UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF ILLINOIS
EASTERN DIVISION

PINPOINT INCORPORATED,	)	
	)	
Plaintiff,	)	No. 11-cv-08806
	)	
v.	)	
	)	Judge Edmond E. Chang
GROUPON, INC.,	)	
	)	
Defendant.	)	

MEMORANDUM OPINION AND ORDER

Plaintiff Pinpoint Incorporated brought this suit against Defendant Groupon, Inc. alleging patent infringement, in violation of 35 U.S.C. § 271. R. 1, Compl. Pinpoint contends that Groupon owns and operates a website that infringes three of Pinpoint's patents, namely, United States patent numbers 5,754,938 (the '938 patent), 7,853,600 (the '600 patent), and 8,056,100 (the '100 patent). *Id.* ¶¶ 16, 19, 22. The parties briefed the construction of disputed terms in the claims at issue, and the Court held a claim construction hearing, comprised of oral argument. The Court decides the construction of disputed terms as set forth below.[1]

I. Background

The '600 and '100 patents are continuations of, and share a common specification with, United States patent number 5,758,257 and its continuation-in-part, patent number 6,088,722. R. 115, Def.'s Br. at 2. The common specification

[1]The Court has subject matter jurisdiction under 28 U.S.C. §§ 1331, 1338(a)-(b), 2201, 2202, 1367(a). Citation to this Court's docket is noted as "R. [docket entry number]."

describes a "system and method for scheduling the receipt of desired movies and other forms of data from a network which simultaneously distributes many sources of such data to many customers, as in a cable television system." R. 98-1, '100 Patent, J.A. at 1. "Customer profiles are developed for the recipient describing how important certain characteristics of the … data are to each customer. From these profiles, an 'agreement matrix' is calculated by comparing the recipient's profiles to the actual profiles of the characteristics of the … data." *Id.* "Based on the comparison results, one or more customized programming channels are created for transmission … containing a collection of only those [data] having content profiles which best match the customer's profile and hence are most desirable to the customer." *Id.* at 20-21. Pinpoint contends that Groupon infringes the '600 patent and the '100 patent by operating the website www.groupon.com, which includes features for creating customer profiles and emailing Groupon-selected deals to specific customers. Compl. ¶¶ 19, 22.

In the '600 and '100 patents, the parties have identified six disputed terms for construction. To give some context to these terms, examples of their usage in the patents are provided by excerpting Claim 29 of the '600 patent and Claim 36 of the '100 patent (the disputed terms are in ***bold italics***). From Claim 29 of the '600 patent:

> 29. A method of presenting data from a plurality of ***data objects***, comprising the steps of:
>
> creating at least one ***customer profile*** for a customer, said customer profile indicating the customer's preferences for data having predetermined characteristics;

creating ***content profiles*** for each of said data objects, said content profiles indicating at least one of the presence or the degree of content of said predetermined characteristics in data of each of said data objects;

relating, using a microprocessor, said at least one customer profile with the content profiles for the data available from each data object;

at a location remote from said customer, determining a subset of said data objects having content profiles which are determined, in said relating step, to ***most closely match*** said at least one customer profile; and

transmitting via a data communication system, said determined subset of said data objects to said customer location for selection by said customer.

R. 98-2, '600 Patent, J.A. at 91. And from Claim 36 of the '100 Patent:

36. A method for recommending one or more ***textual information items*** to customers from a content collection of textual information items and content profiles of said textual information items, said content profiles indicating the presence or absence or degree of presence or absence of one or more predetermined descriptive characteristics of said textual information items, the method comprising the steps of:

creating one or more customer profiles with or without a customer explicitly expressing preference for said predetermined characteristics, said customer profiles representing the customers' preferences for said predetermined characteristics;

storing said customer profiles in a memory in association with respective customer identifiers;

retrieving a customer profile subsequently from said memory, by name or other customer identifier;

operating a computer adapted by stored programming to find a subset of said textual information items having content profiles that most closely match said customer profile; and

electronically sending said subset at least partly via a data communications network to said customer for selection.

Id. at 45. The parties propose competing definitions for the terms "customer profile"/"user profile"; "content profile"; "most closely match"/"most closely correlate"/"closely match"; "information items"; "textual information item"; and "data object"/"data source"/"information source." *See* R. 124, Joint Claim Construction Chart.[2]

In addition, Groupon asks the Court to construe three terms from the '938 patent. The '938 patent claims "a cryptographically-based pseudonym proxy server … provided to ensure the privacy of a user's target profile interest summary, by giving the user control over the ability of third parties to access this summary and to identify or contact the user." R. 98-3, '938 Patent, J.A. at 96. Claim 1 of the '938 patent claims, in part, "[a] method for automatically providing a user with ***confidential*** access to selected ones of a plurality of target objects" by "***confidentially*** generating a user pseudonym at a ***proxy server***, which pseudonym is unique to said user, by means of authenticated user credentials provided by ***an authenticating entity***." *Id.* at 149-50. Pinpoint alleges that Groupon has infringed the '938 patent by using at least one proxy server in connection with www.groupon.com. Compl. ¶ 11. The parties have submitted competing constructions for the terms "confidential"/"confidentially"; "proxy server"; and "an authenticating entity." Joint Claim Construction Chart.

[2]The parties also originally disputed the term "relate"/"relating"/"correlate," but have since agreed on the following construction: "a mathematical computation of how similar the values are for the same characteristics in a customer profile and a content profile." Joint Claim Construction Chart.

II. Legal Standard

Before it can be determined whether a claim is valid or infringed, the Court must first construe the claim in order to determine its scope. *SeeProveris Scientific Corp. v. Innovasystems, Inc.*, 739 F.3d 1367, 1372 (Fed. Cir. 2014); *Kahn v. Gen. Motors Corp.*, 135 F.3d 1472, 1476 (Fed. Cir. 1998). "When construing claim terms, we first look to, and primarily rely on, the intrinsic evidence, including the claims themselves, the specification, and the prosecution history of the patent, which is usually dispositive." *Sunovion Pharms., Inc. v. Teva Pharms. USA, Inc.*, 731 F.3d 1271, 1276 (Fed. Cir. 2013). "'[E]xtrinsic evidence in general' is 'less reliable than the patent and its prosecution history in determining how to read claim terms.'" *SkinMedica, Inc. v. Histogen Inc.*, 727 F.3d 1187, 1195 (Fed. Cir. 2013) (quoting *Phillips v. AWH Corp.*, 415 F.3d 1303, 1318 (Fed. Cir. 2005) (en banc)).

Claim terms are generally given "their ordinary and customary meaning as understood by a person of ordinary skill in the art when read in the context of the specification and prosecution history." *Butamax(TM) Advanced Biofuels LLC v. Gevo, Inc.*, 746 F.3d 1302, 1309 (Fed. Cir. 2014) (internal quotation marks and citation omitted). "'There are only two exceptions to this general rule: 1) when a patentee sets out a definition and acts as his own lexicographer, or 2) when the patentee disavows the full scope of a claim term either in the specification or during prosecution.'" *Starhome GmbH v. AT & T Mobility LLC*, 743 F.3d 849, 856 (Fed. Cir. 2014) (internal quotation marks and citation omitted).

III. Analysis

A. Customer/User Profile & Content Profile

The parties dispute the meaning of the term "customer profile" or "user profile," which appear in both the '600 patent and the '100 patent. Joint Claim Construction Chart. Groupon argues that a customer profile refers to a "mathematical construct quantifying the customer's preferences for predetermined characteristics of content." *Id.* Pinpoint proposes "information indicating customer preferences using quantifiable values." *Id.*

As the Court noted at the *Markman* hearing, Pinpoint's proposed construction is imprecise in two ways. First, a customer profile does not merely reflect customer preferences *using* quantifiable variables in some general way; rather, as Pinpoint acknowledged, the preferences themselves are *expressed* in quantifiable values. R. 133, Hr'g Tr. at 30. Second, the customer preferences in Pinpoint's construction are not anchored to anything specific. In contrast, both the '600 and '100 patents describe a customer profile created from a "customer's preferences *for data having predetermined characteristics*," '600 Patent at 54:52-53 (emphasis added), or "representing the customers' preferences *for said predetermined characteristics*," '100 Patent at 54:3-5 (emphasis added). On the understanding that Groupon's proposed construction does not limit the characteristics themselves—other than to say that they must be (1) predetermined and (2) characteristics of data or information[3]—Pinpoint stated at the *Markman*

[3]At the *Markman* hearing, both Pinpoint and Groupon agreed to the clause "predetermined characteristics of content," but on further consideration, the Court will drop

hearing that it has no objection to the modifying clause "for predetermined characteristics." Hr'g Tr. at 31-32. As a result, only the "mathematical construct" portion of Groupon's proposed construction is left in dispute.

That language is grounded in two earlier-filed cases regarding the same family of patents. The first was *Pinpoint, Inc. v. Amazon.com, Inc.*, 369 F.Supp.2d 995 (N.D. Ill. 2005), in which the court construed the terms "customer profile" and "content profile" in the '100 and '600 patents' parents. Noting that the "content and customer profiles in *all* the specifications include characteristics with quantifiable values," the court construed the terms "customer profile" and "content profile" as "*mathematical* constructs of customer preferences and program contents." *Id.* at 1001-02 (emphases in original). The second was *Pinpoint, Inc. v. Hotwire, Inc.*, No. 11 C 5597, 2013 WL 1174688 (N.D. Ill. Mar. 20, 2013), in which the court considered the same three patents-in-suit. It is true that the *Hotwire* order on which Groupon relies dealt primarily with indefiniteness contentions, but the order did go on to consider whether the terms "customer profile" and "content profile" in the '600 and '100 patents were "limited to the mathematical constructs disclosed in the

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the "of content" part of the construction. The problem with "of content" is that it suggests, to a non-artisan in this field, a reference to the *substance* (that is, the content) of an item of data or information, rather than the data or information itself. But the patents-in-suit do not limit the predetermined characteristics to the substance of the data or information: for example, it is true of course that a user could indicate a preference for romance or action movies (content-related movie characteristics), but it is also true that a user could indicate a preference for movies from a particular time period (*e.g.*, the 1980s) or directed by a particular director, which are not ordinarily thought of as *content*-related characteristics. For simplicity, and with a view toward using the claim constructions as part of jury instructions, the words "of content" can be omitted. It is clear in the asserted claims that the predetermined characteristics are "in data" ('600 patent) or "of said textual information items" ('100 patent), so "of content" is unnecessary and potentially misleading.

patents." *Id.* at *7. The court rejected Hotwire's contention that the patents-in-suit were limited to the specific algorithms disclosed in the specifications. *Id.* at *8. But, echoing the earlier findings in *Pinpoint v. Amazon*, the court did hold that the terms "customer profile" and "content profile" are limited to mathematical constructs. *Id.* at *12. For the reasons thoroughly discussed in those orders, the Court agrees that a "customer profile" or "user profile" must take the form of a mathematical construct. Accordingly, both terms are construed as "a mathematical construct quantifying the customer's preferences for predetermined characteristics."

For the same reasons, the related (and also disputed) term "content profile" is also limited to a mathematical construct. In line with its proposed construction of "customer profile," Groupon contends that a "content profile" is a "mathematical construct quantifying the level of content of predetermined characteristics in the textual information item or data object." Joint Claim Construction Chart. Pinpoint, in turn, proposes "information about content using quantifiable values." *Id.* The asserted claims already make clear that "content profiles" are made for data objects ('600 patent) or textual information items ('100 patent), so Groupon's limitation to data objects and textual information items is unnecessary. Accordingly, applying the above constructions on "predetermined characteristics" and "mathematical construct," the Court construes "content profile" as a "mathematical construct quantifying the level of predetermined characteristics."

B. Most Closely Match/Most Closely Correlate/Closely Match

Having determined that customer profiles mathematically reflect a customer's preferences for predetermined characteristics, and that content profiles correspondingly reflect the level of those characteristics, the next step is to compare a customer profile with content profiles to determine which content to provide to a customer. The patents-in-suit accomplish this by identifying "a subset of said textual information items having content profiles that most closely match said customer profile." '100 Patent at 54:12-14; *see also* '600 Patent at 54:61-64. The parties dispute the meaning of the term "most closely match" and the related terms "mostly closely correlate" and "closely match." *See* Joint Claim Construction Chart. Groupon proposes construing all three terms as "numerically closest based on a mathematical computation of how similar values are for the same set of characteristics." *Id.* Pinpoint proposes, for the terms "most closely match" and "most closely correlate," the following: "finding the subset of data objects having content profiles that comprise the most suitable pairings to the customer." For "closely match," Pinpoint simply argues giving that term its plain and ordinary meaning, *id.*, whatever that is.

Based on the proper constructions of customer profile and content profile, Groupon's proposed construction makes sense. Because customer profiles and content profiles are mathematical constructs relating to predetermined characteristics, the "close[ness]" of those profiles must refer to the numerical

closeness of the values for shared characteristics. Pinpoint's construction, which can really be pared down to "compris[ing] the most suitable pairings to the customer," does not adequately convey the mathematical comparison of customer profiles and content profiles. As Groupon argues, Def.'s Br. at 17, "the most suitable pairings" are the *result* of a matching system, not the measure by which the closest matches are identified.[4]

At the *Markman* hearing, Pinpoint expressed two concerns about Groupon's proposed construction: (1) that Groupon might attempt to limit the mathematical comparison to the particular "agreement matrix" described in the specification, and (2) that "numerically closest" could be construed as the *singular* closest match. Hr'g Tr. at 33-34. On the first point, Groupon explained (and the Court agrees) that the mathematical computation is not limited to any particular formula. *Id.* at 40-41. Indeed, the specification identifies a number of mathematical calculations for comparing customer profiles to content profiles. On the second point, nothing in Groupon's construction limits *how many* content profiles can "most closely match" or "closely match" a given customer profile. So, a user of the claimed method (or a distributor of the content) may set the matching threshold to whatever numerical closeness the user or the distributor wants. (And, for this reason, "closely match" and "most closely match" can be construed together and are merely a difference of degree). Accordingly, "most closely match," "most closely correlate," and "closely match" are construed as "numerically closest based on a mathematical computation

[4]For this reason, the Court need not address Groupon's prosecution-history estoppel argument. *See* Def.'s Br. at 17.

of how similar values are for the same set of characteristics."

C. Information Items, Textual Information Items & Data Objects

The parties next dispute three terms that are used interchangeably throughout the '100 and '600 patents: "textual information items," "information items," and "data objects." Joint Claim Construction Chart. On the first two terms, it appears that the only difference between an information item and a textual information item is that a textual information item is text-based (like a newspaper or book), as opposed to, for example, an audio or visual item (like a song or movie). As for information items and data objects, in the context of the asserted claims, both terms refer to material for which a content profile is created, in the same form that is ultimately recommended to a user. '600 patent at 56:57-62, 57:5-8 (information item); *id.* at 52:59-62, 53:5-8 (data objects); *see also* '100 Patent at 53:61-64 (textual information items).

The parties' proposed constructions for the three terms vary widely. For information items, Groupon proposes "items of information accessible by users from information sources that include content with particular characteristics." Joint Claim Construction Chart. In contrast, Pinpoint proposes construing information item as "a digital representation of content, a good, or a service available for access by the user." *Id.* Despite the fact that information items and textual information items appear to differ only in the form of their content, the proposed constructions for textual information item bear surprisingly little resemblance to those for information item: Groupon proposes "an entire text or news item in electronic form,"

while Pinpoint proposes "a digital representation of textual information, not some portion of a body of text." *Id.* The suggestions for "data object" are more diverse still: Pinpoint proposes a "collection of data about an item of interest." *Id.* In contrast, Groupon argues that a data object is synonymous with a "data source" or "information source," construing all three as "a specific source of data with particular characteristics." *Id.*

The Court first addresses Groupon's contention that data objects, data sources, and information sources refer to the same thing. In support of its common construction, Groupon cites three claims from the '600 patent that it contends use the three terms interchangeably: "claim 1 ('A method of presenting data from a plurality of *data objects* …'); claim 26 (A method of presenting data for selection from a plurality of *data sources* …) and claim 42 ('… monitoring which of a plurality of information items from one or more *information sources* …')." Def.'s Br. at 22. It is true that the asserted claims alternately describe data objects, data sources, and information sources as the sources of data or information available for customer consumption. But the three claims highlighted by Groupon also illustrate the dividing line between data objects and information items on the one hand and data sources and information sources on the other: suitable data objects and information items are ultimately presented to a customer for selection, whereas information sources and data sources are not. '600 Patent at 53:5-8 ("presenting said determined subset of *data objects* … for selection by said customer"); 54:43-44 ("presenting said

subset of data [not data sources] to said customer for selection"); 56:61-62 ("sending the selected subset of the plurality of *information items* to the at least one user").

As a matter of plain meaning (viewed from the skilled artisan's standpoint), this distinction makes sense—a data object comes from a data source, and an information item comes from an information source. It is true, however, that the patents use the word "data" differently in different contexts. At times, data refers to the material presented to a customer from a data source (*see, e.g.*, '600 Patent, Claim 26); but, in other contexts, data refers to the information contained *within* the material that is presented to the customer (*see, e.g.*, '600 Patent, Claim 1). As discussed in Footnote 3 above, the word "content" gives rise to similar confusion, in that content can refer to the material presented to a customer (as in a book or movie) or to the matter within those materials (as in the violent or romantic content of a book or movie). The word data, standing alone, is broad enough to encompass both data objects (like a news story, for example) and the information within those objects (like particular stock information). Despite that breadth of meaning, the possibility remains that data *objects* and data *sources* have different meanings.

In further support of its position that data objects and data sources are interchangeable, Groupon points out that content profiles are generated for both data objects and data sources. Def.'s Br. at 20-22. But that does not compel a different conclusion. In the context of the preferred embodiment, for example, a data source might refer to a broadcast channel while a data object would refer to an individual program offered on the channel. *See* J.A. at 23. Both the channel (the

data source) and the individual programs (the data objects) can be profiled by characteristics, but only the programs would ultimately be recommended to a user. Groupon argues that construing data object as something other than a data source would mean adding new matter to the specification, *see* Def.'s Br. at 21, but that is an invalidity contention that Groupon may assert at a later stage in the litigation. For all of these reasons, data *object* will be construed with information *item* and textual information *item*, whereas data *source* and information *source* will be construed separately below.

Turning to the parties' proposed constructions for information item, neither is particularly helpful. Groupon's proposal contains a number of redundancies that do not actually help define the term. Split into its three parts, Groupon's construction defines information item as an item of information that is (i) accessible by users (ii) from information sources (iii) that include content with particular characteristics. Each modifier is already evident from the claims,[5] and none explains what an information item actually *is*, leaving essentially the proposition that an information item is an item of information. Pinpoint's construction is also flawed. As Pinpoint acknowledged at the *Markman* hearing, limiting an information item to a *digital*

[5]For example, Groupon defines information items in part as "items of information accessible by users," but the underlying purpose of the claimed invention is to identify material to recommend to users. *See, e.g.* '100 Patent at 53:61-62 (claiming "[a] method for recommending one or more textual information items to customers"). So Groupon's construction does not meaningfully add to an understanding of this term. Claim 36 of the '100 patent goes on to explain that information items are recommended from "content profiles of said textual information items, said content profiles indicating the presence or absence or degree of presence or absence of one or more predetermined descriptive characteristics of said textual information items." '100 Patent at 53:63-67. So, once again, defining information items as items that "include content with particular characteristics" is also not helpful.

representation is neither necessary (because the claimed method is internet-based) nor supported by the intrinsic record. *See* Hr'g Tr. at 45-46. In fact, the broader proposition that an information item is a mere *representation* of some other material is inaccurate where the asserted claims make clear that the information item is itself the content profiled and available for access by the user. *See* '600 Patent, Claim 40 ("*A method of providing access to content*, comprising: … for each of a plurality of *information items* from one or more information sources, creating a content profile … and providing the at least first user access to said subset of the plurality of information items." (emphasis added)). As for Pinpoint's contention that an information item can extend even further to a representation of "a good, or a service," that proposition is simply unsupported by the intrinsic record.

Although the proposed constructions for textual information item are similarly vague, they do add one helpful limitation: both parties agree that a textual information item refers to a textual item in its *entirety*, rather than to a mere excerpt of text. *See* Joint Claim Construction Chart. For a number of reasons, it makes sense to extend that limitation to information items and data objects, and to find that each term refers to an item in its entirety. First, as discussed above, the only difference between an information item and a textual information item is the textual nature of the item's content—it does not follow that a difference of that nature would affect whether the item must be in its entirety. Second, as a matter of plain meaning, information *items*, textual information *items*, and data *objects* are discrete materials, as distinct from the pieces of information or data of which they

are comprised. That reading is supported by the claims, which make clear that textual information items, information items, and data objects are all expressions of data or information in the format that is ultimately presented to a user and—perhaps more importantly—for which content profiles are created. Content profiles must apply to the entirety of an item or object, rather than a piece of it. Accordingly, the Court construes data object and information item as "the entirety of an item of information or data," and textual information item as "the entirety of an item of information or data expressed in text."

D. Data Source & Information Source

Returning to the terms "data source" and "information source," Groupon proposes construing both as "a specific source of data with particular characteristics." Joint Claim Construction Chart. Pinpoint argues that Groupon's proposal does not meaningfully construe either term, and that each should simply be assigned its plain and ordinary meaning. R. 119, Pl.'s Br. at 6. The Court agrees that Groupon's proposed construction is not particularly elucidating, but in light of the confusion over the data- and information-related terms, some construction would be helpful.

The best way to understand a data source or information source is to examine the illustrations provided in the '100 and '600 patents. In one example, the specification suggests that "the invention may be used to match a potential purchaser to real estate on the market … [by] match[ing] the customer's profiles to the profiles of the available homes. … In this example, the data source would be the

standardized real estate listings." J.A. at 44. Using this example, a three-level hierarchy emerges: at the highest level of available content is the data source (here, the collection of real estate listings). Call that the "source level." One level down is the data object (an individual listing for a home of interest) that is ultimately recommended to the user; call that the "object/item level." At the lowest level, is the data or content contained within the data object (the particular characteristics of the desired house).

Although the terms used to express these distinctions vary from claim to claim, the same hierarchy repeats throughout the '100 and '600 patent claims. Claim 1 of the '100 patent claims "a method for recommending one or more *textual information items*" (the object/item level), "from a *content collection* of textual information items" (the source level), based on "content profiles indicating the presence or absence of said *descriptive characteristics*" (the data or content within the object/item) of the information items. J.A. at 44 (emphases added). Claim 24 similarly describes a method for "recommending *data objects*" (the object/item level), "from a *content collection*" (the source level), based on "content profiles indicating the presence or absence of said *predetermined characteristics*" (the data or content within the object/item) in the data objects. *Id.* at 45 (emphases added). In both claims, the "content collection" stands in the place of a data source or information source—that is, it refers to the source of the information items or data objects that are ultimately recommended to the user. The fact that an information source is the source of an information item is more explicit still in, for example, Claim 40 of the

’600 patent: “a method of providing access to content” by creating a content profile for each of a plurality of “information items” (object/item level), “from one or more information sources” (the source level). J.A. at 92.

The connection between data sources and data objects is less explicit because of the earlier-discussed ambiguity of the word “data.” Claim 26 of the ’600 patent describes a “method of presenting *data* for selection from a plurality of *data sources*,” by “relating said at least one customer profile with the content profiles for the data available to the customer from each data source” and “presenting said subset of data to said customer for selection.” J.A. at 91 (emphases added). Although the claim discusses the hierarchy in terms of “data sources” and “data,” it is clear that data in this context must refer to data objects (object/item level), rather than to bare data (the data or content within the object/item). Each piece of data within the object/item is the basis from which a content profile is created, whereas the object/item level of data is the entirety of the item that is profiled and ultimately presented to a user. So, where the claims refer to profiling and presenting “data” from a data source to a user, data there means data *objects*.

With this understanding, “data source” is construed as “a collection of data objects.” “Information source” is construed as “a collection of information items or textual information items.”

E. Confidentially

Turning to the ’938 patent, the parties first dispute the meaning of the term “confidential” or “confidentially.” Joint Claim Construction Chart. Groupon proposes

"in a manner such that the service provider does not know a user's true identity or any other identifiable information." *Id.* Pinpoint proposes "protected from unwanted disclosure to third parties." *Id.* At the heart of this dispute is whether confidentiality applies to the service provider, in addition to third parties. Based on the specification, the Court holds that it does.

The '938 patent describes the following problem:

> For reasons of confidentiality and privacy, a particular user may not wish to make public all of the interests recorded in the user's target profile interest summary, particularly when these interests are determined by the user's purchasing patterns. The user may desire that all or part of the target profile interest summary be kept confidential …. It is therefore necessary that data in a user's target profile interest summary be protected from unwanted disclosure except with the user's agreement. *At the same time, the user's target profile interest summaries must be accessible to the relevant servers that perform the matching of target objects to the users, if the benefit of this matching is desired by both providers and consumers of the target objects.*

J.A. at 113 (emphasis added). The problem is initially framed in terms of a user not wanting to make her profile *public*, which could support Pinpoint's third-party-oriented construction. But the specification goes on to explain that the resulting tension plays out between a user's desire for confidentiality and the *service provider's* need to access a user's profile in order to perform the claimed matching process. As a result, "[t]he disclosed system provides a solution to the privacy problem by using a proxy server which acts as an *intermediary between the information provider and the user*." *Id.* (emphasis added).

Pinpoint focuses on the language regarding "protect[ion] from unwanted disclosure except with the user's agreement." Pl.'s Br. at 7. It argues that this phrase makes clear that "confidential" does not absolutely prohibit disclosure of the

user's identity to the service provider. *Id.* The Court agrees that disclosure is not absolutely prohibited—but only because the specification makes clear that a user may consent to disclosure of her identity. In other words, nondisclosure of a user's identity is the default unless a user specifies otherwise. But, based on the problem and solution described, that nondisclosure protects a user's identity from service provider and third parties alike. "Confidential" and "confidentially" are thus construed as "in a manner such that the user is able to prevent the service provider from knowing or determining the user's true identity."

F. Proxy Server

The parties next dispute the related term "proxy server." Groupon proposes "a server other than the target server that acts as an intermediary between the user and the information providers to give the user control over the ability of third parties to access user-specific information or to identify or contact the user." Joint Claim Construction Chart. Pinpoint proposes "server which communicates with clients and other servers in the network." *Id.*

Pinpoint's proposal does not distinguish a proxy server from any other kind of server. In light of the specific solution proposed by the '938 patent's specification, *see* J.A. at 113, Groupon's proposal of "a server … that acts as an intermediary between the user and the information providers" is more accurate and descriptive. The remainder of Groupon's proposed construction, which describes the purpose of the proxy server, is already adequately reflected in the construction of

"confidential." So, the only remaining issue is whether a proxy server and the target server must be separate.

Groupon argues that they do not, noting the specification's suggestion that "[a]ny server in the network N may be configured to act as a proxy server in addition to its other functions." '938 Patent at 32:14-16. But, as discussed at the *Markman* hearing, that language does not really support Groupon's argument, for two reasons: (1) as used in the specification, "network N" could refer to the entire internet—meaning simply that any server is technically capable of being configured to function as a proxy server, but (2) given the privacy concerns addressed by the '938 patent, configuring the target server to act as a proxy server (even if it could technically perform that function) would undermine the purposes of the patent. Hr'g Tr. at 61-62. This view is supported by the specification's explanation that "rather than directly corresponding with each server, the user employs a proxy server … as an intermediary between the local server of the user's own client and the information provider or network provider." '938 Patent at 37:2-7. This explanation necessarily requires that the user communicate with the proxy server instead of corresponding directly with the information provider. For these reasons, the Court construes "proxy server" as "a server other than the target server that acts as an intermediary between the user and the information provider."

G. Authenticating Entity

Finally, the parties dispute the meaning of the term "authenticating entity." Joint Claim Construction Chart. As the specification explains, "[t]he organizations

which are presented with a pseudonym have no more information about the individual than the pseudonym itself and a record of previous transactions carried out under that pseudonym." '938 Patent at 35:33-36. To protect service providers while maintaining users' confidentiality, the patent describes working with "credential-issuing organizations" to certify particular facts about the person associated with a given pseudonym (like age, financial status, or legal status). *Id.* at 35:46-63. In the context of the claims, these organizations are referred to as authenticating entities. *See, e.g.*, *id.* at 79:4-7.

Groupon proposes construing "authenticating entity" as "a third-party trusted credentialing agent that provides and verifies user credentials and administers the creation of unique pseudonyms for users." Joint Claim Construction Chart. Pinpoint proposes "an entity that provides user credentials." *Id.* At bottom, the parties' dispute centers on whether the authenticating entity must be a third-party or if, as Pinpoint suggests, the authenticating entity could be the service provider itself. The specification makes clear that the purpose of employing an authenticating entity is to provide assurances of an anonymous user's credentials *to the service provider*. *See* '938 Patent at 35:33-36. Indeed, it contemplates the service provider supplying the relevant credentials, while remaining ignorant of a user's true identity. *See id.* at 31:63-32:2 ("For example, a service provider may require proof that the purchaser has sufficient funds on deposit at his/her bank … before agreeing to transact business with that user. The user, therefore, must provide the service provider with proof of funds (a credential) from the bank, while still not

disclosing the user's true identity to the service provider."). Accordingly, the Court holds that an authenticating entity must be a third party.[6]

The remaining limitations in Groupon's proposed construction (that an authenticating entity (1) provides and verifies user credentials and (2) administers the creation of unique pseudonyms for users) are supported by the specification. The fact that an authenticating entity verifies user credentials is not disputed, as evidenced by Pinpoint's own construction. As for the administration of user pseudonyms, the '938 patent distinguishes prior art by "provid[ing] for assurance of unique and credentialed registration of pseudonyms from a credentialing agent." *Id.* at 34:4-6; *see also id.* at 37:16-23 ("Once a user applies to server Z for a pseudonym P and is granted a signed pseudonym … [t]he user now sends proxy server S2 the pseudonym, which has been signed by Z to indicate the authenticity and uniqueness of the pseudonym."). Accordingly, "authenticating entity" is construed as "a third-party credentialing agent that provides and verifies user credentials and administers the creation of unique pseudonyms for users."

IV. Conclusion

For the reasons discussed above, the Court construes the disputed terms as follows:

"Relate," "relating" and "correlate": a mathematical computation of how similar values are for the same set of characteristics in a customer profile and a content profile.

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[6]As discussed at the *Markman* hearing, the fact that the authenticating entity must be "trusted" is implicit in its function and need not be explicitly stated (for fear of creating an additional burden of proof at trial regarding the service provider's "trust" in the authenticating entity). *See* Hr'g Tr. at 74-75.

"Customer profile" and "user profile": a mathematical construct quantifying the customer's preferences for predetermined characteristics.

"Content profile": a mathematical construct quantifying the level of predetermined characteristics.

"Most closely match," "most closely correlate," and "closely match": numerically closest based on a mathematical computation of how similar values are for the same set of characteristics.

"Information item" and "data object": the entirety of an item of information or data.

"Textual information item": the entirety of an item of information or data expressed in text.

"Data source": a collection of data objects.

"Information source": a collection of information items or textual information items.

"Confidential" and "confidentially": in a manner such that the user is able to prevent the service provider from knowing or determining the user's true identity.

"Proxy server": a server other than the target server that acts as an intermediary between the user and the information provider.

"Authenticating entity": a third-party credentialing agent that provides and verifies user credentials and administers the creation of unique pseudonyms for users.

ENTERED:

s/Edmond E. Chang
Honorable Edmond E. Chang
United States District Judge

DATE: November 17, 2014