UNTIED STATES DISTRICT COURT
EASTERN DISTRICT OF TEXAS
MARSHALL DIVISION

PA ADVISORS, LLC, Plaintiff, GOOGLE INC., ET AL., Defendants.	CASE NO. 2-07-CV-480-DF Honorable David Folsom, Presiding

DEFENDANTS' RESPONSIVE CLAIM CONSTRUCTION BRIEF

TABLE OF CONTENTS

Page

TABLE OF AUTHORITIES

Page

Cases

Defendants Google Inc. ("Google") and Yahoo! Inc. ("Yahoo") respectfully submit this claim construction brief in response to the opening brief of Plaintiff PA Advisors LLC.[1]

Preliminary Statement

The purported novelty of the invention claimed in the asserted '067 patent relates to technology for searching the Internet. Rather than searching for words and matching them to words in documents available on the Internet, as was indisputably well-known in the prior art at the time of invention, the '067 patent describes searching for linguistic patterns, made up of identified parts of speech – nouns, verbs, adjectives – that reflect the backgrounds and psychological profile of the user. Three different profiles based on these linguistic patterns are used to provide the claimed fundamental feature of the invention: search results that match "the user's cultural, educational, social backgrounds and psychological profile." The inventor of the '067 patent neither invented Internet searching, nor the use of personalized user profiles for the purpose of improving the specific relevancy of Internet searches. Instead, the '067 patent, at best, relates to a very specific improvement over the prior art involving the use of these linguistic patterns.[2]

Claim construction in this case is relatively straightforward because the specification of the patent provides explicit guidance for the disputed terms. As shown below, Plaintiff seeks to expand the meaning of the terms by ignoring the clear definitions laid out in the specification and

[1] Plaintiff PA Advisors LLC has advised Defendants that it has changed its name to nXn Tech LLC, though the case caption has not been amended. To avoid confusion, Defendants will refer to Plaintiff as "Plaintiff."

[2] Plaintiff's Introduction contains unsubstantiated allegations concerning the patent's inventor, Ilya Geller. As Google explained in its recent Motion to Quash and for Protective Order, Plaintiff has withheld evidence concerning Mr. Geller in discovery and has prevented defendants from taking Mr. Geller's deposition. (*See* Dkt. No. 250.) In any event, this information is irrelevant to the claim construction issues before the Court.

proposing overbroad constructions that are at odds with the prior art and the defined scope of the purported invention. Plaintiff wrongly attempts to treat these definitions merely as examples or, worse, departs from the language of the patent entirely. In doing so, Plaintiff renders the claim terms meaninglessly broad and violates a cardinal rule of claim construction: the patentee's definitions serve as "practically incontrovertible directions about claim meaning." *Abbott Labs v. Sandoz, Inc.*, 566 F.3d 1282, 1288 (Fed. Cir. 2009).

Plaintiff has also changed its proposed constructions for the terms at issue. Defendants were not aware of Plaintiff's final proposed constructions until receiving Plaintiff's opening claim construction brief, which contained material deviations from its proposed constructions filed in the Joint Claim Construction Statement. Fortunately, many of the changes contained in Plaintiff's latest set of proposed constructions makes them substantially in agreement with constructions proposed by Defendants. Accordingly, Defendants are now able to significantly reduce the number of disputed terms that require construction to the following 10 terms: "linguistic pattern," "segment," "user profile," "user linguistic data," "text item," "data item profile," "search request profile," "search request data," "psychological profile," and "data item."

Background

I. SEARCH ENGINES AND USER PROFILES WERE WELL-KNOWN IN 1999.

By 1999, when the provisional application for the '067 patent was filed, the Internet was not a new phenomenon. Both search engines and the use of user profiles to improve search results were well-known. The specification states that "[b]ecause of the vastness of the Internet and the WWW, locating specific information desired by the user can be very difficult. To facilitate search for information a number of 'search engines' have been developed and implemented." (Ex. A at 2:15-18.) It defines search engine as "a software application that searches the Internet for web sites containing information on the subject in which the user is

interested." (*Id.* at 2:18-21; *see also id.* at 1:30-33) ("During the past few years, the quantity and diversity of information and services available over the public (e.g. Internet) and private (e.g. Intranet) local and wide area networks has grown substantially."). Thus, the '067 patent concedes that there were many search engines in the prior art and searches using existing search engines were "accomplished in a variety of ways – all well-known in the art." (*Id.* at 2:21-22.)

The concept of using a user profile to better improve search results was also well-known by 1999. There are numerous prior art references – none of which were brought to the attention of the patent examiners – which reference using "user profiles" to better search for and obtain information. For example:

- Bloedorn, et al., "Machine Learning of User Profiles: Representational Issues," Proceedings of Am. Assoc. for Artificial Intell. (August 1996) describes the creation of a user profile "extracted from text using language processing techniques . . . ." *See also id.* ("As more information becomes available electronically, tools for finding information of interest to users becomes increasingly important. The goal of the research described here is to build a system for generating comprehensible user profiles that accurately capture user interest with minimum user interaction.") (Ex. B) (emphasis added); and
- Chen, et al., "Webmate: A Personal Agent for Browsing and Searching," Carnegie Mellon University (September 1997) proposes a continually updated user profile to return personalized information from web searches. (Ex. C) (emphasis added).

Accordingly, neither word searches, nor user profiles were novel or unique to the '067 patent.

II. THE '067 PATENT DESCRIBES A METHOD FOR INTERNET SEARCHING USING USER PROFILES BASED ON LINGUISTIC PATTERNS.

A. The Specification Distinguishes The Claimed Invention's Use of Linguistic Patterns From "Key Word" Search Engines That Were Known In The Art.

As explained in the specification, many existing search engines used "key word searches," which relied upon comparing "key words" in the user's search string with words in documents on the Internet. (Ex. A at 2:29-45.) The specification describes: "Typically, a user first inputs a 'search string' to the hypertext browser containing key words representative of the information desired by the user. The search engine then applies the search string to a previously

constructed index of a multitude of web sites to locate a certain number of web sites having content that matches the user's search string." (*Id.* at 2:23-28.) It further states that a disadvantage of "typical key word searches" is that such searches "depend entirely on the search string entered by the user, without any regard to the user's cultural, educational, social backgrounds, or the user's psychological profiles." (*Id.* at 2:65-3:2) (emphasis added).

Instead of indexing and matching "words" or "content" – i.e., the subject matter of web sites and search queries as was admittedly "well-known" in the prior art – the '067 patent proposes extracting and matching recurring specific types of linguistic patterns made up of grammatical parts of speech. The premise of the invention is that "research has shown" that people with similar educational or psychological backgrounds have "similar linguistic patterns." (*Id.* at 3:51-55.) Thus, the specification focuses not on matching words in a search query, but on "linguistic patterns, or combinations of various parts of speech (nouns, verbs, adjectives, etc.) in sentences that reflect the user's cultural, educational, social backgrounds and the user's psychological profile." (*Id.* at 3:47-51).

The invention contemplates extracting linguistic patterns from three sources to create three profiles: a "user profile," a "data item profile," and a "search request profile." (*Id.* at claim 1(a), (b), (d).) The profiling process specifically requires identification of parts of speech because it is those combinations of parts of speech, rather than particular words, that are the patterns to be extracted. (*Id.* at 5:4-11.) Profiles do not contain actual personal information about the user because the patterns being extracted are not the words or content, but repeating grammatical parts of speech. As the specification describes, "the system of the present invention matches the user's linguistic patterns to the linguistic patterns of data requested by the user without extracting any actual information about the user's background and psychological

characteristics from the user profile. Thus, the user's privacy is not impinged by the creation and retention of the user profile." (*Id.* at 4:23-29).[3]

B. The Provisional Application To Which The '067 Patent Claims Priority Is Also Directed To Parts of Speech, Rather Than Words.

The application that led to the '067 patent was filed in October 1999 and claims priority to a provisional application filed on January 20, 1999. (*See* Ex. D.) The provisional application is entitled "Internet Search Vehicle." (*Id.*) The provisional asserts that the invention relates to searching by matching grammatical patterns, rather than words or content to allow for searches that are particularized to personal profiles of specific users. (*Id.*) The provisional states "[t]he frequency of occurrences of the different combinations of nouns-verbs-adjectives in any complete sentences in the reasonably big number of each person's texts will be unique for each individual. Consequently, the stock of unique combinations of nouns-verbs-adjectives will reflect the intellectual, cultural and psychological peculiarities of each person." (*Id.*) The provisional states that "when used correctly," this pattern matching "will allow each search to be tailored for that person." (*Id.*)

C. The Claims Of the Patent Describe In Detail Creating Profiles From Linguistic Patterns And Comparing Them.

Plaintiff asserts two independent claims, claims 1 and 45. They are both exceedingly long and detailed. Claim 1 is over 500 words. It is a method claim (from which asserted claims 3, 4, 6, 43 and 61 depend). In essence, the steps of the claim require the creation of three profiles: (1) a user profile that is derived from linguistic patterns in linguistic data from the user, (2) a search request profile that is derived from data items on the Internet, and (3) a search

[3] The patent examiner approved the application for the '067 patent that was filed in October 1999 for issuance without an office action. (Ex. E.)

request profile that is derived from the user's search request. (Ex. A at claim 1(a), (b), (d).) Each of the three profiles represent a linguistic pattern. (*Id.*) The claim describes comparing the search request profile to the user profile and the data item profile. (*Id.* at (e), (f).) The user is then presented with a data item that substantially corresponds to the linguistic patterns of the profiles and thereby reflects "the user's social, cultural, educational, economic background and psychological profile." (*Id.* at (i).) Claim 1 states:

1. A data processing method for enabling a user utilizing a local computer system having a local data storage system to locate desired data from a plurality of data items stored in a remote data storage system in a remote computer system, the remote computer system being linked to the local computer system by a telecommunication link, the method comprising the steps of:

> (a) extracting, by one of the local computer system and the remote computer system, a user profile from user linguistic data previously provided by the user, said user data profile being representative of a first linguistic pattern of the said user linguistic data;
>
> (b) constructing, by the remote computer system, a plurality of data item profiles, each plural data item profile corresponding to a different one of each plural data item stored in the remote data storage system, each of said plural data item profiles being representative of a second linguistic pattern of a corresponding plural data item, each said plural second linguistic pattern being substantially unique to each corresponding plural data item;
>
> (c) providing, by the user to the local computer system, search request data representative of the user's expressed desire to locate data substantially pertaining to said search request data;
>
> (d) extracting, by one of the local computer system and the remote computer system, a search request profile from said search request data, said search request profile being representative of a third linguistic pattern of said search request data;
>
> (e) determining, by one of the local computer system and the remote computer system, a first similarity factor representative of a first correlation between said search request profile and said user profile by comparing said search request profile to said user profile;
>
> (f) determining, by one of the local computer system and the remote computer system, a plurality of second similarity factors, each said plural second similarity factor being representative of a second correlation between said search request profile and a different one of said plural data item profiles, by comparing said search request profile to each of said plural data item profiles;
>
> (g) calculating, by one of the local computer system and the remote computer system, a final match factor for each of said plural data item profiles, by adding said first similarity

factor to at least one of said plural second similarity factors in accordance with at least one intersection between said first correlation and said second correlation;

(h) selecting, by one of the local computer system and the remote computer system, one of said plural data items corresponding to a plural data item profile having a highest final match factor; and

(i) retrieving, by one of the local computer system and the remote computer system from the remote data storage system, said selected data item for display to the user, such that the user is presented with a data item having linguistic characteristics that substantially correspond to linguistic characteristics of the linguistic data generated by the user, whereby the linguistic characteristics of the data item correspond to the user's social, cultural, educational, economic background as well as to the user's psychological profile.

Claim 45, the other asserted independent claim (from which asserted claims 47 and 56 depend), is similar to claim 1 as it describes a user data profile generated from the user's linguistic pattern that substantially corresponds to the user's social, cultural, educational, economic background and to the user's psychological profile. (*Id.* at claim 45.) It differs from claim 1 in its detailed description of how a user profile is generated by the extraction of segments from the user's linguistic data. (*Id.*)

D. The Accused Technology

Despite the specific nature of the invention described in the asserted claims regarding linguistic patterns to provide search value, Plaintiff has accused a myriad of Defendants' products and services, including advertising and email services. For Defendant Google, Plaintiff has accused, among other products, "Google Search (including Web Search, Advanced Search, iGoogle, and Google Toolbar)," "Google AdWords and/or AdSense," and "Gmail." (Ex. F at 2.) For Defendant Yahoo!, Plaintiff has accused, among other products, "Yahoo! Search (including Web Search, Advanced Web Search, Yahoo! Shopping, Yahoo! Product Search, My Yahoo! Search, Y!Q Beta Search, Yahoo! MyWeb Search, and Yahoo! Toolbar, and Yahoo! Search Marketing." (*Id.* at 3-4.) Defendants' technologies are fundamentally different from the invention described in the '067 patent because none of them use linguistic patterns.

E. Plaintiff Has Changed Its Proposed Constructions, Permitting a Reduction In the Number of Claims Requiring Construction By the Court.

Throughout the claim construction process, Plaintiff has changed its proposed constructions. On March 23, 2009, the parties exchanged preliminary claim constructions. (Ex. H.) On the eve of claim construction, during a meet and confer on June 18 – the date that Plaintiff's claim construction brief was originally due – Plaintiff proposed wholly new constructions for every term at issue. (See Exs. I, J.) Then, in its opening claim construction brief filed on June 29, Plaintiff once again offered new constructions for certain terms that differed from either of Plaintiff's earlier proposals. The chart attached as Exhibit J sets forth Plaintiff's various proposed constructions and reflects that Plaintiff has proposed as many as three different constructions for some claim terms.

Defendants were not aware of Plaintiff's final proposed constructions until receiving Plaintiff's opening claim construction brief. Many of the changes in Plaintiff's latest proposed constructions make them substantively in accord with constructions proposed by Defendants. Accordingly, Defendants can now agree to reduce the number of disputed terms for which construction is sought to the following 10 terms: "linguistic pattern," "segment," "user profile," "user linguistic data," "text item," "data item profile," "search request profile," "search request data," "psychological profile," and "data item."[4]

[4] Based on Plaintiff's last set of proposed constructions, submitted in Plaintiff's opening claim construction brief, Defendants agree that the following terms do not need to be construed by the Court: : "linguistic characteristics," "first similarity factor," "second similarity factor," "textual data," "personal textual data," and "user segment group." Although Defendants do not necessarily agree with the exact wording of Plaintiff's proposed constructions for these terms, Defendants agree in light of Plaintiff's latest proposed constructions that there will not be a dispute concerning the meaning of these terms that will raise a material issue in this case.

Argument

I. "LINGUISTIC PATTERN" (ALL ASSERTED CLAIMS)

Defendants' Construction	*Plaintiff's Construction*
A repeating combination of various parts of speech (nouns, verbs, adjectives, etc.) that reflect the author's cultural, educational, social backgrounds and the author's psychological profile that occurs in texts composed by the author.[5]	A combination of various parts of speech (nouns, verbs, adjectives, etc.).[6]

Plaintiff admits that "[t]he term 'Linguistic Pattern' is fully defined in the specification of the '067 Patent." (Br. at 11.) Defendants propose a construction using this undisputed definition such that a linguistic pattern must have repeating combinations of parts of speech that reflect the authors' backgrounds and psychological profiles. Plaintiff, however, has proposed a construction that not only ignores this patentee's definition and the language of the claims, but excludes the fundamental feature of the invention. The entire purpose of the invention is to search the Internet using linguistic patterns reflecting the user's cultural, educational, and social backgrounds and psychological profile, rather than merely words. Only Defendants' proposed construction is consistent with this purpose.

[5] Defendants' proposed construction differs slightly from the proposed construction included in the parties' Joint Claim Construction Statement filed on May 22. (D.N. 232 at 8.) Although the substance is the same, Defendants have restructured the construction in an effort to address Plaintiff's objections. For example, Defendants have changed the word "user" to "author" to address the objection raised by Plaintiff regarding the second linguistic pattern that refers to data items. (Br. at 12.)

[6] This construction was proposed by Plaintiff for the first time in its Opening Claim Construction Brief. (*See* Ex. J for previous two constructions.)

A. Defendants' Construction Of "Linguistic Pattern" Reflects The Patentee's Definition And The Fundamental Feature Of The Invention.

1. The patentee acted as his own lexicographer by specifically defining the term "linguistic pattern."

There is no dispute the specification's reference to linguistic patterns is definitional. It states

> All texts composed by the user, or adopted by the user as favorite or inimical (such as a favorite book or short story), contain certain recurring linguistic patterns, or combinations of various parts of speech (nouns, verbs, adjectives, etc.) in sentences that reflect the user's cultural, educational, social backgrounds and the user's psychological profile.

(*Id.* at 3:45-50.) Again, Plaintiff admits that "[t]he term 'Linguistic Pattern' is fully defined in the specification of the '067 Patent." (Br. at 11.)

The part of the definition requiring the linguistic pattern to reflect the author's cultural, educational, social backgrounds and the author's psychological profile is taken directly from the specification. (*See*, *e.g.*, Ex. A at 3:45-50.) It appears in the "Summary of the Invention" section of the specification, not in the section discussing exemplary embodiments, and it is binding. *See Phillips v. AWH Corp.*, 415 F.3d 1303, 1316 (Fed. Cir. 2005) (en banc) ("A fundamental rule of claim construction is that terms in a patent document are construed with the meaning with which they are presented in the patent document.") (quotation omitted); *Abbott*, 566 F.3d at 1288 (holding that if the patentee acts as his own lexicographer, providing specialized definitions of claim terms in the specification, the patentee's definitions serve as "practically incontrovertible directions about claim meaning"); *Chimie v. PPG Indus.*, 402 F.3d 1371, 1377 (Fed. Cir. 2005) ("The specification acts as a dictionary when it expressly defines terms used in the claims or when it defines terms by implication."); *Boss Control, Inc. v. Bombardier Inc.*, 410 F.3d 1372, 1377-79 (Fed. Cir. 2005) (same). As a fundamental feature and the purpose of the invention, it

must be included in the construction. *See Praxair Inc. v. Atmi, Inc.*, 543 F.3d 1306, 1324 (Fed. Cir. 2008) (construing the term "flow restrictor" to include the requirement that it prevent the hazardous release of gas because that was the "fundamental object" of the invention).

The '067 patent repeatedly states that the purpose of the invention is to enable a search that is based on linguistic patterns and is adapted to the cultural, educational, and social backgrounds of the user, as well as the user's psychological profile. (Ex. A at 3:26-31 ("This invention relates to the use of linguistic patterns . . . [that] corresponds to the user's cultural, educational, professional, social backgrounds as well as to the user's psychological profile"); *id.* at 3:51-55 ("Research has shown that most people have readily identifiable linguistic patterns in their expression and that people with similar cultural, educational and social backgrounds will have similar linguistic patterns"); *id.* at 9:13-17 ("recurring linguistic patterns" that reflect "cultural, educational and social backgrounds")).

The patent explains that such an invention was necessary because "a twelve year old child using key word searches on the Internet for some information on computers may be presented with a multitude of documents that are far above the child's reading and educational level . . . . [or] a physician searching the Internet for information on a particular disease may be presented with dozens of web sites that contain very generic information." (*Id.* at 3:7-16.) The patent purports to solve this problem by searching not for words or content, but by profiles from extracted linguistic patterns that will identify data that corresponds to the user's "professional, cultural, educational, and social backgrounds as well as to the user's psychological profile and thus addresses the user's 'unexpressed' requests." (*Id.* at 3:20-24.) *See Boss Control*, 410 F.3d at 1377 (holding that specification had defined a term by distinguishing the claimed invention from the prior art).

2. The claim language supports Defendants' construction because the linguistic patterns must reflect the author's backgrounds and psychological profile for the claimed invention to make sense.

Claim 1 describes three linguistic patterns, all of which are consistent with Defendants' proposed construction of linguistic pattern. First, the claimed invention describes a user profile which is "representative" of the first linguistic pattern of the user as extracted from linguistic data provided by the user. (Ex. A at claim 1(a).) Next, claim 1 describes a data item profile which is representative of the second linguistic pattern of the author of the data item to be searched. (*Id.* at (b).) The linguistic pattern of the data item profile is thus representative not of the search user's linguistic pattern, but of the linguistic pattern of the data item's author. (*Id.*) Third, a search request profile is extracted from the search request that is representative of the third linguistic pattern of the search author. (*Id.* at (d).)

The claim then describes matching the profiles to determine similarity factors between them. (*Id.* at (e)-(h).) Finally, in the last step of claim 1, after the user profile and data item profile have been matched against the search request profile, a data item is presented to the user that has "linguistic characteristics that substantially correspond to linguistic characteristics of the linguistic data generated by the user, whereby the linguistic characteristics of the data item correspond to the user's social, cultural, education, economic background as well as to the user's psychological profile." (*Id.* at claim 1(i)) (emphasis added).

Indeed, Plaintiff admits that "Claim 1 specifies that the method taught by Claim 1 must use Linguistic Characteristics that 'correspond to the user's social, cultural, educational, economic background as well as to the user's psychological profile." (Br. at 8) (emphasis added). This is a logical requirement based on the claim language. In particular, in order for the search result "data item" presented to the user to "correspond to the user's social, cultural, education, economic background as well as to the user's psychological profile," as claimed, it is

necessary that the linguistic patterns of the user profile, data item profile, and search request profile also reflect the backgrounds and psychological profiles of their authors. In other words, if the linguistic patterns represented by the three profiles did not reflect the authors' backgrounds and psychological profiles – as Plaintiff proposes – then the search result would not do so either. As the entire purpose of the invention is to provide search results that "correspond[] to the user's cultural, educational, and social backgrounds as well as the user's psychological profile," Defendants' construction of linguistic pattern properly includes that it must reflect the author's cultural, educational, social backgrounds and the author's psychological profile that recurs in texts composed by the author. (Ex. A at Abstract.)

3. A pattern is a "*repeating* combination of various parts of speech."

Additionally, to be a "pattern," the combination of various parts of speech must be "repeating" as Defendants' construction provides. This is consistent with 1999 dictionary definitions of "pattern": (a) "a regular or logical form, order or arrangement of parts" and (b) "a regular or repetitive form, order or arrangement." (Exs. K, L; D.N. 232 at 9.)

Contrary to Plaintiff's argument (Br. at 12), "repeating" is not redundant with the use of "recurring" in the specification. The term "recur" in the specification refers to a different concept-the "frequencies of occurrence" of the linguistic pattern. (3:61-62.) For example, the Abstract provides "In accordance with the present invention, particular linguistic patterns and their frequency of recurrence are extracted from personal texts provided by the users of the system of the present invention and stored in a user profile data file such that the user profile data file is representative of the user's overall linguistic patterns and the frequencies of recurrence thereof. All documents in a remote computer system, such as the Internet, are likewise analyzed and their linguistic patterns and pattern frequencies are also extracted and stored in corresponding document profiles." (Ex. A at Abstract) (emphasis added).

Plaintiff also argues that Defendants have not pointed to evidence "that the inventor intended to limit the term Linguistic Pattern to only 'repeating' Linguistic Patterns." (Br. at 12.) This is a straw man argument that mischaracterizes the Defendants' proposed construction. Defendants' construction does not state that the pattern has to "repeat." Instead, it uses the word "repeating" to define what a pattern is – a repeating combination of various parts of speech.

B. Plaintiff's Construction Is Contrary To The Definition In The Specification And The Fundamental Feature Of The Invention.

Plaintiff's construction of the term linguistic pattern as "a combination of various parts of speech (nouns, verbs, adjectives, etc.)" fails to incorporate the requirement that the combination of various parts of speech be repeating or that the linguistic patterns reflect the authors' backgrounds or psychological profiles. In doing so, Plaintiff's proposed construction ignores the definition provided by the patentee and excludes the fundamental feature of the invention that the pattern "reflect the user's cultural, educational, social backgrounds and the user's psychological profile." (*Id.* at 3:45-50.) This is contrary to the law of claim construction. *See Phillips*, 415 F.3d at 1316 ("the inventor's lexicography governs"); *Praxair*, 543 F.3d at 1324 (construing claim term in light of "fundamental object" of the invention).

Plaintiff's construction is also so broad as to be meaningless. Virtually anything – a sentence, a paragraph, a poem, or even randomly picked words – could constitute "a combination of various parts of speech (nouns, verbs, adjectives, etc.)," as Plaintiff defines linguistic pattern. The stated purpose of the invention, however, is to identify linguistic patterns that recur in the user's texts and the data on the Internet separate from the meaning of the words themselves. These patterns must – according to the claim language and the specification – reflect the author's backgrounds and psychological profiles to function within the claimed invention.

Moreover, Plaintiff's construction contradicts how the patent distinguishes itself from the prior art. The specification describes the existing search engines that used the "well-known" method where "[t]he search engine then applies the search string to a previously constructed index of a multitude of web sites to locate a certain number of web sites having content that matches the user's search string." (Ex. A at 2:22-28.) If the linguistic pattern described in the patent is not required to reflect the authors' backgrounds and psychological profiles, then it would function no differently than the existing search engines the patent distinguishes by matching the language of the search to the content of the Internet. Such a construction must be rejected because it does not "align[] with the patent's description of the invention." *Phillips*, 415 F.3d at 1316; *see also Cargill, Inc. v. Sears Petroleum & Trans. Co*., 334 F. Supp. 2d 197, 214 (N.D.N.Y. 2004) ("Ultimately, interpretation of patent claim terms can only be determined with full understanding of what the inventors actually invented and intended to envelop within the claims. For this reason, when inventors distinguish their invention from prior art, that prior art is properly excluded from the claims' coverage."). Only Defendants' construction recognizes that the linguistic patterns of the '067 patent invention must be repeating combinations of parts of speech reflective of the author's backgrounds and psychological profiles as opposed to the content of the words themselves.

II. "SEGMENT" (CLAIMS 45 AND 47)

Defendants' Construction	*Plaintiff's Construction*
One or more predetermined types of parts of speech arranged in a predetermined order.	A part of a sentence.[7]

[7] Plaintiff's original proposed construction for this term was "one or more portions of something." (D.N. 232 at 17.)

Defendants have proposed a construction of "segment" that is identical to the definition provided in the patent's specification. Plaintiff has proposed a construction that is so broad as to mean virtually anything – even a single letter or punctuation mark.

A. Defendants' Construction Of "Segment" Is Identical To The Definition Provided In The Specification.

Defendants' construction is identical to how the patentee defined segment in the specification. The specification states:

> A segment consists of one or more predetermined types of POS arranged in a predetermined order.

(Ex. A at 14:59-61; 19:2-3; 22:38-39.)

Here, the patentee was acting as his own lexicographer by using the phrase "a segment consists of . . . ." (*Id.*) (emphasis added). Courts have repeatedly recognized that "consists of" is a term of patent convention conveying a definition. *See CIAS, Inc. v. Alliance Gaming Corp.*, 504 F.3d 1356, 1361 (Fed. Cir. 2007) ("It is . . . well understood in patent usage that 'consisting of' is closed-ended and conveys limitation and exclusion."). In *Prompt Medical Systems, L.P. v. McKesson Corp.*, this Court held that the use of the words "consists of" in the specification showed that the patentee acted as his own lexicographer "to set forth special definitions of claim terms." No. 6:05-CV-485-LED, 2006 WL 2076784, at *6 (E.D. Tex. July 21, 2006).

Thus, when the patentee stated in the specification that "a segment consists of one or more predetermined types of POS arranged in a predetermined order," he defined what a segment is. (Ex. A at 14:59-61; 19:2-3; 22:38-39.) This definition, which is identical to that proposed by Defendants, is controlling here. *See Abbott*, 566 F.3d at 1288 (patentee's definitions serve as "practically incontrovertible directions about claim meaning"); *Chimie*, 402 F.3d at 1377 (Fed. Cir. 2005) ("The specification acts as a dictionary when it expressly defines terms used in the claims or when it defines terms by implication."); *Boss Control,* 410 F.3d at 1377-79 (same).

In the Summary of the Invention, the term "segment" is used in a manner fully consistent with its definition. The specification states that a segment is extracted by: (1) "identifying words in the sentence as being particular parts of speech (i.e. nouns, verbs, adjectives, etc.)"; and (2) "selecting a predetermined combination of the identified parts of speech and storing this combination as a segment." (*Id.* at 5:4-11). This establishes that a segment is one or more predetermined parts of speech in a predetermined order.

Moreover, the specification provides – in addition to the preceding definition – a preferred embodiment for a particular type of segment. "In a preferred embodiment of the present invention, each segment comprises a triad of three parts of speech: noun-verb-adjective." (*Id.* at 5:12-14.) The Federal Circuit has often noted that "the patentee's choice of preferred embodiments can shed light on the intended scope of the claims." *Boss Control*, 410 F.3d at 1377 (citation omitted). The description of this embodiment shows that while "segment" must be limited to a predetermined combination of parts of speech, it is not necessarily limited to any specific combination (noun-verb-adjective in the preferred embodiment). Notably, this description of the preferred embodiment uses the term "comprises," while the definition of "segment" in the specification uses the phrase "consists of." It is well established that "comprises" is an open-ended term, while "consists of" is closed-ended. *See CIAS*, 504 F.3d at 1360-61 ("'comprise' and 'consist' have different meanings.").

Plaintiff's argument that the definition from the specification is just "another embodiment" is belied by the language of the definition. (Br. at 19.) Indeed, Plaintiff avoids citing the complete definition which appears multiple times in the specification to obscure the patentee's repeated use of the phrase "consists of" when defining a segment. (*Id.*)

B. Plaintiff's Construction Is Contrary To The Language Of The Patent And Overbroad.

Plaintiff's construction of "segment" ignores the clear definition provided in the specification and the patent's description of the claimed invention. It is also overbroad. To define a segment to be "a part of a sentence" would mean that it could be construed as almost anything. For example, a single word, or a single letter, or a single punctuation mark are each "part of a sentence" as Plaintiff's construction provides.

In the context of the claim language in which the term "segment" appears, Plaintiff's proposed construction is revealed as nonsensical. For example, "segment" is used in asserted claims 45. Claim 45 discloses identifying segments and extracting them from texts. If, as Plaintiff alleges, segments are not made up of predetermined parts of speech, but instead are just a part of a sentence – like a single letter, word, or punctuation mark – there is no way the computer system would know what to extract or how to create a user profile from the segment that is representative of the user's "overall linguistic pattern." (Ex. A at claim 45(k).) It is inconceivable that such a user profile could be created by extracting the letter "R," a comma, or a period, even though each are "a part of a sentence."

Accordingly, the Court should adopt Defendants' construction which is consistent with the definition provided by the patentee, the language of the claims, and the specification.

III. "USER PROFILE," "DATA ITEM PROFILE," AND "SEARCH REQUEST PROFILE"

These claim terms are the three profiles that are created and matched based upon the segments and linguistic patterns extracted from the text. Plaintiff ignores the specification's definition for what must be included in these profiles. However, the '067 patent is clear and binding for each of these terms.

A. "User Profile" and "User Data Profile" (All Asserted Claims)[8]

Defendants' Construction	*Plaintiff's Construction*
A file containing information representative of a specific user's linguistic patterns and the frequencies with which these patterns recur in texts that are: (i) submitted by the user or (ii) associated with the user and automatically acquired by the system, without identifying any background or private information about the user.[9]	A collection of information about a user.

Plaintiff admits in its brief that Mr. Geller "conceived of a way to profile a particular user based on linguistic patterns in the texts the user reads or creates, and to use that user profile to tailor the search results to the person seeking the information." (Br. at 2-3.) Defendants' proposed construction includes the type of information that must be included in the user profile. In contrast, Plaintiff has proposed a construction that is so broad as to be meaningless.

---

[8] The meanings of several disputed terms are linked by the actual language of the claims. For example, claim 1 recites that a "user profile" is extracted from "user linguistic data" and the "user data profile" is "representative of a first linguistic pattern of the said user linguistic data." Because the "user profile" and the "linguistic pattern" both include repeating patterns of speech that reflect specific information about the user, then the "user linguistic data," from which these recurring patterns of speech are discerned, must necessarily include the recurring patterns of speech. Defendants' proposed constructions of "linguistic data" and "user linguistic data" reflect this requirement, whereas plaintiff's proposed construction does not.

Similarly, claim 45 recites that "user linguistic data comprises at least one text item, each said at least one text item comprising at least one sentence." Claim 45 also recites that a "segment representative of a linguistic pattern of each sentence" is extracted from the sentence. Accordingly, the actual words of the claim require that the "text item" be long enough to be broken into at least one sentence and that it also include at least one linguistic pattern. Defendants' proposed construction of "text item" reflects these requirements, whereas Plaintiff's does not.

[9] Defendants' proposed construction differs slightly from the proposed construction included in the parties' Joint Claim Construction Statement filed on May 22. (D.N. 232 at 20, 22.) Although the substance is the same, Defendants have changed the words "about a" to "representative of" to address Plaintiff's objection. (Br. at 26.)

1. Defendants' construction is supported by the claim language, the specification, and the prosecution history.

The invention relates to extracting parts of speech from text and using the patterns of parts of speech to create identifying profiles for users to match to profiles of documents on the Internet. As the Summary of the Invention explains: "[t]he user profile is thus representative of the user's overall linguistic patterns and their respective frequencies." (Ex. A at 3:64-65.) The specification further states: "the resulting user profile contains the linguistic patterns from all texts submitted by the user (or automatically gathered by the system) and the frequencies with which those patterns recur within the texts." (*Id.* at 5:17-20) (emphasis added). Defendants' construction of user profile consistently sets forth the information that must be included in it: "the specific user's linguistic patterns and the frequencies with which these patterns recur in texts that are: (i) submitted by the user or (ii) associated with the user and automatically acquired by the system."[10]

Indeed, Plaintiff's admissions show that Defendants' construction properly defines the term according to the specification and the claim language. Plaintiff admits that the specification states that a user profile is "a computer file representative of the user's linguistic patterns." (Br. at 25 citing Ex. A at 9:52-53.) Further, Plaintiff agrees that "Claim 1 states that the user data profile is 'representative of a first linguistic pattern'" and "Claim 45 describes a method for generating a user data profile that includes specific information about linguistic patterns and their frequencies of use that can be stored in the user data profile." (Br. at 25 citing Ex. A at 25:34-35; 33:39-43:20.)

[10] It is undisputed the invention relates to software stored on computers. Thus it is appropriate to use the term "file" in the construction because data in computers is stored in files.

The specification also plainly establishes that the user profile does not include "actual information" about the user, but instead linguistic patterns:

- "[T]he system of the present invention matches the user's linguistic patterns to the linguistic patterns of data requested by the user without extracting any actual information about the user's background and psychological characteristics from the user profile. Thus, the user's privacy is not impinged by the creation and retention of the user profile." (Ex. A at 4:23-29) (emphasis added);

- "The User Profile does not contain any private information about the user nor does it contain any textual excerpts from the user's private texts. Instead, as was previously explained, the control unit 14 extracts linguistic patterns from the texts rather than the actual information conveyed by the texts." (*Id.* at 11:14-19) (emphasis added).

This requirement is reflected in Defendants' construction and is absent from Plaintiff's overly broad proposed construction. *See Praxair*, 543 F.3d at 1324 (to the extent the specification emphasizes a "fundamental object" or "fundamental feature" of the invention, the claims must be read in light of that emphasis).

Plaintiff's argument that Defendants' construction "limits" or "excludes" embodiments by listing the type of information that must be included in a user profile is another straw man. (Br. at 26.) Defendants' listing of types of information that must be stored in the profile does not mean that other types of information could not also be included, as long as actual or private information about a user is not included as the patent requires.

2. Plaintiff's construction is meaningless.

Plaintiff's construction – "a collection of information about a user" – is so vague that it would be useless to the Court or jury. First, Plaintiff provides no support, intrinsic or otherwise, to support its construction of a profile as a "collection of information." Further, Plaintiff's generic construction of a "user profile" does not reflect the purpose of the user profile. Indeed, it contradicts the clear description in the specification that "[t]he user profile is thus representative of the user's overall linguistic patterns and their respective frequencies." (Ex. A at

3:64-65 (emphasis added).) Plaintiff also ignores that the specification requires the profile to include "the linguistic patterns from all texts submitted by the user (or automatically gathered by the system) and the frequencies with which those patterns recur within the texts." (*Id.* at 5:18-21.)

Further, the "user profile" as construed by Plaintiff would include private and personal information about the user, in direct contradiction to the teachings of the specification, which emphasizes that the user profiles of the '067 patent exclude personal information to maintain the privacy of the user. (*Id.* at 4:23-29; 11:14-19.) Plaintiff's construction is thus contrary to established claim construction law – which requires the claims to be read in light of the specification – and should be rejected. *Phillips*, 415 F.3d at 1315 ("[C]laims must be read in view of the specification of which they are a part.").

Plaintiff's construction is also incorrect because it is so general that it would potentially include any and all of the user profiles that appear in the prior art, but were not disclosed by the patentee to the examiner. (*See* Exs. B, C.) The '067 patent by its very terms is directed to a specific type of user profile: one based on linguistic patterns and their frequencies. The provisional application describes the "unique" nature of the user profile envisioned by the '067 patent. (Ex. D.) According to the provisional application, "the stock of unique combinations of nouns-verbs-adjectives will reflect the intellectual, cultural and psychological peculiarities of each person." (*Id.*) This is the basis upon which the user profiles in the patent are created. Defendants' construction, unlike Plaintiff's, reflects this fundamental purpose and should be adopted.

B. "Data Item Profile" (Claims 1, 3, 4, 6, 43, 56, 61)

Defendants' Construction	*Plaintiff's Construction*
A file containing a data item's address, the linguistic patterns of the data item, and the frequencies with which those patterns recur.[11]	A collection of information about a data item.

As with the parties' dispute concerning the construction of user profile, Defendants have proposed a construction that follows the specification, while Plaintiff's proposal is overly broad and completely divorced from the language of the patent.

1. Defendants' construction relies on the exact language of the specification.

The specification states that the "data item profile" is the profile that is created of each document analyzed on the Internet. "All documents in a remote computer system, such as the Internet, are likewise analyzed and their linguistic patterns and frequencies thereof also extracted and stored in corresponding document profiles." (Ex. A at 3:66-4:3.) Defendants' construction tracks exactly the specification's requirements for what must be included in the profile: "the resulting data item profile of each data item contain the data item address, the linguistic patterns of the data item and the frequencies with which those patterns recur therein." (*Id.* at 5:32-35.)

As with "user profile," Plaintiff incorrectly argues that Defendants' construction somehow "limits" the data item profile to specific embodiments. (Br. at 6.) Again, by listing the types of information that must be included, Defendants' construction does not exclude other information that may also be included in a data item profile.

[11] Defendants' proposed construction is simplified from the proposed construction included in the parties' Joint Claim Construction Statement filed on May 22. (D.N. 232 at 4.)

2. Plaintiff's proposal is too broad and conflicts with Plaintiff's admissions regarding the meaning of the term.

Plaintiff's admissions demonstrate Plaintiff's proposed construction is incorrect. Plaintiff admits that: "Claim element 1(b), requires only that this information [in the data item profile] be representative of a second linguistic pattern of the corresponding data item." (Br. at 6) (emphasis changed). Despite this admission, Plaintiff proposes a construction that does not require the data item profile to contain the linguistic pattern of the data item.

Plaintiff provides no basis for its proposal that "data item profile" should be construed to mean simply a "collection of information" other than its unsupported assertion that it constitutes the plain and ordinary meaning. (Br. at 5-6.) Thus, while Defendants' construction properly "aligns" with its specification, Plaintiff ignores the specification to imbue the claims with the greatest possible coverage. *See Phillips*, 415 F.3d at 1315.

Plaintiff's construction of "data item profile" as "a collection of information about a data item" would encompass any information about an item on the Internet. Plaintiff's construction would sweep within it the prior art search engines that indexed the Internet to collect information and were well-established by 1999 and from which the '067 patent explicitly distinguished itself. (Ex. A at 8:59-62) ("The [prior art] search engine then applies the search string to a previously constructed index of a multitude of web sites to locate a certain number of web sites having content that matches the user's search string."). The patent clearly distinguished the claimed invention from this prior art.

C. "Search Request Profile" (Claims 1, 3, 4, 6, 43, 56, 61)[12]

Defendants' Construction	*Plaintiff's Construction*
A file that includes information about the linguistic patterns in search request data.	Collection of information about a search request.

Again, Defendants' proposal is aligned with the specification and Plaintiff's proposal is an attempt to make the claim as broad as possible without reference to its meaning in the intrinsic evidence.

1. Defendants' construction properly requires that the search request profile include information about linguistic patterns.

Defendants' construction tracks the specification's requirements for what must be included in the "search request profile." Like the "user profile" and "data item profile," the search profile must contain linguistic patterns so that these patterns can be matched with the patterns contained in the other profiles. (*Id.* at 4:6-11.) When a user submits a search request, "[t]he system then creates a search profile representative of linguistic patterns in the search string in a similar manner to the user-profiling procedure, except that frequencies of recurring segments are not recorded in the search profile." (*Id.* at 5:44-48) (emphasis added). The specification thus emphasizes – as reflected in Defendants' proposed construction – that the search profile must be representative of linguistic patterns. (*Id.*) Again, Plaintiff admits as much in its opening brief.

[12] The meaning of "search request data" is linked to the meaning of "search request profile" by the actual language of the claims. For example, claim 1 recites that a "search request profile" is extracted from "search request data." Because the "search request profile" includes information about the linguistic patterns of the "search request data," the "search request data" must necessarily include at least on linguistic pattern. This specification also makes this clear when it states "[t]he system then creates a search profile representative of linguistic patterns in the search string . . . ." (Ex. A at 5:44-45). If the "search request data" could be any string of data, as plaintiff suggests, then the claimed invention simply would not work.

For example, Plaintiff states that "a Search Request Profile is 'representative of a third linguistic pattern.'" (Br. at 18 citing Ex. A at 5:44-45; 5:48-51.)

Here also, Plaintiff repeats its baseless argument that Defendants' construction somehow excludes embodiments or imports limitations from the claims. (Br. at 19.) Once again, the fact that Defendants' construction reflects the specification's plain language in describing what the search request profile must include, does not mean that it cannot also include other information.

2. Plaintiff proposes another inappropriately broad construction that should be rejected.

Plaintiff's construction of search request profile as a "collection of information about a search request," wholly ignores the requirement of what Plaintiff itself admits must be included in the search request profile. Indeed, like its proposed constructions for "user profile" and "data item profile," Plaintiff simply proposes a generic broad statement – without any support in the intrinsic evidence – that a profile is a "collection" of information. This is meaningless: not all collections of information are "profiles."

Plaintiff's construction places no limits on the claim term despite the detail that appears in the patent's claims and specification. For example, Plaintiff's overly broad construction would encompass the search engines that the patent acknowledges were well established by 1999: "[t]ypically, a user first inputs a 'search string' to the hypertext browser containing key words representative of the information desired by the user." (Ex. A at 2:23-25.) Plaintiff's proposed construction also erases the distinction the specification draws between the claimed invention and search engines that "depend entirely on the search string entered by the user, without any regard to the user's cultural, educational, social backgrounds, or the user's psychological profiles." (*Id.* at 2:67-3:2.) Plaintiff's construction of "search request profile," like its other proposed constructions, fails to properly reflect the language and purpose of the patent.

IV. "PSYCHOLOGICAL PROFILE" (CLAIMS 1, 3, AND 45)

Defendants' Construction	*Plaintiff's Construction*
Indefinite; One or more profiles pertaining to mental processes.	Information regarding the behavioral and/or personality traits of a person.[13]

In the parties' Joint Claim Construction Statement filed on May 22 (D.N. 232), Defendants took the position that this phrase was indefinite. Defendants' position is supported by the fact that Plaintiff proposed three materially different constructions for psychological profile. Defendants continue to believe defining the metes and bounds of psychological profile is problematic at best. In the interest of compromise, however, Defendants assert Plaintiff's first of three proposed constructions of this term, "one of more profiles pertaining to mental processes," is most consistent with the use of the term in the patent and its plain and ordinary meaning.

In particular, the patent demonstrates that the psychological profile must be something different than the user's "social, cultural, educational, economic background." (*See* Ex. A at claim 1(i) ("the linguistic characteristics of the data item correspond to the user's social, cultural, educational, economic background as well as to the user's psychological profile")) (emphasis added). Plaintiff's original proposed construction properly distinguishes a person's psychological profile from his background by focusing on profiles pertaining to mental processes.

[13] This construction was proposed by Plaintiff for the first time in its Opening Claim Construction Brief. (*See* Ex. J for previous two constructions.)

V. "DATA ITEM" (CLAIM 1)

Defendants' Construction	*Plaintiff's Construction*
Documents, websites, and other textual data that may be subjected to a search by a user.	A document, website or other piece of textual data that may be searched.[14]

The primary dispute between the parties appears to be who or what is capable of searching the documents, websites, or other textual data that make up the data item. The specification clearly and unambiguously answers this question when it states: "[t]he data items may include documents, web sites, and other textual data that may be subjected to a search by the user." (*Id.* at 5:24-26) (emphasis added). Plaintiff adopts part of this definition for its proposed construction, but ignores the clear requirement that items must be searchable by the user. Defendants' proposed construction follows the definition given in the specification and should be adopted by the Court.

Conclusion

Defendants respectfully request this Court adopt the claim constructions provided by Defendants.

DATED: August 7, 2009

By: /s/ Brian C. Cannon
Charles K. Verhoeven,
California Bar No. 170151
charlesverhoeven@quinnemanuel.com
Quinn Emanuel Urquhart Oliver & Hedges, LLP
50 California Street, 22nd Floor
San Francisco, CA 94111

[14] This construction was proposed by Plaintiff for the first time in its Opening Claim Construction Brief. (*See* Ex. J for previous two constructions.)

CERTIFICATE OF SERVICE

The undersigned hereby certifies that all counsel of record who are deemed to have consented to electronic service are being served with a copy of this document via the Court's CM/ECF system per Local Rule CV-5(a)(3). Any other counsel of record will be served by facsimile transmission and/or first class mail this 7th day of August 2009.

/s/ Brian C. Cannon
Brian C. Cannon