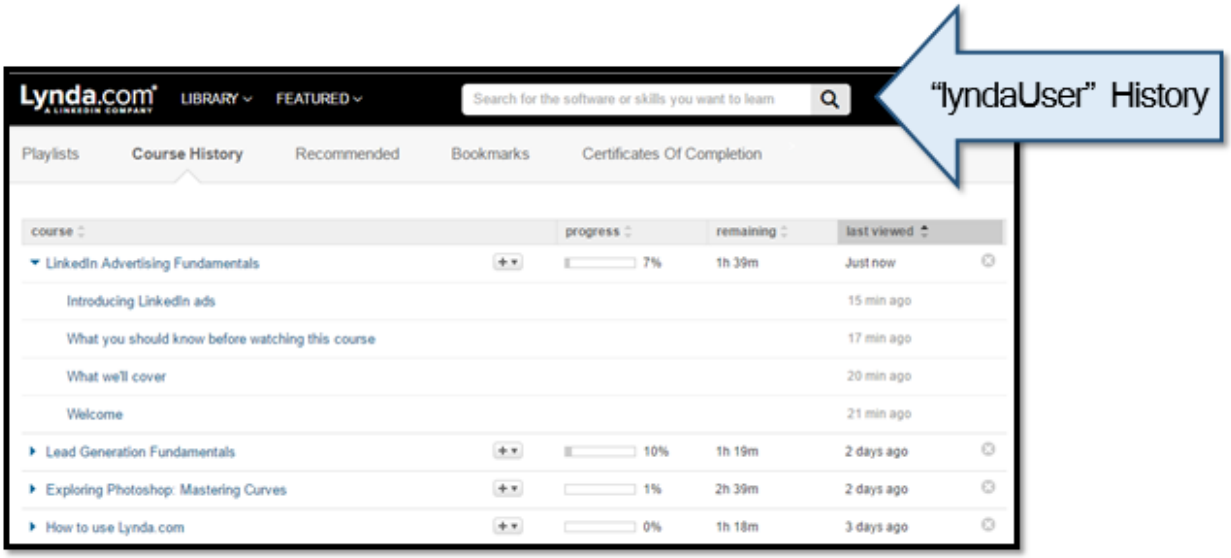
[153] *Lynda.com 3rd Parties*, LYNDA.COM DOCUMENTATION (2013), *available at:* https://cdn.lynda.com/cms/asset/text/LDC3rdparties1671099996.pdf.

each piece of content), the surf code reference comprising information that identifies each such content displayed.

LinkedIn Advertising Fundamentals, LYNDA.COM WEBSITE (last visited March 2016), available at: http://www.lynda.com/LinkedIn-tutorials/Introducing-LinkedIn-ads/370801/406259-4.html (annotation showing the use of codes in the underlying source code of the LinkIn-Lynda '091 Product Website).

460. On information and belief, the LinkedIn-Lynda '091 Product supplied from the virtual server computer a user list to the user, the user list comprising an identification of each such content viewed by the user. For example, through at least the LinkedIn-Lynda '091 website/web app's "lynda_history_member" functionality, LinkedIn supplies, from the LinkedIn-Lynda '091 Product website/web app virtual web server computer, a user list to the user (e.g., the LinkedIn user "lyndaYser"), the user list comprising an identification of each such content viewed by the user. A LinkedIn-Lynda '091 Product White Paper entitled "Surviving the Silver Tsunami" states that "Using API technology, the cloud-based content, reporting

capabilities, and administrative functions of lynda.com can be accessed from anywhere, not just at the jobsite."[154]



Lynda Course History Web Page, LYNDA.COM WEBSITE (last visited March 2016), available at: http://www.lynda.com/CourseHistory.

461. On information and belief, the LinkedIn-Lynda '091 Product presents content viewed by the user to the user requesting such content from the user list. For example, through at least the LinkedIn-Lynda '091 Product website/web app's "lynda_history_member" functionality, the LinkedIn-Lynda '091 Product presents to the user (e.g., the "lyndaUser") content viewed by the user requesting such content from the user list.

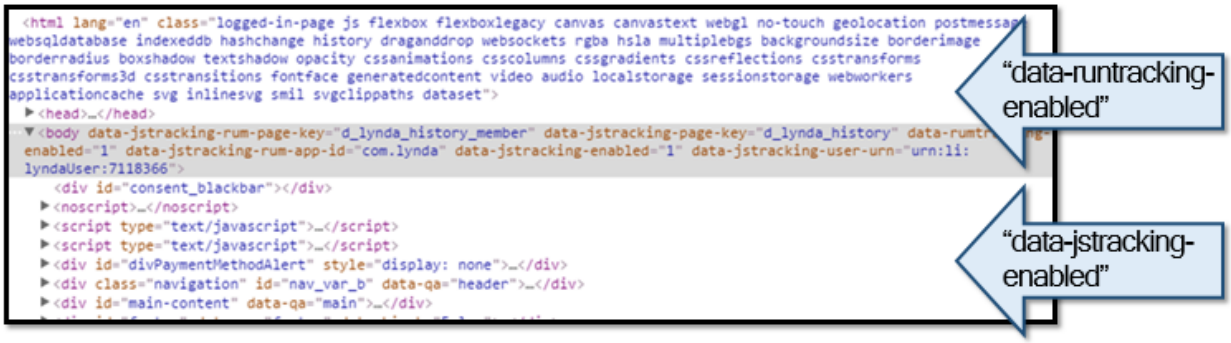
462. On information and belief, the LinkedIn-Lynda '091 Product supplies content to the user drawn from the user list. In addition, the LinkedIn-Lynda '091 Product includes a Search API, Courses API, and Reports API. The LinkedIn-Lynda '091 Product Search API enables functionality for creating learning paths of courses and links, the ability to identify and retrieve courses with the Learning Management System ("LMS"), and generation of a playlist or learning path of course results/links.

463. On information and belief, the LinkedIn-Lynda '091 Product documentation states that to access content (training materials) a client computer needs to have access to the

[154] *Surviving the Silver Tsunami*, LYNDA.COM WHITE PAPER at 6 (February2015).

following addresses: s7.addthis.com cdn.lynda.com, www.google-analytics.com, dnn506yrbagrg.cloudfront.net, www.googletagmanager.com, ct1.addthis.com, d31qbv1cthcecs.cloudfront.net, a.adroll.com, munchkin.marketo.net, cc.chango.com, d5nxst8fruw4z.cloudfront.net, www.google.com, bh.contextweb.com, r.casalemedia.com, cache.btrll.com, cdn.spotxchange.com, platform.twitter.com, connect.facebook.net, b.scorecardresearch.com, static.ak.facebook.com, s-static.ak.facebook.com, and fbstatic-a.akamaihd.net.

464. On information and belief, the LinkedIn-Lynda '091 Product permits a logged-in user to access the computer through the requesting client to view at least two different contents in the plurality of contents. Further, the LinkedIn-Lynda '091 Product enables authentication of a user through protocols including the Central Authentication Service protocol, Single Sign-On authentication, Security Assertion Markup Language 2.0 authentication, Patron API authentication, and Internet Protocol Address Authentication. The LinkedIn-Lynda '091 Product documentation states that "after logging in, the home page will show the last course you watched. Access all of your settings, including my account, course history, and playlists, from the drop-down menu in the top right corner of any mobile site page." The below screenshot shows that when a LinkedIn-Lynda '091 webpage is loaded content is identified with a unique tracking reference.



LinkedIn Advertising Tutorial, LYNDA.COM WEBSITE (last visited March 2016), available at: http://www.lynda.com/LinkedIn-tutorials/What-well-cover/370801/406256-4.html

465. On information and belief, the LinkedIn-Lynda '091 Product associates each data object with a surf code. Code that is associated with a data object includes: "Data-jstracking-

rum-page-key," "Data-jstracking-page-key," "Data-rumtracking-enabed," and "Data-jstracking-user-urn." Further, LinkedIn-Lynda '091 Product documentation states that "The lynda.com system is able to track when a member watches and finishes a movie in a title."

466. On information and belief, a 2015 white paper describing the LinkIn-Lynda '091 Product states "lynda.com has robust reporting capabilities that can easily integrate with other enterprise systems via APIs. Administrative reports measure numerous aspects of engagement by learners, including: Time spent on lynda.com by users, teams, or an entire organization, Courses viewed and completed by users, teams, or an entire organization, Courses with the most views, and Achievement."[155]

467. On information and belief, LinkedIn has directly infringed and continues to directly infringe the '091 patent by, among other things, making, using, offering for sale, and/or selling products and/or services for web content management, including but not limited to, the LinkedIn-Lynda '091 Product, which includes infringing web content management technologies.

468. By making, using, testing, offering for sale, and/or selling web content management products and services, including but not limited to the LinkedIn-Lynda '091 Product, LinkedIn has injured UnoWeb and is liable to UnoWeb for directly infringing one or more claims of the '091 patent, including at least claim 1, pursuant to 35 U.S.C. § 271(a).

469. On information and belief, LinkedIn also indirectly infringes the '091 patent by actively inducing infringement under 35 U.S.C. § 271(b), at least as of the date of service of this Complaint.

470. On information and belief, LinkedIn has had knowledge of the '091 patent since at least service of this Complaint or shortly thereafter, and on information and belief, LinkedIn knew of the '091 patent and knew of its infringement, including by way of this lawsuit.

471. On information and belief, LinkedIn intended to induce patent infringement by third-party customers and users of the LinkedIn-Lynda '091 Product and had knowledge that the

[155] *Building Successful Corporate Elearning Programs*, LYNDA.COM WHITE PAPER at 8 (January 2015).

inducing acts would cause infringement or was willfully blind to the possibility that its inducing acts would cause infringement. LinkedIn specifically intended and was aware that the normal and customary use of the accused products would infringe the '091 patent. LinkedIn performed the acts that constitute induced infringement, and would induce actual infringement, with the knowledge of the '091 patent and with the knowledge, that the induced acts would constitute infringement. For example, LinkedIn provides the LinkedIn-Lynda '091 Product that has the capability of operating in a manner that infringes one or more of the claims of the '091 patent, including at least claim 1, and LinkedIn further provides documentation and training materials that cause customers and end users of the LinkedIn-Lynda '091 Product to utilize the product in a manner that directly infringe one or more claims of the '091 patent. By providing instruction and training to customers and end-users on how to use the LinkedIn-Lynda '091 Product in a manner that directly infringes one or more claims of the '091 patent, including at least claim 1, LinkedIn specifically intended to induce infringement of the '091 patent. On information and belief, LinkedIn engaged in such inducement to promote the sales of the LinkedIn-Lynda '091 Product, *e.g.*, through user guides, product support, marketing materials, and training materials to actively induce the users of the accused products to infringe the '091 patent.[156] Accordingly, LinkedIn has induced and continues to induce users of the accused product to use the accused product in its ordinary and customary way to infringe the '091 patent, knowing that such use constitutes infringement of the '091 patent.

472. To the extent applicable, the requirements of 35 U.S.C. § 287(a) have been met with respect to the '091 patent.

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[156] *Lynda Frequently Asked Questions*, LYNDA.COM WEBSITE (last visited March 2016), available at: http://www.lynda.com/frequently-asked-questions; *Building Successful Corporate Elearning Programs*, LYNDA.COM WHITE PAPER (January 2015); *How to use Lynda*, LYNDA.COM VIDEO DOCUMENTATION (last visited March 2016), available at: https://www.lynda.com/Business-tutorials/How-use-Lynda-com/77683-2.html; *Lynda Classroom Getting Started Guide*, LYNDA.COM DOCUMENTATION (August 2014), available at: http://cdn.lynda.com/cms/asset/text/lyndaClassroomGettingStartedGuide-1541496078.pdf; *Surviving The Silver Tsunami*, LYNDA.COM WHITE PAPER (February2015); *Lynda.com 3rd Parties*, LYNDA.COM DOCUMENTATION (2013), *available at:* https://cdn.lynda.com/cms/asset/text/LDC3rdparties1671099996.pdf.

473. As a result of LinkedIn's infringement of the '091 patent, UnoWeb has suffered monetary damages, and seeks recovery in an amount adequate to compensate for LinkedIn's infringement, but in no event less than a reasonable royalty for the use made of the invention by LinkedIn together with interest and costs as fixed by the Court, and LinkedIn will continue to suffer damages in the future unless LinkedIn's infringing activities are enjoined by this Court.

474. Unless a permanent injunction is issued enjoining LinkedIn and its agents, servants, employees, representatives, affiliates, and all others acting or in active concert therewith from infringing the '091 patent, UnoWeb will be greatly and irreparably harmed.

COUNT VI
INFRINGEMENT OF U.S. PATENT NO. 7,987,139

475. UnoWeb references and incorporates by reference the preceding paragraphs of this Complaint as if fully set forth herein.

476. LinkedIn makes, uses, sells, and/or offers for sale in the United States products and/or services for internet advertising revenue sharing.

477. LinkedIn makes, sells, offers to sell, imports, and/or uses the LinkedIn website and mobile website (*e.g.*, http://www.LinkedIn.com, http://m.LinkedIn.com) and LinkedIn mobile applications (*e.g.*, LinkedIn for iOS native application; LinkedIn for Android native application; LinkedIn for Windows Mobile native application), and these products include functionality for enabling LinkedIn Network Display (collectively, the "LinkedIn '139 Product").

478. On information and belief, the LinkedIn '139 Product includes internet advertising functionality.

479. On information and belief, the LinkedIn '139 Product is available to businesses and individuals throughout the United States.

480. On information and belief, the LinkedIn '139 Product is provided to businesses and individuals located in the Eastern District of Texas.

481. On information and belief, the LinkedIn '139 Product enables web site development based on advertising revenue sharing. LinkedIn states that its Network Display product enables publishers of content to monetize their content.

482. On information and belief, the LinkedIn '139 Product displays paid content from an advertiser through a webpage on a web site. For example, LinkedIn states that LinkedIn Network Display tracks and delivers content to logged-in users.

> LinkedIn Network Display allows you to:
> - Reach the LinkedIn audience even when these members are not on LinkedIn.com.
> - Use LinkedIn's first-party data from professional members' profiles to target messages to your audience and track the performance of your campaigns.
> - Measure how many new visitors your campaigns drive to your site and the engagement of those visitors on your tagged landing pages.

Benefits of Using LinkedIn Network Display, LINKEDIN MARKETING SOLUTIONS HELP (last visited March 2016), available at https://www.linkedin.com/help/lms/topics/8062/8063/65498.

483. On information and belief, LinkedIn requires its members to log into the LinkedIn Website and setup an account. "LinkedIn users are logged-in, which means the company holds rich data on them such as their age, job position, connections, and browsing behavior."[157]

484. On information and belief, LinkedIn documentation states that the display of paid content on a non-paid content webpage requires an "Insight Tag" which allows accurate targeting so that the same paid content is being displayed to the same user. "Once a partner site places the LinkedIn Insight Tag on their website, LinkedIn can begin to generate LinkedIn browser cookies for website visitors to those sites, making these visitors eligible to receive targeted advertising from Network Display campaigns."[158] Further, the below flowchart from LinkedIn shows that process whereby LinkedIn is able to control the redisplay of paid content (advertising) with non-paid content (partner website).

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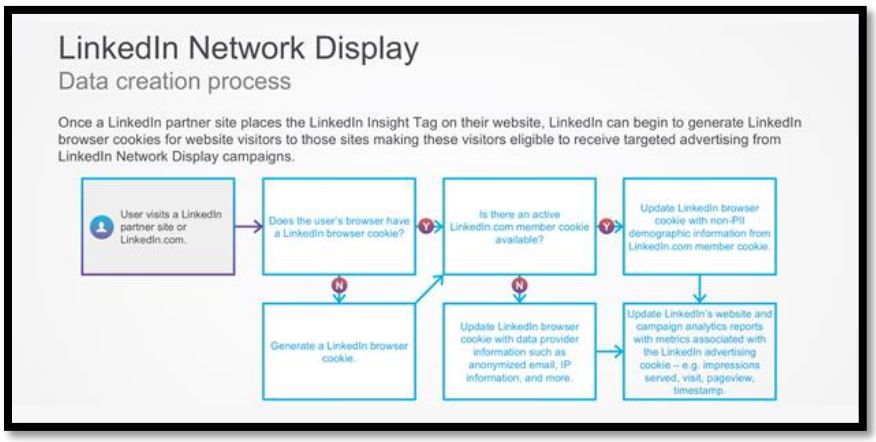
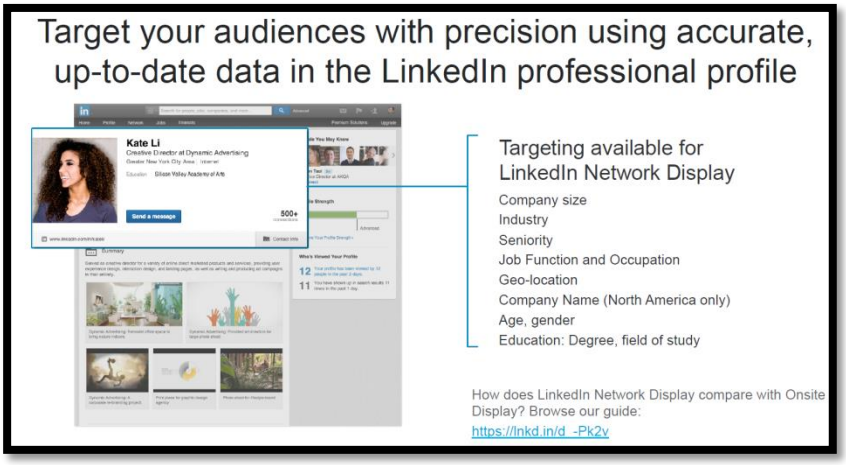
[157] Laura O'Reilly, *LinkedIn Has Launched An Audience Network, Its First Big Leap Into Ad Tech*, BUSINESS INSIDER (February 19, 2015), available at: http://www.businessinsider.com/linkedin-launches-an-ad-network-2015-2.

[158] *LinkedIn Network Display Privacy and Security*, LINKEDIN MARKETING SOLUTIONS HELP (last visited March 2016), available at: https://www.linkedin.com/help/lms/topics/8062/8083/65805



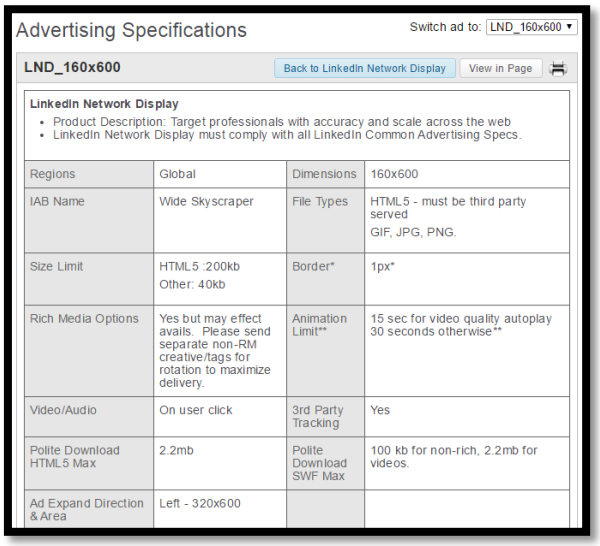
LinkedIn Network Display Privacy and Security, LINKEDIN MARKETING SOLUTIONS HELP (last visited March 2016), available at: https://www.linkedin.com/help/lms/topics/8062/8083/65805

485. On information and belief, the LinkedIn '139 Product enables registering a content provider to provide non-paid content. For example, LinkedIn Network Display displays paid content (advertisements) through a webpage on a website (e.g., TheAtlantic.com, Reuters.com, Bloomberg.com). The following presentation from LinkedIn provides further details on how paid content is displayed on a web page.



Andrew Kaplan and Cassandra Clark, WEBINAR: GETTING STARTED WITH DISPLAY ON AND OFF LINKEDIN (2015).

486. On information and belief, the below screenshot from LinkedIn shows that specifications for paid content that will be displayed on a webpage accessible to a user.



Advertising Specifications

Switch ad to: LND_160x600

LND_160x600

Back to LinkedIn Network Display | View in Page

LinkedIn Network Display

- Product Description: Target professionals with accuracy and scale across the web
- LinkedIn Network Display must comply with all LinkedIn Common Advertising Specs.

Regions	Global	Dimensions	160x600
IAB Name	Wide Skyscraper	File Types	HTML5 - must be third party served GIF, JPG, PNG.
Size Limit	HTML5 :200kb Other: 40kb	Border*	1px*
Rich Media Options	Yes but may effect avails. Please send separate non-RM creative/tags for rotation to maximize delivery.	Animation Limit**	15 sec for video quality autoplay 30 seconds otherwise**
Video/Audio	On user click	3rd Party Tracking	Yes
Polite Download HTML5 Max	2.2mb	Polite Download SWF Max	100 kb for non-rich, 2.2mb for videos.
Ad Expand Direction & Area	Left - 320x600		

LinkedIn Network Display Specifications, LINKEDIN.COM WEBSITE (last visited March 2016), available at: http://adspecs.liasset.com/category.php?category=LinkedIn+Network+Display; *LinkedIn Network Display – Overview.*

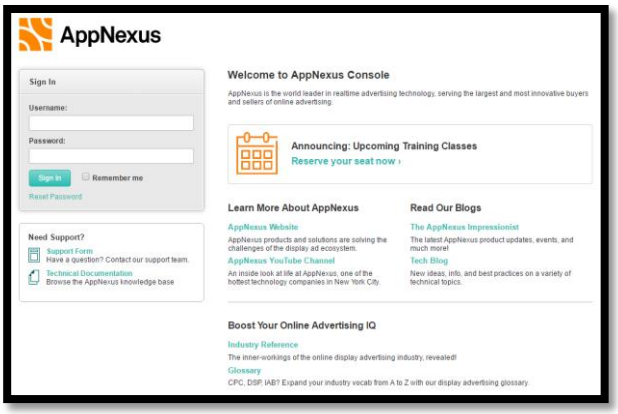
487. On information and belief, the LinkedIn '139 Product displays paid content from an advertiser through a webpage of the website on a computer. For example, paid content is displayed based on the embedding of referencing code.

488. On information and belief, the LinkedIn '139 Product registers a content provider to prepare non-paid content for the webpage on a computer.

489. Specifically, LinkedIn Display Network comprises registered content providers such as TheAtlantic.com, Reuters.com, Bloomberg.com, etc. These content providers prepare non-paid content that is displayed as a web page. According to LinkedIn documentation, LinkedIn only displays advertising on the website of content providers that have been vetted and registered by LinkedIn. These include websites such as those that LinkedIn already has a relationship with: "Through relationships with top publishers and leading ad exchanges, LinkedIn maintains its own internal whitelist of websites where marketers' Network Display ads might appear in a campaign. LinkedIn monitors this list regularly using third-party ad verification software to ensure a brand-safe environment for advertisers."[159] In addition,

[159] *LinkedIn Network Display – Overview*, LINKEDIN MARKETING SOLUTIONS HELP (last visited March 2016), available at: https://www.linkedin.com/help/lms/answer/65496.

AppNexus, on behalf of LinkedIn, handles the registration of content providers. "Display impressions are purchased through multiple advertising exchanges with AppNexus. Impressions are not purchased blindly, but through a whitelist set of sites curated by LinkedIn Marketing Solutions."[160] Content providers that are signed up through AppNexus are done through a web interface as shown below.



Appnexus Console, APPNEXUS WEBSITE (last visited March 2016), *available at:* https://console.appnexus.com/

490. On information and belief, publishers that make available content through LinkedIn's AppNexus process are required to sign up for the AppNexus exchange using the AppNexus website available at: https://www.appnexus.com/en/publishers/publisher-ssp.

491. On information and belief, LinkedIn sets a time-period before which paid content can be redisplayed to a registered user. LinkedIn, by tracking whether a viewer of a webpage is a registered LinkedIn member, is able to determine whether to serve a specific advertisement to that user. Further, content will not be redisplayed to a registered user before a given period has occurred (e.g., X number of days). "The Insight Tag creates a unique LinkedIn browser cookie (and associated ID) on a visitor's browser to allow for targeted advertising from LinkedIn."[161]

> We operate daily batch process to check all impressions served across our network. Publishers demonstrating abnormally high click-through rates or no clicks after

[160] *LinkedIn Marketing Solutions Display and Social Inventory*, LINKEDIN MARKETING SOLUTIONS HELP (last visited March 2016), available at: https://www.linkedin.com/help/lms/answer/65801.

[161] *LinkedIn Insignt Tag Privacy and Security – Frequently Asked Questions*, LINKEDIN MARKETING SOLUTIONS HELP (last visited March 2016).

> defined impression volumes are automatically excluded from all campaigns. In addition, we leverage our ad verification partner to identify any potentially fraudulent clicks or impressions.

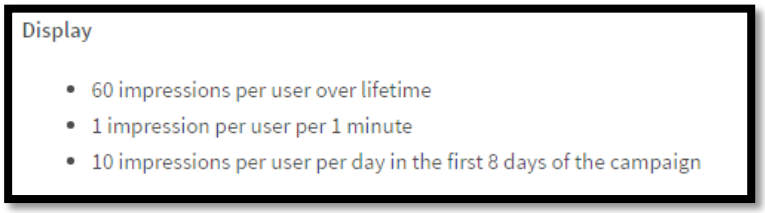
LinkedIn Insight Tag Privacy and Security – Frequently Asked Questions, LINKEDIN MARKETING SOLUTIONS HELP (last visited March 2016).

492. On information and belief, LinkedIn documentation states that LinkedIn utilizes verification technology to "ensure brand safety."

> **Utilize ad verification** - LinkedIn utilizes third-party ad verification technology on LinkedIn Network Display and LinkedIn Lead Accelerator impressions served. In addition, advertisers can also include their own ad verification tracking within their third-party creative tags.

LinkedIn Marketing Solutions Commitment to Privacy and Brand Safety, LINKEDIN MARKETING SOLUTIONS HELP (last visited March 2016), available at: https://www.linkedin.com/help/lms/answer/65806?query=prevent

493. On information and belief, LinkedIn products including LinkedIn Network Display make use of "Frequency Capping." LinkedIn describes the use of Frequency Capping as: "Frequency capping refers to the maximum number of ads that can be shown to a user over a given period of time. Lead Accelerator enables advertisers to serve ads across multiple channels, and frequency caps vary by channel. ***These caps are standard and implemented across all programs.***"[162] The caps utilized by LinkedIn take into account both time period thresholds and a maximum number of times paid content can be displayed to a registered user.



LinkedIn Frequency Caps for Lead Accelerator, LINKEDIN HELP (last visited March 2016), available at: https://www.linkedin.com/help/linkedin/answer/67627?lang=en (emphasis added).

494. On information and belief, LinkedIn receives payment from the advertiser for the number of interactions users have with the paid content.

495. On information and belief, the LinkedIn '139 Product totals a number of times the paid content is displayed to the registered user. "Network Display is sold on a guaranteed cost

[162] *LinkedIn Frequency Caps For Lead Accelerator*, LINKEDIN HELP (last visited March 2016), available at: https://www.linkedin.com/help/linkedin/answer/67627?lang=en (emphasis added).

per thousand impressions (CPM) basis. LinkedIn determines CPMs based primarily on the audience you would like to target. Please contact your LinkedIn representative if you have any questions about pricing.'[163]

496. On information and belief, LinkedIn receives payment from the advertiser for the number of times the paid content is displayed to the registered user. LinkedIn Network Display charges based on number of impressions (number of times the paid content is displayed to a registered user). "Pay-per-1,000 impressions (CPM): You specify a set cost for each 1,000 times your ad is shown, no matter how many clicks you receive. This is a good option if you care more about the number of times your ad is shown than the number of clicks."[164] Further LinkedIn states that "When running Text Ads and Sponsored Updates as a self-service online advertiser, your credit card is charged as follows: Daily if your balance is $100.00 USD or more; Weekly if your balance is $20.00 USD or more; 1st of the month: For the total balance due ($0.01 USD or higher)."[165]

497. On information and belief, the LinkedIn '139 Product pays the content provider for the number of interactions of the user with the paid content.

498. On information and belief, LinkedIn has directly infringed and continues to directly infringe the '139 patent by, among other things, making, using, offering for sale, and/or selling products and/or services for internet advertising revenue sharing, including but not limited to, the LinkedIn '139 Product, which includes internet advertising revenue sharing technologies.

499. By making, using, testing, offering for sale, and/or selling internet advertising revenue sharing products and services, including but not limited to the LinkedIn'139 Product,

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[163] *LinkedIn Network Display Pricing - Frequently Asked Questions*, LINKEDIN MARKETING SOLUTIONS HELP (last visited March 2016), available at. https://www.linkedin.com/help/lms/answer/65509?query=network%20display%20cpm

[164] *LinkedIn's Advertising Cost*, LINKEDIN MARKETING SOLUTIONS HELP (last visited March 2016), available at: https://www.linkedin.com/help/lms/answer/7431

[165] *Billing Frequency for Self-Service Advertising*, LINKEDIN MARKETING SOLUTIONS HELP (last visited March 2016), available at: https://www.linkedin.com/help/lms/answer/12411

LinkedIn has injured UnoWeb and is liable to UnoWeb for directly infringing one or more claims of the '139 patent, including at least claim 2, pursuant to 35 U.S.C. § 271(a).

500. On information and belief, LinkedIn also indirectly infringes the '139 patent by actively inducing infringement under 35 U.S.C. § 271(b), at least as of the date of service of this Complaint.

501. On information and belief, LinkedIn has had knowledge of the '139 patent since at least service of this Complaint or shortly thereafter, and on information and belief, LinkedIn knew of the '139 patent and knew of its infringement, including by way of this lawsuit.

502. On information and belief, LinkedIn intended to induce patent infringement by third-party customers and users of the LinkedIn '139 Product and had knowledge that the inducing acts would cause infringement or was willfully blind to the possibility that its inducing acts would cause infringement. LinkedIn specifically intended and was aware that the normal and customary use of the accused products would infringe the '139 patent. LinkedIn performed the acts that constitute induced infringement, and would induce actual infringement, with the knowledge of the '139 patent and with the knowledge, that the induced acts would constitute infringement. For example, LinkedIn provides the LinkedIn '139 Product that has the capability of operating in a manner that infringe one or more of the claims of the '139 patent, including at least claim 2, and LinkedIn further provides documentation and training materials that cause customers and end users of the LinkedIn '139 Product to utilize the products in a manner that directly infringe one or more claims of the '139 patent. By providing instruction and training to customers and end-users on how to use the LinkedIn '139 Product in a manner that directly infringes one or more claims of the '139 patent, including at least claim 2, LinkedIn specifically intended to induce infringement of the '139 patent. On information and belief, LinkedIn engaged in such inducement to promote the sales of the LinkedIn '139 Product, *e.g.*, through advertising guides manuals, product support, marketing materials, and training materials to

actively induce the users of the accused products to infringe the '139 patent.[166] Accordingly, LinkedIn has induced and continues to induce users of the accused product to use the accused product in its ordinary and customary way to infringe the '139 patent, knowing that such use constitutes infringement of the '139 patent.

503. To the extent applicable, the requirements of 35 U.S.C. § 287(a) have been met with respect to the '139 patent.

504. As a result of LinkedIn's infringement of the '139 patent, UnoWeb has suffered monetary damages, and seeks recovery in an amount adequate to compensate for LinkedIn's infringement, but in no event less than a reasonable royalty for the use made of the invention by LinkedIn together with interest and costs as fixed by the Court, and UnoWeb will continue to suffer damages in the future unless LinkedIn's infringing activities are enjoined by this Court.

505. Unless a permanent injunction is issued enjoining LinkedIn and its agents, servants, employees, representatives, affiliates, and all others acting or in active concert therewith from infringing the '139 patent, UnoWeb will be greatly and irreparably harmed.

COUNT VII
INFRINGEMENT OF U.S. PATENT NO. 7,580,858

506. UnoWeb references and incorporates by reference the preceding paragraphs of this Complaint as if fully set forth herein.

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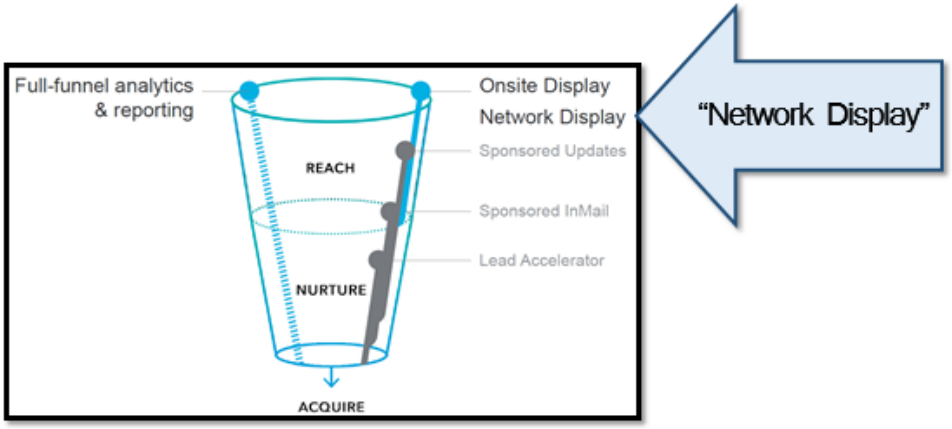
[166] *LinkedIn Lead Accelerator Agreement*, LINKEDIN AGREEMENTS (December 18, 2014), *LinkedIn Network Display Specifications*, LINKEDIN.COM WEBSITE (last visited March 2016), available at: http://adspecs.liasset.com/category.php?category=LinkedIn+Network+Display; *LinkedIn Network Display – Overview*, LinkedIn Help Website (last visited March 2016), available at: https://www.linkedin.com/help/linkedin/answer/65496; *LinkedIn Network Display Privacy and Security*, LINKEDIN HELP WEBSITE (last visited March 2016), *available at:* https://www.linkedin.com/help/linkedin/answer/65805; *LinkedIn Network Display Campaign - Frequently Asked Questions*, LINKEDIN MARKETING SOLUTIONS HELP (last visited March 2016), *available at:* https://www.linkedin.com/help/lms/topics/8062/8063/65502; Russell Glass, REAL IMPACT: HOW BIZO BUILT A DIFFERENTIATED BUSINESS (November 11, 2014), available at: https://www.youtube.com/watch?v=S84GDDiKxhw; *LinkedIn Marketing solutions Platform Overview*, LINKEDIN BUSINESS SOLUTIONS (March 2015) THE SOPHISTICATED MARKETERS GUIDE TO LINKEDIN (2015); Andrew Kaplan and Cassandra Clark, WEBINAR: GETTING STARTED WITH DISPLAY ON AND OFF LINKEDIN (2015).

507. LinkedIn makes, uses, sells, and/or offers for sale in the United States products and/or services for internet advertising revenue sharing.

508. LinkedIn makes, sells, offers to sell, imports, and/or uses the LinkedIn website and mobile website (e.g., http://www.LinkedIn.com, http://m.LinkedIn.com) and LinkedIn mobile applications (e.g., LinkedIn for iOS native application; LinkedIn for Android native application; LinkedIn for Windows Mobile native application). These products include functionality from LinkedIn Network Display (collectively, the "LinkedIn '858 Product").

509. On information and belief, the LinkedIn '858 Product includes internet advertising functionality.



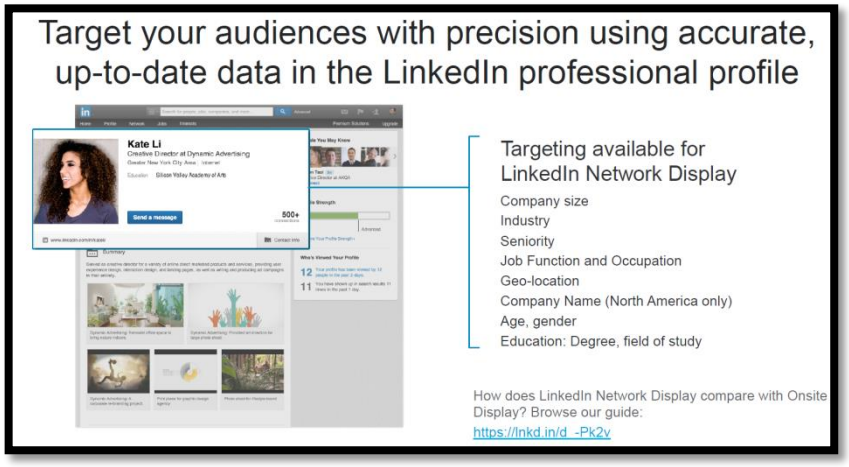
Andrew Kaplan and Cassandra Clark, WEBINAR: GETTING STARTED WITH DISPLAY ON AND OFF LINKEDIN at 12 (2015).

510. On information and belief, the LinkedIn '858 Product is available to businesses and individuals throughout the United States.

511. On information and belief, the LinkedIn '858 Product is provided to businesses and individuals located in the Eastern District of Texas.

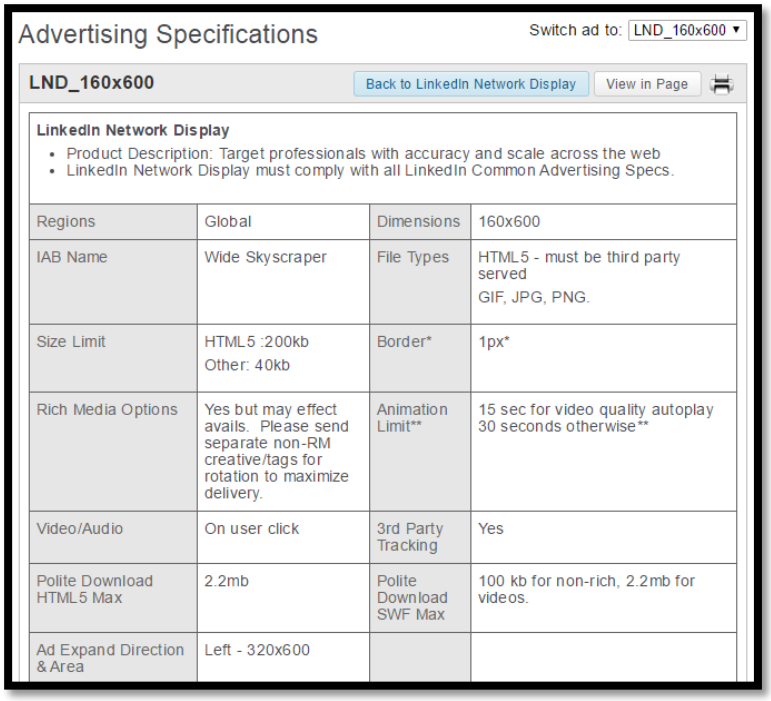
512. On information and belief, the LinkedIn '858 Product displays paid content from an advertiser through a webpage of the web site on a computer. For example, LinkedIn Network Display displays paid content (advertisements) through a webpage on a website (e.g.,

TheAtlantic.com, Reuters.com, Bloomberg.com). The following presentation from LinkedIn provides further details on how paid content is displayed on a web page.



Andrew Kaplan and Cassandra Clark, WEBINAR: GETTING STARTED WITH DISPLAY ON AND OFF LINKEDIN (2015).

513. On information and belief, the below screen shot from LinkedIn shows that specifications for paid content that will be displayed on a webpage accessible to a user.



Advertising Specifications — Switch ad to: LND_160x600

LND_160x600 — Back to LinkedIn Network Display | View in Page

LinkedIn Network Display
- Product Description: Target professionals with accuracy and scale across the web
- LinkedIn Network Display must comply with all LinkedIn Common Advertising Specs.

Regions	Global	Dimensions	160x600
IAB Name	Wide Skyscraper	File Types	HTML5 - must be third party served GIF, JPG, PNG.
Size Limit	HTML5 :200kb Other: 40kb	Border*	1px*
Rich Media Options	Yes but may effect avails. Please send separate non-RM creative/tags for rotation to maximize delivery.	Animation Limit**	15 sec for video quality autoplay 30 seconds otherwise**
Video/Audio	On user click	3rd Party Tracking	Yes
Polite Download HTML5 Max	2.2mb	Polite Download SWF Max	100 kb for non-rich, 2.2mb for videos.
Ad Expand Direction & Area	Left - 320x600		

LinkedIn Network Display Specifications, LINKEDIN.COM WEBSITE (last visited March 2016), available at: http://adspecs.liasset.com/category.php?category=LinkedIn+Network+Display; *LinkedIn Network Display – Overview.*

514. On information and belief, the LinkedIn '858 Product registers a content provider to prepare non-paid content for the webpage on a computer. Specifically, LinkedIn Network Display comprises registered content providers such as TheAtlantic.com, Reuters.com, Bloomberg.com, etc. These content providers prepare non-paid content that is displayed as a web page. According to LinkedIn documentation, LinkedIn only displays advertising on the website of content providers that have been vetted and registered by LinkedIn. These include websites such as those that LinkedIn already has a relationship with: "Through relationships with top publishers and leading ad exchanges, LinkedIn maintains its own internal whitelist of websites where marketers' Network Display ads might appear in a campaign. LinkedIn monitors this list regularly using third-party ad verification software to ensure a brand-safe environment for advertisers."[167]

515. On information and belief, the LinkedIn '858 Product totals the number of interactions by the user with the paid content. For example, LinkedIn documentation states: "Network Display is sold on a guaranteed cost per thousand impressions (CPM) basis. LinkedIn determines CPMs based primarily on the audience you would like to target. Please contact your LinkedIn representative if you have any questions about pricing."[168]

516. On information and belief, the LinkedIn '858 Product receives payment from the advertiser for the number of interactions of the user with the paid content. LinkedIn states that "When running Text Ads and Sponsored Updates as a self-service online advertiser, your credit card is charged as follows: Daily if your balance is $100.00 USD or more; Weekly if your balance is $20.00 USD or more; 1st of the month: For the total balance due ($0.01 USD or higher)."[169]

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[167] *LinkedIn Network Display – Overview*, LINKEDIN MARKETING SOLUTIONS HELP (last visited March 2016), available at: https://www.linkedin.com/help/lms/answer/65496.

[168] *LinkedIn Network Display Pricing - Frequently Asked Questions*, LINKEDIN MARKETING SOLUTIONS HELP (last visited March 2016), available at. https://www.linkedin.com/help/lms/answer/65509?query=network%20display%20cpm

[169] *Billing Frequency for Self-Service Advertising*, LINKEDIN MARKETING SOLUTIONS HELP (last visited March 2016), available at: https://www.linkedin.com/help/lms/answer/12411

517. On information and belief, the LinkedIn '858 Product pays the content provider for the number of interactions of the user with the paid content.

518. On information and belief, the LinkedIn '858 Product enables the interaction of a registered user clicking on a link to a new link destination within the paid content, provided that a second and subsequent clicking on the link by the same registered user is not an interaction to be counted in the step of totaling a number of interactions unless it exceeds a "frequency threshold."

519. On information and belief, LinkedIn has directly infringed and continues to directly infringe the '858 patent by, among other things, making, using, offering for sale, and/or selling products and/or services for internet advertising revenue sharing, including but not limited to, the LinkedIn '858 Product, which includes infringing internet advertising revenue sharing technologies.

520. By making, using, testing, offering for sale, and/or selling internet advertising revenue sharing products and services, including but not limited to the LinkedIn '858 Product, LinkedIn has injured UnoWeb and is liable to UnoWeb for directly infringing one or more claims of the '858 patent, including at least claim 4, pursuant to 35 U.S.C. § 271(a).

521. On information and belief, LinkedIn also indirectly infringes the '858 patent by actively inducing infringement under 35 U.S.C. § 271(b), at least as of the date of service of this Complaint.

522. On information and belief, LinkedIn has had knowledge of the '858 patent since at least service of this Complaint or shortly thereafter, and on information and belief, LinkedIn knew of the '858 patent and knew of its infringement, including by way of this lawsuit.

523. On information and belief, LinkedIn intended to induce patent infringement by third-party customers and users of the LinkedIn '858 Product and had knowledge that the inducing acts would cause infringement or was willfully blind to the possibility that its inducing acts would cause infringement. LinkedIn specifically intended and was aware that the normal

and customary use of the accused products would infringe the '858 patent. LinkedIn performed the acts that constitute induced infringement, and would induce actual infringement, with the knowledge of the '858 patent and with the knowledge, that the induced acts would constitute infringement. For example, LinkedIn provides the LinkedIn '858 Product that has the capability of operating in a manner that infringe one or more of the claims of the '858 patent, including at least claim 4, and LinkedIn further provides documentation and training materials that cause customers and end users of the LinkedIn '858 Product to utilize the products in a manner that directly infringe one or more claims of the '858 patent. By providing instruction and training to customers and end-users on how to use the LinkedIn '858 Product in a manner that directly infringes one or more claims of the '858 patent, including at least claim 4, LinkedIn specifically intended to induce infringement of the '858 patent. On information and belief, LinkedIn engaged in such inducement to promote the sales of the LinkedIn '858 Product, *e.g.*, through advertising guides manuals, product support, marketing materials, and training materials to actively induce the users of the accused products to infringe the '858 patent.[170] Accordingly, LinkedIn has induced and continues to induce users of the accused product to use the accused product in its ordinary and customary way to infringe the '858 patent, knowing that such use constitutes infringement of the '858 patent.

524. To the extent applicable, the requirements of 35 U.S.C. § 287(a) have been met with respect to the '858 patent.

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[170] *LinkedIn Lead Accelerator Agreement*, LINKEDIN AGREEMENTS (December 18, 2014), *LinkedIn Network Display Specifications*, LINKEDIN.COM WEBSITE (last visited March 2016), available at: http://adspecs.liasset.com/category.php?category=LinkedIn+Network+Display; *LinkedIn Network Display – Overview*, LinkedIn Help Website (last visited March 2016), available at: https://www.linkedin.com/help/linkedin/answer/65496; *LinkedIn Network Display Privacy and Security*, LINKEDIN HELP WEBSITE (last visited March 2016), *available at:* https://www.linkedin.com/help/linkedin/answer/65805; *LinkedIn Network Display Campaign - Frequently Asked Questions*, LINKEDIN MARKETING SOLUTIONS HELP (last visited March 2016), *available at:* https://www.linkedin.com/help/lms/topics/8062/8063/65502; Russell Glass, REAL IMPACT: HOW BIZO BUILT A DIFFERENTIATED BUSINESS (November 11, 2014), available at: https://www.youtube.com/watch?v=S84GDDiKxhw; *LinkedIn Marketing solutions Platform Overview*, LINKEDIN BUSINESS SOLUTIONS (March 2015) THE SOPHISTICATED MARKETERS GUIDE TO LINKEDIN (2015); Andrew Kaplan and Cassandra Clark, WEBINAR: GETTING STARTED WITH DISPLAY ON AND OFF LINKEDIN (2015).

525. As a result of LinkedIn's infringement of the '858 patent, UnoWeb has suffered monetary damages, and seeks recovery in an amount adequate to compensate for LinkedIn's infringement, but in no event less than a reasonable royalty for the use made of the invention by LinkedIn together with interest and costs as fixed by the Court, and UnoWeb will continue to suffer damages in the future unless LinkedIn's infringing activities are enjoined by this Court.

526. Unless a permanent injunction is issued enjoining LinkedIn and its agents, servants, employees, representatives, affiliates, and all others acting or in active concert therewith from infringing the '858 patent, UnoWeb will be greatly and irreparably harmed.

COUNT VIII
INFRINGEMENT OF U.S. PATENT NO. 8,635,102

527. UnoWeb references and incorporates by reference the preceding paragraphs of this Complaint as if fully set forth herein.

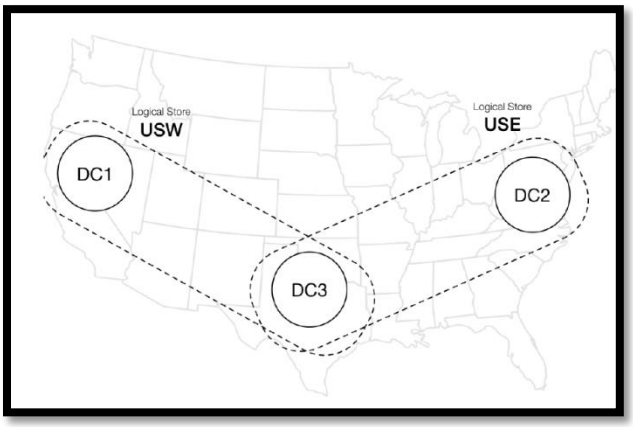
528. LinkedIn makes, uses, sells, and/or offers for sale in the United States products and/or services for targeting advertising and internet content.

529. LinkedIn makes, sells, offers to sell, imports, and/or uses the LinkedIn website and mobile website (e.g., http://www.linkedin.com, http://m.linkedin.com) and LinkedIn mobile applications (e.g., LinkedIn for iOS native application; LinkedIn for Android native application; LinkedIn for Windows Mobile native application) (collectively, the "LinkedIn '102 Product").

530. On information and belief, the LinkedIn '102 Product is available to businesses and individuals throughout the United States.

531. On information and belief, the LinkedIn '102 Product is provided to businesses and individuals located in the Eastern District of Texas.

532. On information and belief, the LinkedIn '102 Product enables a client device to be registered to a domain. The below graphic from LinkedIn documentation shows that when a LinkedIn client logs into the LinkedIn '102 Product, it is associated with one of three domains.



Espresso Onboarding Experiences, LINKEDIN ENGINEERING BLOG (September 29, 2015), available at: https://engineering.linkedin.com/espressomigrationinmail/ (Describing the assignment structure as "For this reason, a strategic decision was made to limit each member's mailbox copy to two data centers, as opposed to data everywhere.").

533. On information and belief, the importance of creating a distributed data network in which individual users are logged into a specific domain is described in LinkedIn documentation.

> According to Director of Engineering Bob Schulman, Espresso came to be "because we had a problem that had to do with scaling and agility" in the mailbox feature. It needs to store lots of data and keep consistent with users' activity. It also needs a functional search engine so users — even those with lots of messages — can find what they need in a hurry.
>
> With the previous data layer in tact, he explained, the solution for developers to solve scalability and reliability issues was doing so in the application.

Derrick Harris, *How and Why LinkedIn is Becoming an Engineering Powerhouse*, LINKEDIN ENGINEERING BLOG (Mar 3, 2013).

534. On information and belief, documentation from LinkedIn described the initial LinkedIn architecture as lacking because a "single database was under heavy load."[171] Further, LinkedIn documentation states, "As LinkedIn continued to grow, the monolithic application Leo was becoming problematic."[172]

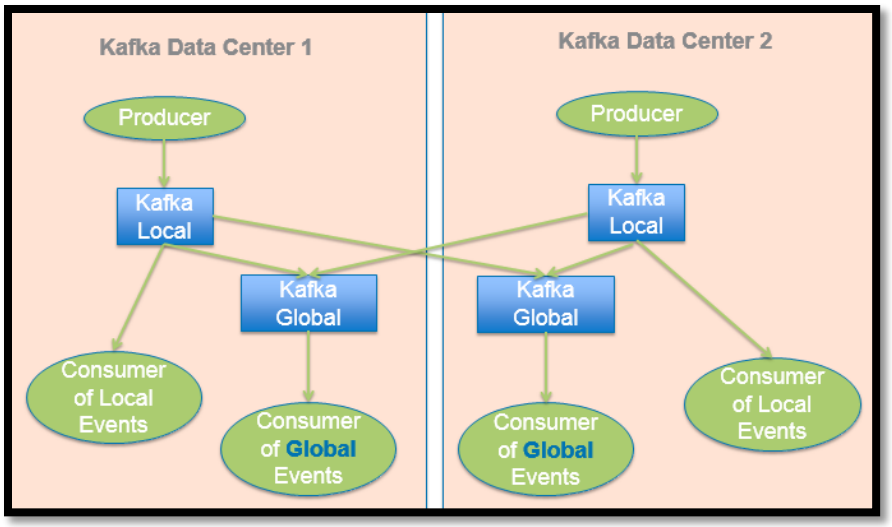
535. On information and belief, LinkedIn registers a computer devise with the server computer.

[171] Josh Clemm, SCALING LINKEDIN A BRIEF HISTORY PRESENTATION at 17 (July 2015).

[172] *Id.* at 21.

536. On information and belief, LinkedIn registers a computer device with a server computer by "Pin[ing] users to geographically close data center."[173]

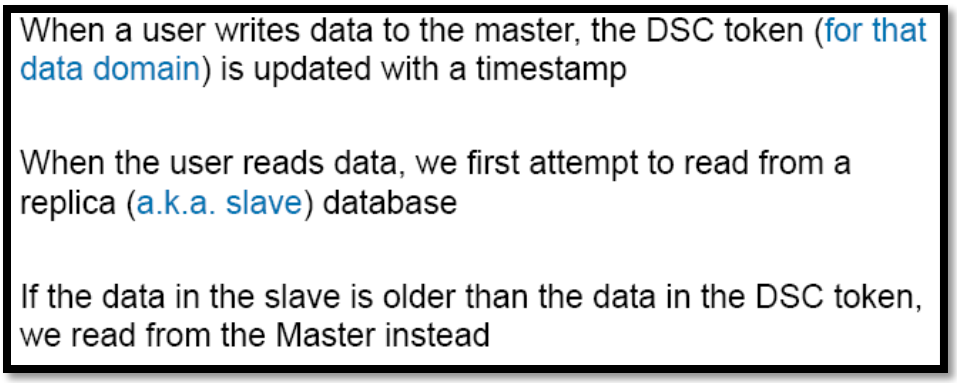
537. On information and belief, LinkedIn assigns each user to a specific data center that has its own server computer assigned to providing services and data to a user as shown below.



Sid Anand, *Software Development & Arch @ LinkedIn*, QCON SF 2014 at 47 (2014).

538. On information and belief, LinkedIn assigns a domain for the computer device, wherein the assigning is performed by the server computer. For example, the server computer using the routing tier assigns a user to a specific domain. The LinkedIn infringing product assigns a digital signature certificate token ("DSC") that LinkedIn documentation describes as acting in the following way:

[173] Josh Clemm, SCALING LINKEDIN A BRIEF HISTORY PRESENTATION at 56 (July 2015).

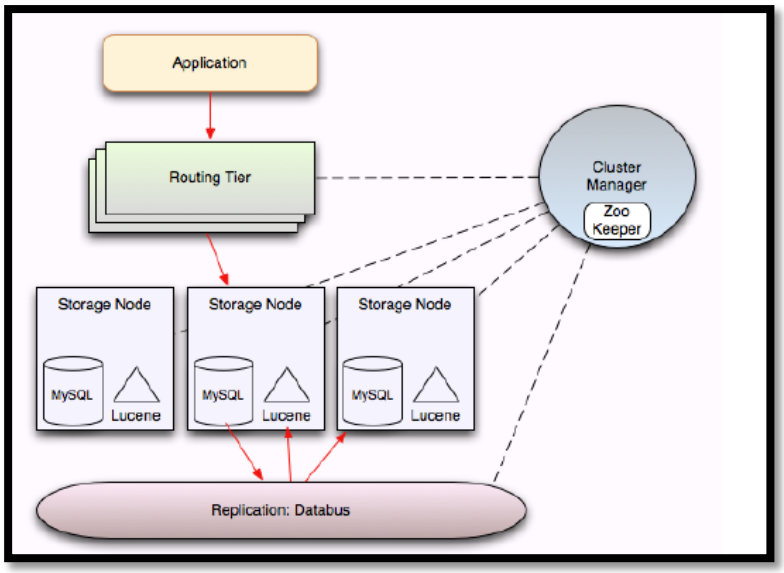


Sid Anand, *Data Infrastructure @ LinkedIn*, QCON LONDON 2012 at 15 (2012).[174]

539. On information and belief, LinkedIn stores a domain assigned for the computer device on the non-transitory storage medium, where storing is performed by the server computer. For example, after a computer device accesses the www.LinkedIn.com website the computer deice is assigned to a domain and the location of the assigned domain is stored on non-transitory storage medium.

540. On information and belief, LinkedIn manages the domain assigned for the computer device, wherein managing is performed by the server computer. For example after the domain is assigned to the computer device, the domain is managed by the server computer. The below documentation from LinkedIn show that server computer in a typical example performs the managing of the domain function and assignment to the computer device (e.g., application).

[174] *See also* Todd Palino, *Running Kafka at Scale*, LINKEDIN ENGINEERING BLOG (March 20, 2015), available at: https://engineering.linkedin.com/kafka/running-kafka-scale ("Consumers access the data locally, which simplifies their configuration and allows them to not worry about many types of cross-datacenter network problems. The producer and consumer complete the concept of tiers within our Kafka infrastructure. The producer is the first tier, the local cluster (across all datacenters) is the second, and each of the aggregate clusters is an additional tier. The consumer itself is the final tier.").



Shirshanka Das, *Data Infrastructure at LinkedIn*, XLDB 2011 at 29 (2011).

541. On information and belief, LinkedIn uses the domain assigned for the computer device to make a program or a content stored in the non-transitory storage medium available to the computer device and consumable by the computer device.

542. On information and belief, LinkedIn has directly infringed and continues to directly infringe the '102 patent by, among other things, making, using, offering for sale, and/or selling products and/or services for targeting advertising and internet content, including but not limited to, the LinkedIn '102 Product.

543. By making, using, testing, offering for sale, and/or selling products and services for targeting advertising and internet content, including but not limited to the LinkedIn'102 Product, LinkedIn has injured UnoWeb and is liable to UnoWeb for directly infringing one or more claims of the '102 patent, including at least claim 5, pursuant to 35 U.S.C. § 271(a).

544. On information and belief, LinkedIn also indirectly infringes the '102 patent by actively inducing infringement under 35 U.S.C. § 271(b), at least as of the date of service of this Complaint.

545. On information and belief, LinkedIn has had knowledge of the '102 patent since at least service of this Complaint or shortly thereafter, and on information and belief, LinkedIn knew of the '102 patent and knew of its infringement, including by way of this lawsuit.

546. On information and belief, LinkedIn intended to induce patent infringement by third-party customers and users of the LinkedIn '102 Product and had knowledge that the inducing acts would cause infringement or was willfully blind to the possibility that its inducing acts would cause infringement. LinkedIn specifically intended and was aware that the normal and customary use of the accused products would infringe the '102 patent. LinkedIn performed the acts that constitute induced infringement, and would induce actual infringement, with the knowledge of the '102 patent and with the knowledge, that the induced acts would constitute infringement. For example, LinkedIn provides the LinkedIn '102 Product that has the capability of operating in a manner that infringe one or more of the claims of the '102 patent, including at least claim 5, and LinkedIn further provides documentation and training materials that cause customers and end users of the LinkedIn '102 Product to utilize the products in a manner that directly infringe one or more claims of the '102 patent. By providing instruction and training to customers and end-users on how to use the LinkedIn '102 Product in a manner that directly infringes one or more claims of the '102 patent, including at least claim 5, LinkedIn specifically intended to induce infringement of the '102 patent. On information and belief, LinkedIn engaged in such inducement to promote the sales of the LinkedIn '102 Product, *e.g.*, through advertising guides manuals, product support, marketing materials, and training materials to actively induce the users of the accused products to infringe the '102 patent.[175] Accordingly, LinkedIn has induced and continues to induce users of the accused product to use the accused product in its ordinary and customary way to infringe the '102 patent, knowing that such use constitutes infringement of the '102 patent.

[175] *LinkedIn Network Display Privacy and Security*, LINKEDIN HELP WEBSITE (last visited March 2016), *available at:* https://www.linkedin.com/help/linkedin/answer/65805; *LinkedIn Network Display Campaign - Frequently Asked Questions*, LINKEDIN MARKETING SOLUTIONS HELP (last visited March 2016), *available at:* https://www.linkedin.com/help/lms/topics/8062/8063/65502; Russell Glass, REAL IMPACT: HOW BIZO BUILT A DIFFERENTIATED BUSINESS (November 11, 2014), available at: https://www.youtube.com/watch?v=S84GDDiKxhw; *LinkedIn Marketing solutions Platform Overview*, LINKEDIN BUSINESS SOLUTIONS (March 2015) THE SOPHISTICATED MARKETERS GUIDE TO LINKEDIN (2015); Andrew Kaplan and Cassandra Clark, WEBINAR: GETTING STARTED WITH DISPLAY ON AND OFF LINKEDIN (2015).

547. To the extent applicable, the requirements of 35 U.S.C. § 287(a) have been met with respect to the '102 patent.

548. As a result of LinkedIn's infringement of the '102 patent, UnoWeb has suffered monetary damages, and seeks recovery in an amount adequate to compensate for LinkedIn's infringement, but in no event less than a reasonable royalty for the use made of the invention by LinkedIn together with interest and costs as fixed by the Court, and UnoWeb will continue to suffer damages in the future unless LinkedIn's infringing activities are enjoined by this Court.

549. Unless a permanent injunction is issued enjoining LinkedIn and its agents, servants, employees, representatives, affiliates, and all others acting or in active concert therewith from infringing the '102 patent, UnoWeb will be greatly and irreparably harmed.

COUNT IX
INFRINGEMENT OF U.S. PATENT NO. 8,402,163

550. UnoWeb references and incorporates by reference the preceding paragraphs of this Complaint as if fully set forth herein.

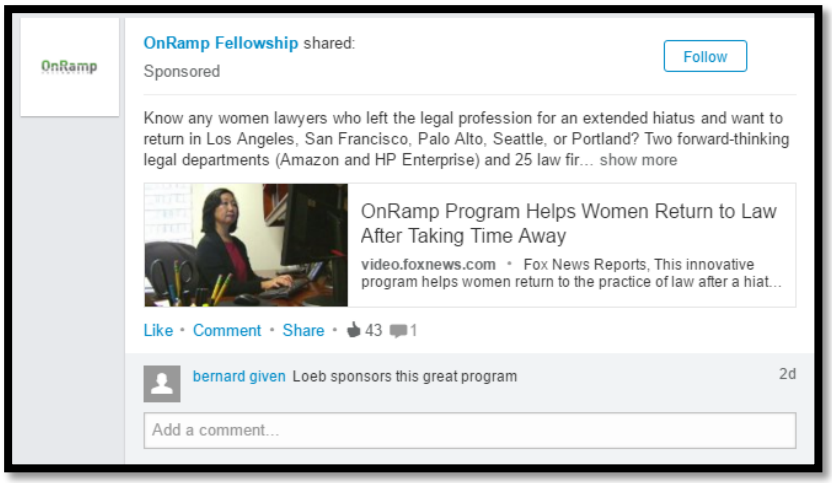
551. LinkedIn makes, uses, sells, and/or offers for sale in the United States products and/or services for targeting advertising and internet content.

552. LinkedIn makes, sells, offers to sell, imports, and/or uses the LinkedIn website and mobile website (e.g., http://www.linkedin.com, http://m.linkedin.com) and LinkedIn mobile applications (e.g., LinkedIn for iOS native application; LinkedIn for Android native application; LinkedIn for Windows Mobile native application). These products include functionality from LinkedIn Sponsored Postings and Linked Ads (collectively, the "LinkedIn '163 Product").

553. On information and belief, the LinkedIn '163 Product includes internet advertising functionality.

554. On information and belief, the LinkedIn '163 Product enables the hosting of a first content on the server computer, the first content comprising material that can be parsed into a plurality of objects. For example, the LinkedIn website hosts content including sponsored

stories and new items that appear on the LinkedIn users paged. Sponsored stories include material that can be parsed into a plurality of objects that include test, images, key words, etc.



LinkedIn Website Showing Sponsored Stories, LINKEDIN WEBSITE (last visited March 2016).

555. On information and belief, the LinkedIn '163 Product is available to businesses and individuals throughout the United States.

556. On information and belief, the LinkedIn '163 Product is provided to businesses and individuals located in the Eastern District of Texas.

557. On information and belief, the LinkedIn '163 Product enables the display of information on a client computer operated by a user, the method implemented by a server computer. The following image shows the source code for a sponsored story posting shown on a user's profile.

LinkedIn Website Showing Sponsored Stories, LINKEDIN WEBSITE (last visited March 2016).

558. On information and belief, on clicking the second link reference that is displayed on a user's computer the user's computer opens a connection to the content host associated with the link and loads the content as shown in the below image that shows the network traffic logged by a browser after a user selects the second link reference.

LinkedIn Referenced Material – Located On An External Server, LINKEDIN WEBSITE (last visited March 2016), available at: http://video.foxnews.com/v/ (showing the loading of content starting with content as video.foxnews.com).

559. On information and belief, when sponsored stories are parsed on the LinkedIn website a plurality of objects are indexed and created. For example, LinkedIn first creates associated metadata associated with an object.

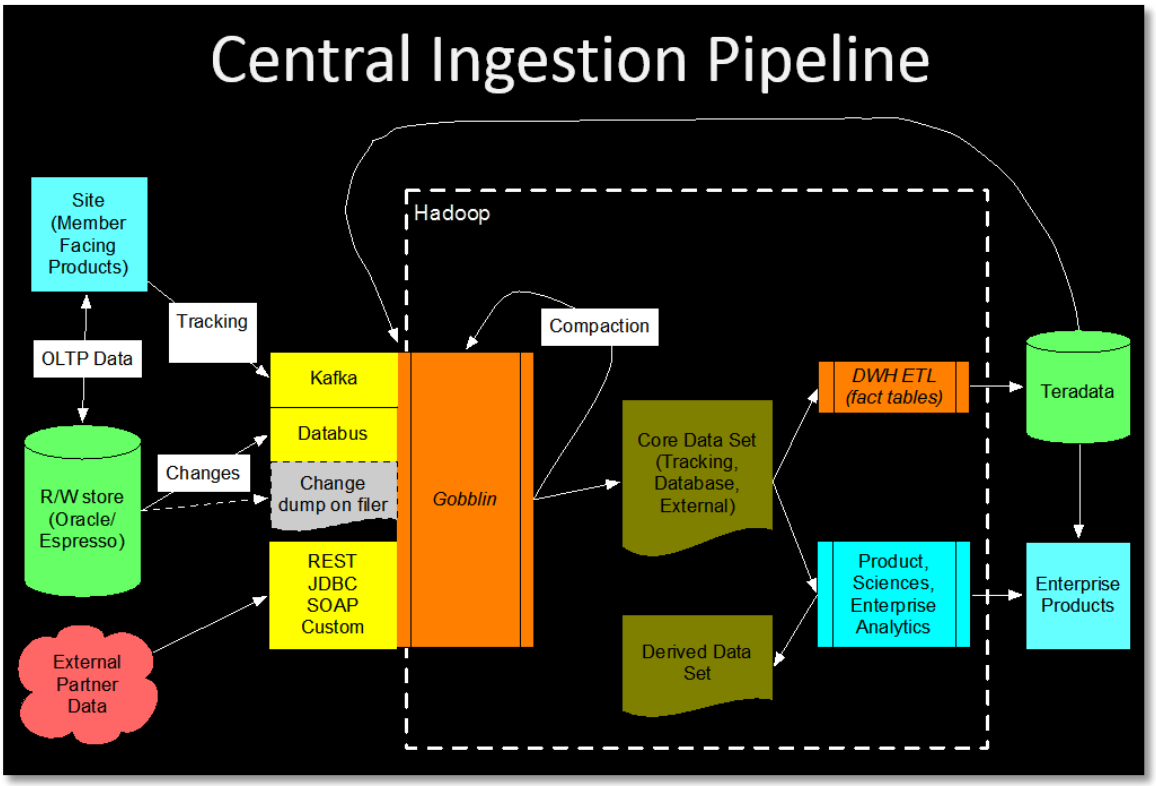
560. On information and belief, the LinkedIn '163 Product enables the server computer to render the first link reference on the client computer using programming code language selected from the group consisting of: JAVASCRIPT; JAVA APPLET; and ACTIVEX.

561. On information and belief, the LinkedIn '163 Product enables a first content on the server computer, the first content comprising material that can be parsed into a plurality of objects.

562. On information and belief, the LinkedIn '163 Product enables parsing of objects including: (1) a word, the word comprising: a word within a link, a word within a title, a bolded word, an underlined word, and an italicized word; (2) a name of an image; (3) an invisible object

used by a web browser, but not displayable to a user of the web browser; (4) coding embedded in a web page; and (5) an audio/video player embedded in a web page.

563. On information and belief, the LinkedIn '163 Product enables indexing the plurality of objects, said indexing performed by the server computer. The below slide from a presentation by Lin Qiao (at the time was Technical Lead at LinkedIn managing LinkedIn's unified data ingestion framework) shows that LinkedIn incorporates and indexes data.

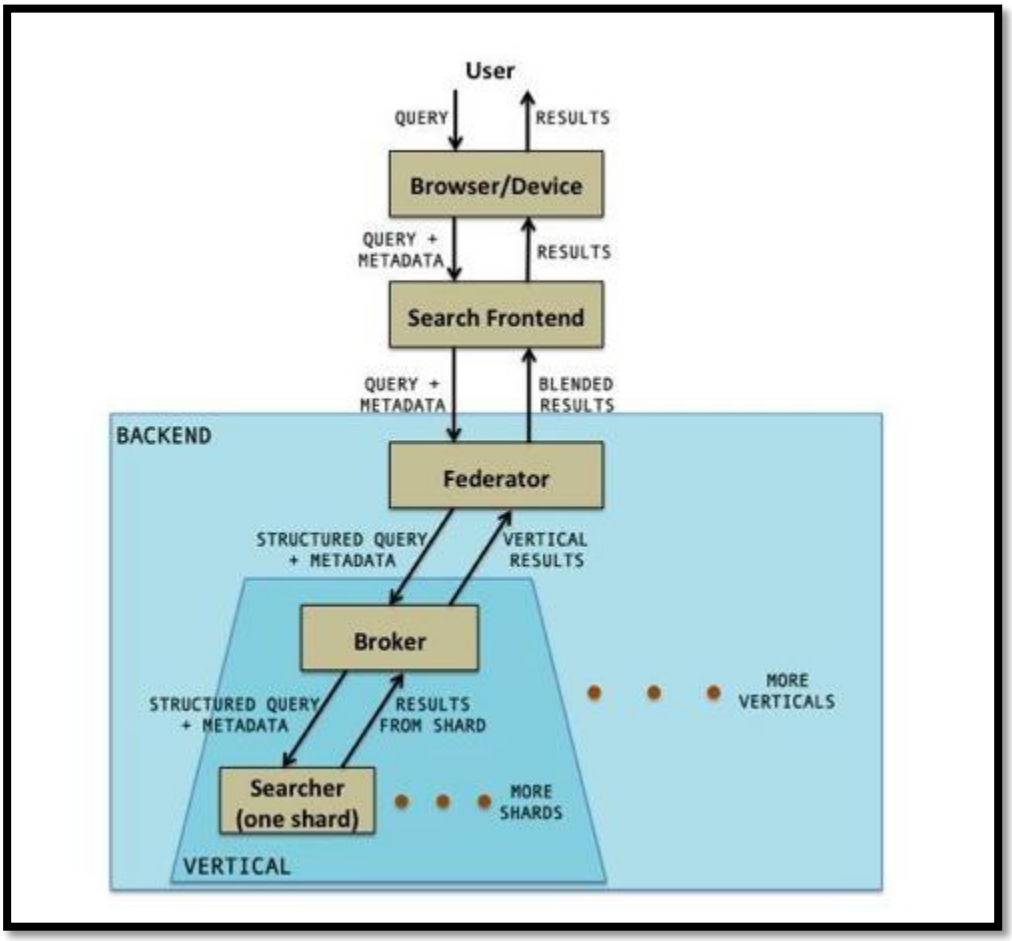


Lin Qiao, *Gobblin' Big Data with Ease*, DATA ANALYTICS INFRA @ LINKEDIN at 9 (2014).

564. On information and belief, the LinkedIn '163 Product enables identification of a second content related to the first content, said identifying performed by the server computer using an object in the plurality of objects. LinkedIn uses indexing technology including a program called "Galene." In the past, LinkedIn has used search technologies including so called "Lucene."[176] LinkedIn's Galene system has been described by LinkedIn engineers as "having a more sophisticated relevance algorithm that includes offline static rank computation,

[176] Sid Anand, *Data Infrastructure @ LinkedIn*, QCON LONDON 2012 at 10-11 (2012).

personalization through factors such as connection degree, and approximate name matching. Previously, it was not possible to incorporate such relevance functionality."[177] The below infrastructure diagram shows at a high level how Galene indexes content in the LinkedIn system.



Jonathan Vanian, *LinkedIn Upgrades Its Search Engine and Ditches an Array of Open Source Extensions*, GIGAOM.COM WEBSITE (June 5, 2014).

565. On information and belief, the LinkedIn '163 Product forms a database table containing objects in the plurality of objects, wherein forming is performed by the server computer. For example, the LinkedIn website/web app virtual web server computer forms a database table (e.g., FQL, SQL-style, and/or NoSQL database table) containing objects in the plurality of objects.

[177] Sriram Sankar and Asif Makhani, *Did You Mean "Galene,"* LINKEDIN ENGINEERING WEBSITE (June 5, 2014), *available at*: https://engineering.linkedin.com/search/did-you-mean-galene.

566. On information and belief, the LinkedIn '163 Product enables functionality including enabling a client computer to access the server computer.

567. On information and belief, the LinkedIn '163 Product enables creating a first link reference to the second content where the first content and the first link reference for display on the client computer wherein said formatting displays the first link reference in a link display area that is separated from the first content that will display in a content display area; style that is indicative that other additional related content is available to the user; and configuration selected from the group consisting of a tab; a link; a bar; a floating bar; a browser bar; a user downloaded bar; and a menu.

LinkedIn Website Showing Sponsored Stories, LINKEDIN WEBSITE (last visited March 2016).

568. On information and belief, the LinkedIn '163 Product enables transmitting content that was formatted and the first link reference to the client computer in response to user interaction with the first link reference sending the second content to replace the first content on the client computer; the second content comprising a second link reference.

569. On information and belief, the LinkedIn '163 Product enables responding to user interaction with a first reference by redirecting a user to hosting location of the second content when the user clicks on the second link reference.

570. On information and belief, LinkedIn has directly infringed and continues to directly infringe the '163 patent by, among other things, making, using, offering for sale, and/or selling products and/or services for targeting advertising and internet content, including but not limited to, the LinkedIn '163 Product.

571. By making, using, testing, offering for sale, and/or selling products and services for targeting advertising and internet content, including but not limited to the LinkedIn '163 Product, LinkedIn has injured UnoWeb and is liable to UnoWeb for directly infringing one or more claims of the '163 patent, including at least claim 1, pursuant to 35 U.S.C. § 271(a).

572. On information and belief, LinkedIn also indirectly infringes the '163 patent by actively inducing infringement under 35 U.S.C. § 271(b), at least as of the date of service of this Complaint.

573. On information and belief, LinkedIn has had knowledge of the '163 patent since at least service of this Complaint or shortly thereafter, and on information and belief, LinkedIn knew of the '163 patent and knew of its infringement, including by way of this lawsuit.

574. On information and belief, LinkedIn intended to induce patent infringement by third-party customers and users of the LinkedIn '163 Product and had knowledge that the inducing acts would cause infringement or was willfully blind to the possibility that its inducing acts would cause infringement. LinkedIn specifically intended and was aware that the normal and customary use of the accused products would infringe the '163 patent. LinkedIn performed the acts that constitute induced infringement, and would induce actual infringement, with the knowledge of the '163 patent and with the knowledge, that the induced acts would constitute infringement. For example, LinkedIn provides the LinkedIn '163 Product that has the capability of operating in a manner that infringe one or more of the claims of the '163 patent, including at least claim 1, and LinkedIn further provides documentation and training materials that cause customers and end users of the LinkedIn '163 Product to utilize the products in a manner that directly infringe one or more claims of the '163 patent. By providing instruction and training to customers and end-users on how to use the LinkedIn '163 Product in a manner that directly

infringes one or more claims of the '163 patent, including at least claim 1, LinkedIn specifically intended to induce infringement of the '163 patent. On information and belief, LinkedIn engaged in such inducement to promote the sales of the LinkedIn '163 Product, *e.g.*, through advertising guides manuals, product support, marketing materials, and training materials to actively induce the users of the accused products to infringe the '163 patent.[178] Accordingly, LinkedIn has induced and continues to induce users of the accused product to use the accused product in its ordinary and customary way to infringe the '163 patent, knowing that such use constitutes infringement of the '163 patent.

575. To the extent applicable, the requirements of 35 U.S.C. § 287(a) have been met with respect to the '163 patent.

576. As a result of LinkedIn's infringement of the '163 patent, UnoWeb has suffered monetary damages, and seeks recovery in an amount adequate to compensate for LinkedIn's infringement, but in no event less than a reasonable royalty for the use made of the invention by LinkedIn together with interest and costs as fixed by the Court, and UnoWeb will continue to suffer damages in the future unless LinkedIn's infringing activities are enjoined by this Court.

577. Unless a permanent injunction is issued enjoining LinkedIn and its agents, servants, employees, representatives, affiliates, and all others acting or in active concert therewith from infringing the '163 patent, UnoWeb will be greatly and irreparably harmed.

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[178] *Share on LinkedIn*, LINKEDIN FOR DEVELOPERS WEBSITE (last visited March 22, 2016), *available at:* https://developer.linkedin.com/docs/share-on-linkedin; *The Open Graph Protocol*, OPEN GRAPH WEBSITE (last visited March 22, 2016), *available at:* http://ogp.me/; Sriram Sankar and Asif Makhani, *Did You Mean "Galene,"* LINKEDIN ENGINEERING WEBSITE (June 5, 2014), *available at*: https://engineering.linkedin.com/search/did-you-mean-galene; *LinkedIn Basics*, LINKEDIN HELP CENTER (last visited March 22, 2016), *available at:* https://www.linkedin.com/help/linkedin/topics/6001/6002; *LinkedIn Display Advertising*, LINKIN BUSINESS SOLUTIONS WEBPAGE (last visited March 22, 2016), *available at:* https://business.linkedin.com/me/marketing-solutions/display-advertising; *LinkedIn Gobblin - Universal Data Ingestion Framework for Hadoop*, GITHUB WEBSITE (last visited March 22, 2016), *available at*: https://github.com/linkedin/gobblin; Praveen Neppalli Naga, *Real-time Analytics at Massive Scale with Pinot*, LINKEDIN ENGINEERING WEBSITE (September 29, 2014), available at: https://engineering.linkedin.com/analytics/real-time-analytics-massive-scale-pinot.

COUNT X
INFRINGEMENT OF U.S. PATENT NO. 7,971,198

578. UnoWeb references and incorporates by reference the preceding paragraphs of this Complaint as if fully set forth herein.

579. LinkedIn makes, uses, sells, and/or offers for sale in the United States products and/or services for global resource sharing.

580. LinkedIn makes, sells, offers to sell, imports, and/or uses the LinkedIn website and mobile website (e.g., http://www.LinkedIn.com, http://m.LinkedIn.com) and LinkedIn mobile applications (e.g., LinkedIn for iOS native application; LinkedIn for Android native application; LinkedIn for Windows Mobile native application). These products include functionality from Sign In For LinkedIn (collectively, the "LinkedIn '198 Product").

581. On information and belief, the LinkedIn '198 Product is available to businesses and individuals throughout the United States.

582. On information and belief, the LinkedIn '198 Product is provided to businesses and individuals located in the Eastern District of Texas.

583. On information and belief, the LinkedIn '198 Product enables sharing of software logic code blocks with an application that may be incorporated into a solution, the method performing, at a server, the steps of: registering a plurality of users with the server.

584. On information and belief, the LinkedIn '198 Product provides each registered user with a profile ID ("ID") stored on a computer readable medium.

client_id	The "API Key" value generated when you registered your application.	Yes
redirect_uri	The URI your users will be sent back to after authorization. This value must match one of the defined OAuth 2.0 Redirect URLs in your application configuration. e.g. https://www.example.com/auth/linkedin	Yes
state	A unique string value of your choice that is hard to guess. Used to prevent CSRF. e.g. state=DCEeFWf45A53sdfKef424	Yes

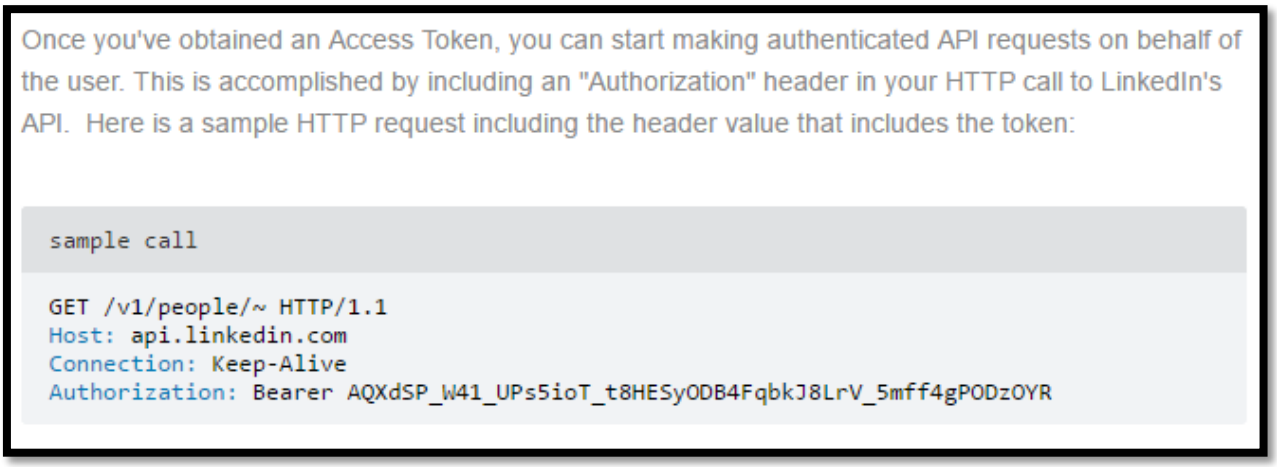
Authentication with Oath, LINKEDIN DEVELOPER DOCUMENTATION (last visited March 2016), available at: https://developer.linkedin.com/docs/oauth2.

585. On information and belief, the LinkedIn '198 Product enables a resource sharing container comprising a plurality of relational database tables including a user resources table, an application resources table, and a solution resources table.

586. On information and belief, the user resources table incorporated in the LinkedIn '198 Product associates each of the user IDs with at least one of a plurality of solution IDs and associates each of the solution IDs with one or more of a plurality of application IDs.

587. On information and belief, the LinkedIn '198 Product associates each of the application IDs and the solution IDs with a plurality of logic links and logic nodes, wherein each of the logic links identifies a page resource stored in the solution resource table and each of the logic nodes identifies a code block.

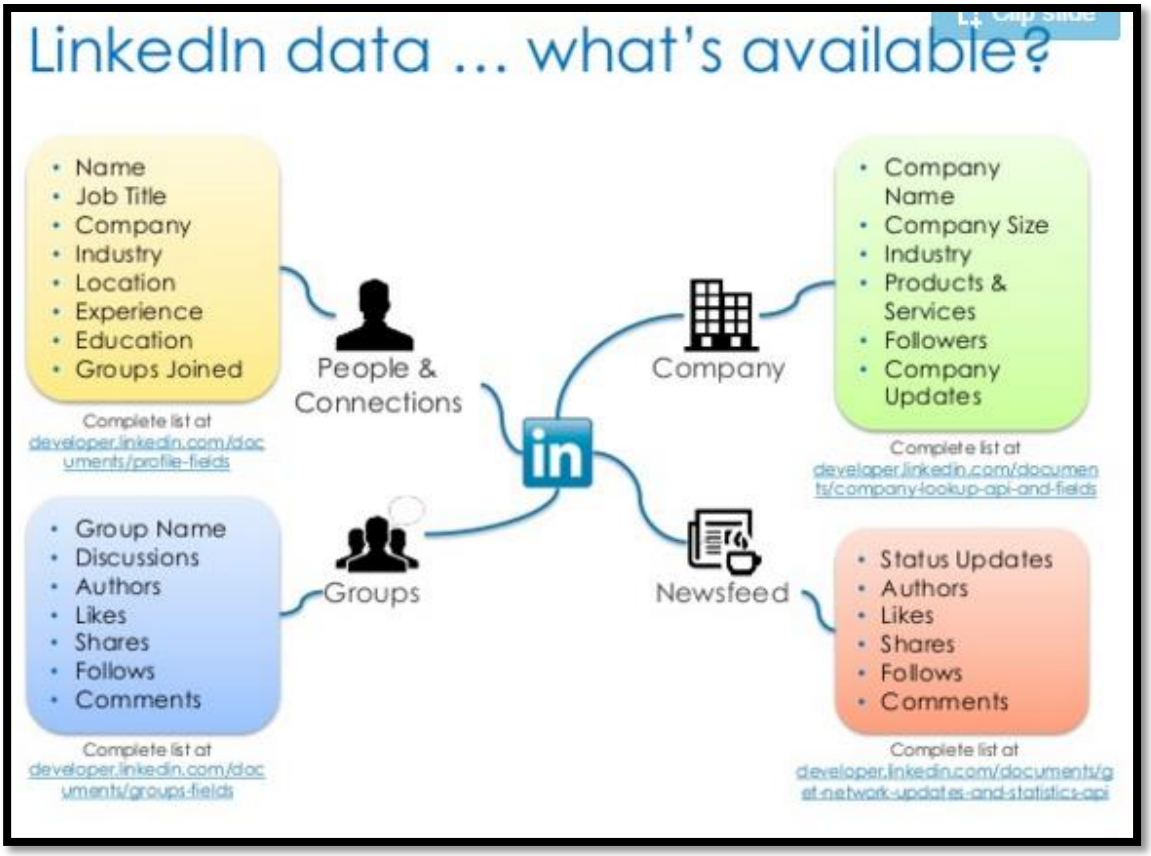
588. On information and belief, the LinkedIn '198 Product provides valid LinkedIn credentials, and clicking on the "Allow Access" button enables an application to access member data that is stored globally.



LinkedIn Make Authentication Requests, LINKEDIN DEVELOPER DOCUMENTATION (last visited March 2016), available at: https://developer.linkedin.com/docs/oauth2

589. On information and belief, the LinkedIn '198 Product receives a login request from a first user of the plurality of registered users over a network.

590. On information and belief, the LinkedIn '198 Product locates a first user ID of the first user in the user resources table and retrieving the one or more solution IDs corresponding to the first user ID.



LinkedIn API Possibilities, LINKEDIN PRESENTATION at 3 (2013), available at: http://www.slideshare.net/linkedineurope/linkedin-api-possibilities-17682784.

591. On information and belief, the LinkedIn '198 Product retrieves the one or more application IDs associated with the one or more retrieved solution IDs and virtually replicates an application resource for each of the one or more retrieved application IDs.

Sign In With LinkedIn, DEVELOPER DOCUMENTATION (last visited March 2016), available: https://developer.linkedin.com/docs/signin-with-linkedin.

592. On information and belief, the LinkedIn '198 Product executes the integrated page resources and code blocks of the virtually replicated application resource at the server according to input received from the first user to render one or more web pages at the computer operated by the first user.

593. On information and belief, the LinkedIn '198 Product is described in LinkedIn's documentation as enabling access to global information stored about each user including fields such as "id," "first-name," "last-name," "location," "headline," "email-address," "industry," "specialties," "location (name)," "location (country code)," etc.

Field Name	Description
id	A unique identifying value for the member. This value is linked to your specific application. Any attempts to use it with a different application will result in a "404 - Invalid member id" error.
first-name	The member's first name.
last-name	The member's last name.
maiden-name	The member's maiden name.
formatted-name	The member's name, formatted based on language.
phonetic-first-name	The member's first name, spelled phonetically.
phonetic-last-name	The member's last name, spelled phonetically.
formatted-phonetic-name	The member's name, spelled phonetically and formatted based on language.
headline	The member's headline.
location	An object representing the user's physical location. See Location Fields for a description of the fields available within this object.
industry	The industry the member belongs to. See Industry Codes for a list of possible values.

Basic Profile Fields, LINKEDIN DEVELOPER DOCUMENTATION (last visited March 2016), available at: https://developer.linkedin.com/docs/fields/basic-profile

594. On information and belief, LinkedIn has directly infringed and continues to directly infringe the '198 patent by, among other things, making, using, offering for sale, and/or selling products and/or services for web content management, including but not limited to, the LinkedIn '198 Product, which includes infringing web content management technologies.

595. By making, using, testing, offering for sale, and/or selling products and services for global resource sharing, including but not limited to the LinkedIn '198 Product, LinkedIn has injured UnoWeb and is liable to UnoWeb for directly infringing one or more claims of the '198 patent, including at least claim 3, pursuant to 35 U.S.C. § 271(a).

596. On information and belief, LinkedIn also indirectly infringes the '198 patent by actively inducing infringement under 35 U.S.C. § 271(b), at least as of the date of service of this Complaint.

597. On information and belief, LinkedIn has had knowledge of the '198 patent since at least service of this Complaint or shortly thereafter, and on information and belief, LinkedIn knew of the '198 patent and knew of its infringement, including by way of this lawsuit.

598. On information and belief, LinkedIn intended to induce patent infringement by third-party customers and users of the LinkedIn '198 Product and had knowledge that the inducing acts would cause infringement or was willfully blind to the possibility that its inducing acts would cause infringement. LinkedIn specifically intended and was aware that the normal and customary use of the accused products would infringe the '198 patent. LinkedIn performed the acts that constitute induced infringement, and would induce actual infringement, with the knowledge of the '198 patent and with the knowledge, that the induced acts would constitute infringement. For example, LinkedIn provides the LinkedIn '198 Product that has the capability of operating in a manner that infringe one or more of the claims of the '198 patent, including at least claim 3, and LinkedIn further provides documentation and training materials that cause customers and end users of the LinkedIn '198 Product to utilize the products in a manner that directly infringe one or more claims of the '198 patent. By providing instruction and training to customers and end-users on how to use the LinkedIn '198 Product in a manner that directly infringes one or more claims of the '198 patent, including at least claim 3, LinkedIn specifically intended to induce infringement of the '198 patent. On information and belief, LinkedIn engaged in such inducement to promote the sales of the LinkedIn '198 Product, *e.g.*, through advertising guides manuals, product support, marketing materials, and training materials to actively induce the users of the accused products to infringe the '198 patent.[179] Accordingly, LinkedIn has induced and continues to induce users of the accused product to use the accused

[179] *Sign In With LinkedIn*, DEVELOPER DOCUMENTATION (last visited March 2016), available: https://developer.linkedin.com/docs/signin-with-linkedin; *Basic Profile Fields*, LINKEDIN DEVELOPER DOCUMENTATION (last visited March 2016), available at: https://developer.linkedin.com/docs/fields/basic-profile; *Authentication with Oath*, LINKEDIN DEVELOPER DOCUMENTATION (last visited March 2016), available at: https://developer.linkedin.com/docs/oauth2.

product in its ordinary and customary way to infringe the ‘198 patent, knowing that such use constitutes infringement of the ‘198 patent.

599. To the extent applicable, the requirements of 35 U.S.C. § 287(a) have been met with respect to the ‘198 patent.

600. As a result of LinkedIn’s infringement of the '198 patent, UnoWeb has suffered monetary damages, and seeks recovery in an amount adequate to compensate for LinkedIn’s infringement, but in no event less than a reasonable royalty for the use made of the invention by LinkedIn together with interest and costs as fixed by the Court, and UnoWeb will continue to suffer damages in the future unless LinkedIn’s infringing activities are enjoined by this Court.

601. Unless a permanent injunction is issued enjoining LinkedIn and its agents, servants, employees, representatives, affiliates, and all others acting or in active concert therewith from infringing the ‘198 patent, UnoWeb will be greatly and irreparably harmed.

PRAYER FOR RELIEF

WHEREFORE, Plaintiff UnoWeb respectfully requests that this Court enter the following prayer for relief:

A. A judgment in favor of Plaintiff UnoWeb that LinkedIn has infringed, either literally and/or under the doctrine of equivalents, the ‘345, ‘386, ‘047, ‘083, ‘091, ‘139, ‘858, ‘102, ‘163, and the ‘198 patents;

B. An award of damages resulting from LinkedIn’s acts of infringement in accordance with 35 U.S.C. § 284;

C. A permanent injunction enjoining LinkedIn and its officers, directors, agents, servants, affiliates, employees, divisions, branches, subsidiaries, parents, and all others acting in active concert or participation with LinkedIn, from infringing the ‘345, ‘386, ‘047, ‘083, ‘091, ‘139, ‘858, ‘102, ‘163, and the ‘198 patents;

D. A judgment and order requiring LinkedIn to provide accountings and to

pay supplemental damages to UnoWeb including, without limitation, prejudgment and post-judgment interest; and

E. Any and all other relief to which UnoWeb may show itself to be entitled.

JURY TRIAL DEMANDED

Pursuant to Rule 38 of the Federal Rules of Civil Procedure, UnoWeb requests a trial by jury of any issues so triable by right.

Dated: April 8, 2016

Respectfully submitted,

/s/ Elizabeth L. DeRieux

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