1 IN THE UNITED STATES DISTRICT COURT 2 IN AND FOR THE DISTRICT OF DELAWARE 3 PERSONALIZED USER MODEL, L.L.P., : CIVIL ACTION 4 Plaintiff, : 5 : v. 6 GOOGLE, INC., : 7 : NO. 09-525-LPS Defendant. 8 _ _ _ 9 Wilmington, Delaware Tuesday, January 11, 2011 10 Claim Construction Hearing 11 _ _ _ 12 BEFORE: HONORABLE LEONARD P. STARK, U.S.D.C.J. 13 _ _ _ **APPEARANCES:** 14 15 MORRIS NICHOLS ARSHT & TUNNELL, LLP BY: KAREN JACOBS LOUDEN, ESQ., and 16 JEREMY A. TIGAN, ESQ. 17 and SNR DENTON, LLP 18 BY: MARK C. NELSON, ESQ. 19 (Dallas, Texas) 20 and 21 SNR DENTON, LLP BY: MARC S. FRIEDMAN, ESQ. 22 (New York, New York) 23 and 24 25 Brian P. Gaffigan Registered Merit Reporter

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22	PROCEEDINGS
23	(REPORTER'S NOTE: The following claim
24	construction hearing was held in open court, beginning at
25	10:08 a.m.)

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1	THE COURT: Good morning, everyone. Let's start
2	by putting your appearances on the record, please.
3	MS. JACOBS LOUDEN: Good morning, your Honor.
4	THE COURT: Good morning.
5	MS. JACOBS LOUDEN: For the plaintiffs, Karen
6	Jacobs Louden and Jeremy Tigan from Morris Nichols Arhst &
7	Tunnell; and I have with me here today Mark Nelson, Jennifer
8	Bennett and Marc Friedman from the firm of SNR Denton; and
9	we also have here with us today Yochai Konig who is one of
10	the inventors and a representative of the plaintiff
11	Personalized User Model.
12	Thank you, your Honor.
13	THE COURT: Thank you.
14	MR. HORWITZ: Good morning, Your Honor.
15	THE COURT: Good morning.
16	MR. HORWITZ: Rich Horwitz from Potter Anderson
17	here today for Google; and with me from Quinn Emanuel are
18	David Perlson and Andrea Roberts at counsel table; and then
19	behind the table from Google, in-house counsel, Laura
20	Majerus and John LaBarre.
21	THE COURT: Well, welcome to all of you. So
22	we're here this morning for the Markman hearing. We
23	assigned both sides 90 minutes. Have you any suggestions
24	as to how we split that time up and actually proceed?
25	Mr. Nelson.

1 MR. NELSON: Yes, your Honor. The plaintiffs 2 and defendants -- or plaintiff and defendant had talked 3 earlier about proceeding, and I guess if you guys were still in agreement, we were just going to proceed with our 4 5 affirmative presentation, reserving some time for rebuttal, and then they were going to proceed with their presentation. 6 7 THE COURT: Okay. That's fine. MR. PERLSON: That's fine. 8 THE COURT: Okay. Then we'll hear first from 9 10 the plaintiff. 11 MR. NELSON: Before we start, may we distribute 12 some materials? 13 THE COURT: That would be helpful, yes. Thank 14 you. MS. JACOBS LOUDEN: Thank you, your Honor. 15 16 (Binders passed forward.) 17 MR. NELSON: Good morning, your Honor. 18 THE COURT: Good morning. 19 MR. NELSON: We're here today to talk about the 20 claim construction of Personalized User Model, LLP or PUM, 21 or "Pum" for short, versus Google. For the Court's reference, I have the claims, 22 23 the three dependent claims at issue just on the board there. So if the Court wants to look at the claims in total, the 24 25 Court may do so. And I may refer to those every once in

1	awhile.
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2	We have a lot of slides, as you have now seen.
3	What I plan to do is to try to hit the real highlights.
4	I'll probably skip through a lot of the slides. There is
5	some legal stuff in there that is in the briefs. There are
6	some other things in there that are sort of text summaries
7	of the argument, so I'll try to work through it rather
8	quickly, skipping some of the slides.

9 The presentation is organized into basically 10 seven parts. We've divided the accused groups of terms in 11 order of steps and antecedent basis into sort of seven 12 somewhat related areas, and so the presentation is organized 13 into those seven areas and individual disputes about terms 14 or phrases within those seven areas are contained with that 15 part, so that is how it is organized.

16 Additionally, it's organized as Phillips 17 teaches. First, we look at the claims. Then we look at the specification. Then we look at prosecution history, if it's 18 19 available or relevant. Then we look at extrinsic evidence, to the extent that it's dictionaries or treatises at or near 20 21 the time of the patent. And then, finally, inventor testimony, to the extent it's relevant. We don't think it 22 23 is, as we said in the brief. We don't have any I don't 24 think in our affirmative presentation but for one slide that doesn't relate to the definition of a term, it relates more 25

1 to introducing some concepts.

2	So with that, I'll go ahead and start. And I'll
3	skip over a couple things here. There are two asserted
4	patents, the '040 and the '276. The title is Automatic,
5	Personalized Online Information and Product Services.
6	Yochai Konig is one of the inventors. He is sitting back
7	here.
8	The patents identify several objectives which
9	we're going to skip through.
10	There are 15 asserted claims. As I said
11	earlier, three independent claims that are here, and then
12	independent claim dependent claim 34 of the '040 depends
13	from independent claim 32, and so indirectly that one is at
14	issue, too. I don't have a board for that.
15	Legal principles which of the Court is familiar
16	with, the only one I'll talk about is this one briefly. As
17	in all claim construction cases, claims must be read in view
18	of the specification of which they are a part, but it is
19	improper to read limitations from the spec into the claims.
20	PUM's position is that its proposed
21	constructions conform to this and follow the first bullet
22	point and don't follow the second and the defendants is just
23	the opposite.
24	THE COURT: There is a lot of reference to
25	figure 2 of the patent. First of all, the specification is

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1	the same for both patents; correct?
2	MR. NELSON: Correct, your Honor.
3	THE COURT: I think it was Google that said in
4	their tutorial that claim 1 of both the '040 and the '276
5	patents track figure 2. To you agree with that?
6	MR. NELSON: Not completely, your Honor.
7	Because figure 2 doesn't talk about a search request at all.
8	THE COURT: Okay.
9	MR. NELSON: So figure may I approach?
10	THE COURT: Yes.
11	MR. NELSON: Both the boards of the '276
12	patent have receiving a search query from the user, step d,
13	retrieving documents based on that query. And step d
14	here, collecting a plurality of documents of interest to
15	a user.
16	So those are not in '040, claim 1.
17	THE COURT: And, therefore, they're not in
18	figure 2.
19	MR. NELSON: They're not in figure 2. Exactly.
20	THE COURT: But other than that addition on the
21	search query, does figure 2 apply to the '276 patent?
22	MR. NELSON: Yes, generally I think that is
23	right. Figure 2 is a preferred embodiment, but it would
24	apply to a lot of the activities that are going on in the
25	'276 as well.

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1	And so here is our seven groupings right here,
2	laid out, and I won't read them at this point. I'm going
3	to address the first five; and then my colleague, Jennifer
4	Bennett, is going to address the other two.
5	So this slide just sets forth what all the
6	disputes are, and on the left side is the relevant claim
7	language here.
8	And so the first phrase term in dispute and
9	I'm on slide 9 is: estimating parameters of a
10	user-specific learning machine.
11	And within that dispute, there are several other
12	disputes. Parameters, what that means; what estimating
13	parameters means; what learning machine means; what
14	user-specific learning machine means; and then what it
15	means, user model specific to a user; what it means to be
16	specific to the user or user specific in the context of
17	the '276 patent; and then ultimately what the user model
18	actually is.
19	And so the first groupings I want to address are
20	parameters and estimating parameters. But before getting
21	into that, I kind of want to set the stage as to what one of
22	the big overall disputes is. And one of the big overall
23	disputes is I'll take my watch off here so I can time.
24	One of the big overall disputes is what it means to be
25	specific to the user.

1	According to our understanding of defendant
2	Google's position, each user model, each learning machine
3	must be "unique to the user."
4	Our understanding of what they mean by unique,

which I'm not sure that is correct but that's how we interpret it, is that if I have a user model and my colleague Jennifer had a user model, it would be, first of all, unique, the one and only one to us, and its parameters as defendant defines parameters being variables would be unique.

So if you had variables in this context, are 11 12 you interested in sports, or to the degree that you are interested in cars, they could a binary value or not a 13 14 binary value. Google says those phrases, if you will, would be the parameters. And so the parameters of my learning 15 16 machine, of Jennifer's learning machine, of your Honor's 17 learning machine and a million other learning machines would all be unique to an individual person, and they would all 18 19 have different parameters, different sets of questions.

That is very different from PUM's position. PUM's position is that the claim language requires that the user model in the learning machine be specific to the user, meaning that there is a user model associated with the user but the specificity is given by our definition of the parameters which are the values and weights given to the

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1	variables.
2	So my learning machine "am I interested in
3	sports" might be a 1. Yes, I am. Jennifer's might be a 0.
4	No, she is not.
5	Or if you take a non-binary, the degree of
6	interest in cars: Mine might be a .6. Jennifer is a car
7	buff. She might be a .9.
8	It's those values that are the parameters and
9	it's those values that make the user models specific to the
10	user or the learning machine specific to the user. That is
11	a big overall debate that runs through a lot of these
12	"learning machine" terms.
13	THE COURT: And under PUM's construction, if two
14	people have precisely the same variables and values, let's
15	just say for now, is that within the scope of the claims or
16	not within the scope? That is, if there happen to be two
17	that are completely identical, are they specific or are they
18	not specific?
19	MR. NELSON: They would still be specific to the
20	user. And, in fact, the specification, which I will get to
21	if I can get the right slide here, actually teaches that
22	exact embodiment. I'll have to get to it in the order, but
23	the specification talks about two instances where that
24	embodiment is actually taught. The first, when the user
25	models are initialized, a user can wear a hat or a prototype

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1	user. Well, in that case, if they're both being initialized
2	we would have the exact same user model. So even though
3	there are two people that have the same one, it would be
4	specific to us because it's associated with us.
5	The specification also talks about at any
6	point in time, a user can choose a temporary profile or
7	a temporary hat. And it gives an example of a venture
8	capitalist in Silicon Valley buying a birthday present for
9	his teenage daughter; and, in that example, he chooses the
10	profile, and here it the actual text here on slide 60. He
11	chooses the profile of his or her teenage daughter at this
12	point.
13	Users can choose profiles on a temporary basis
14	for any session. So any number of users can choose from, in
15	this embodiment, a particular set of predetermined profiles,
16	and if more than one user chose those temporary profiles at
17	the same time, they would have the same user model. It
18	would still be specific to the user, but it wouldn't be
19	"unique to the user" as Google suggests.
20	THE COURT: Well, what would be a nonspecific
21	profile?
22	MR. NELSON: A nonspecific profile?
23	THE COURT: Right.
24	MR. NELSON: A nonspecific profile would be if
25	you had a situation like a group model, for example, where

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1	you had or a clustering, as it's called, where you had a
2	whole group of users together for the purposes of
3	determining the interest in some particular topic. That
4	would be a nonspecific user model. And the patents talk
5	about that as a group model, for example, or a cluster
6	model.
7	Can you type in slide 17?
8	So let's talk about parameters real quick here.
9	We define it as values and weights, as I said.
10	Google defines it as variables. And then the phrase
11	estimating values or weights, we or estimating parameters,
12	we describe as estimating values or weights and Google
13	describes that as estimating a value or weight of each of
14	the variables, and then they have this "to calculate a
15	probability" language here on the bottom as well which is
16	disputed.
17	So slide 17 summarizes the disputes for this
18	area. And then I'll point out for the Court, too, we tried
19	to color the slide so we're talking about the parameters
20	term here in the broader "learning machine" terms and
21	phrases grouping.
22	And so why are the parameters, weights and
23	values? Well, first, because the claims mandate that they
24	be weights and values, that they're not the variables.
25	And why do I say that? Well, the claim language

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1	is specific. It talks about estimating parameters.
2	In the context of estimating, it's a
3	mathematical-type function. Typical meaning of estimate,
4	calculate approximately, rough calculation.
5	When you estimate parameters, if you are talking
6	about parameters being the variable and the variable being
7	defendant's definition, how much do I like sports, it
8	doesn't make sense to talk about I like it very much or a
9	little bit or a lot or somewhat. It only makes sense that
10	you are estimating the actual parameters if you talk about
11	it in terms of a number.
12	And so that is the first point with respect
13	to the claim language that indicates that it should be a
14	number, a value, a weight, not a variable as Google
15	suggests.
16	Secondly, the claims talk about using the
17	parameters to define a user model specific to the user. And
18	they talk about, wherein the probability is estimated by
19	applying the identified properties of the document to the
20	learning machine having the parameters defined by the user
21	model.
22	And as we'll get to in a minute, a learning
23	machine, in our view, clearly is a function or a model.
24	Well, to make a function or a model specific to actually
25	allow it to calculate something, a probability, for example,

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1	or to define the user, it's got to be the values or the
2	weights. It can't be the variables.
3	And this is a simplified version of what was
4	in the tutorial. The f of x equals a times x plus b is a
5	template function. By itself, it has, you can't do anything
6	with it to calculate. Google's position would be the a and
7	the b are the parameters.
8	If that is the case, if this is sort of your
9	generic template learning machine before it's ever
10	instantiated with specific values so it's not user specific,
11	you can't calculate anything with that. You can't estimate
12	probabilities with that. Not until you have the values can
13	you perform those calculations.
14	And this just gives an example where A is 3 and
15	B is 2. If those are my parameters for the degree I'm
16	interested in sports and the degree I like cars, and now a
17	document X about cars come in, the system can calculate,
18	estimate the degree that I'm interested in that document.
19	If parameters are the variables, it can't do that.
20	And this is a text from one document or one
21	book at the time of the patents dealing with one particular
22	preferred embodiment of the user model called the multilayer
23	perceptron, and the specification site is here.
24	While any nonlinear function may be used in a
25	user model (for example, a multilayer perceptron), a key

feature is that the parameters are updated based on actual
user reaction.

3	For the updating of the parameters here, again,
4	it teaches its values are weights. This is the equation
5	from this page of the book. You initialize the values and
6	weights, the parameters of the weights to small random
7	values. You then run the initialized version of the
8	learning machine and you end up with some estimated
9	probability and you calculate the delta for the difference
10	with what you got versus what you expected. You then take
11	the old weight plus the difference and you get the new
12	weight. And that is how the thing updates and it learns.
13	Again, if these are not values and weights, if
14	they're I'm sort of interested in sports or I like cars a
15	lot, if the parameters aren't the actual values and weights,
16	this doesn't work.
17	And this is just more examples of the same
18	thing. Starting with an initial guess for value W, the
19	stochastic approximation procedure for the parameter, the
20	weight. Again, that was slide 21.
21	This is slide 22. This is from Google's reply
22	brief. Parameters take the form of vectors W. Vectors W
23	are weights. Again, semi-parametric regression. Vectors W
24	are weights.
25	Further, the dependent claims mandate that their

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1	values are weights. This is dependent claim 18 and 49,
2	talking about where the parameters define the user model
3	comprise calculated distances between the user model and
4	user models of users similar to the user.
5	Again, the calculated distance here, they're
6	values, they're weights, they're not other things.
7	The specification supports that parameters
8	are values are weights.
9	Parameters must be tunable. They're continually
10	updated. They estimate a probability. This tunability, the
11	ability to be continually updated, their use to estimate,
12	all again support they're values and weights and not
13	variables as Google suggests.
14	THE COURT: Help me better understand why it's
15	not tunable if I go with Google's construction of parameters.
16	MR. NELSON: Well, if we go back to the equation
17	that had those four steps, that is really what is describing
18	the tuning. You are taking values or weights of how much
19	I'm interested in sports as a mathematical number. And
20	as the system learns more about me, it changes that number
21	based on what it learns. Maybe I'm more interested in
22	sports than I was last month. Maybe I'm less interested in
23	sports than I was last month. If the parameters aren't the
24	numbers, it can't really work that way. There is nothing
25	for it to actually act on.

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1	THE COURT: Why can't it be changing the
2	variables? The variable was I really like sports a lot and
3	now the variable changes to I don't like it so much.
4	MR. NELSON: Well, I don't know how that system
5	would work if it was operating on categories or words
6	without actually being numerical values in there. It
7	really couldn't estimate probabilities because ultimately
8	probabilities are estimated mathematically. So if it's
9	trying to operate on words like that, it can't really tune
10	itself because it's just it would just be phrasing
11	different combinations of words, and the whole concept here
12	is based in mathematics.
13	I'm not sure if that answers your question.
14	THE COURT: Thank you.
15	MR. NELSON: This is just an example that Google
16	cited in the brief for why parameters are not are
17	variables. Well, the indicator variables here in the
18	informative, this is a most preferred embodiment, they're
19	not parameters. They're used to calculate parameters or
20	estimate parameters but they're not parameters.
21	And this table is, on the next column that
22	isn't cited in the briefing, but this shows how the
23	indicator variables are actually used in this most preferred
24	embodiment, and they go calculate the mutual information
25	between the user and the user's interest in the word Bob,

1 and those metrics are then used in this table and you end up 2 with a .16. It's the .16 that is the parameters. These 3 indicator variables that are used as part of the estimation aren't parameters themselves and they're not kept. They're 4 5 just used to calculate to estimate the end product and then they're done. And then it's done. 6 7 The last reason here why -- well, first, let's take a look at their definitions, because their definitions 8 themselves of "estimating parameters" and "parameters" are 9 10 internally inconsistent. 11 They define parameters as variables here that 12 have a value, but then when they estimate them, you would think you could just plug in the word parameter so it would 13 14 be estimating a variable having a value or weight, but that's not what they do. They say estimating a value or 15 16 weight. 17 And this is -- I apologize there is a typo on the bottom here. It should be "s". (Indicating on bottom 18 of slide 26.) 19 20 But if you follow the normal rules of claim 21 construction where if you define a term and then you plug that term into the bigger phrase, the claim should read: 22 23 estimating variables, having a value or weight ... 24 That isn't what they do. And, again, this is 25 another evidence that they're being a little inconsistent

	here
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2	So the second part of the parameters definition
3	is whether they're used to calculate a probability. And I
4	won't spend too much time on this, but one test that I often
5	use in these things to determine whether somebody is trying
6	to read in something from the specification, whether it be
7	functional language or some other stuff, is if you take the
8	individual phrase and then you plug that definition of the
9	individual phrase like we just did in the last slide into
10	the bigger picture, and when you take the individual phrase
11	"parameter" here and plug it into the claim language, you
12	start to get, when you get into defendant's construction, a
13	lot of complication.
14	Plaintiff's construction is, estimating the
15	values or weights of the learning machine, wherein the

16 values or weights define user model ... and it goes on.

Defendant's construction, on the other hand, is, first of all, estimating a value or weight of each of the variables that are used by the learning machine to calculate a probability.

21 Wherein, now we have rely on variables having a 22 value or weight that are used by the learning machine to 23 calculate a probability, define a user model specific to the 24 user wherein the variables having the value or weight that 25 are used by the learning machine to calculate a probability

2	That doesn't need to be there. The
3	calculated the claim is clear, as we'll show here in
4	1E, the claim language says, wherein the probability is
5	estimated by applying the identified properties of the
6	document to the learning machine.
7	Hooking the calculated probability language to
8	the parameters definition, it's just an extraneous
9	limitation they're trying to read in.
10	So let's talk about learning machines. Learning
11	machines has lots of disputes. I'm only going hit a couple
12	of them in any kind of detail, and the rest of them I'll try
13	to just hit briefly.
14	The first dispute. We say it's a model or
15	function. The defendant says it's a program.
16	The second dispute. Defendant said it contains
17	parameters used to calculate a probability. That is from
18	their parameters definition. We say it's used to make a
19	prediction or intelligent decision.
20	We got criticized heavily for the intelligent
21	decision language. And in preparing for this presentation,
22	I'll get to it, but we can probably live without that
23	language being in there.
24	Whether it improves or whether it attempts to
25	improve. The dispute here is really I'm not really sure

there is one, but to the extent improves means that every time the learning machine runs through that it must get better, we would dispute that.

The goal is that it gets better, and over time 4 5 it gets better, but on any given iteration of it, where you are calculating -- going back to the first slide, where you 6 are calculating a delta wave, and then you add it to the 7 other wave. Sometimes what the user is doing won't help 8 9 the learning machine learn more about it. And so the 10 distinction here is whether it must improve every single 11 time or whether it just has to attempt to improve.

And then the last piece here is they propose that it improves over time with the addition of new data or in their most recent brief, monitored user interactions, and we say it attempts to improve based on past observations or experiences.

And the dispute here is really that the monitored user interactions with data, it's better than the new data definition but it still leaves out some important things that the learning machine acts on. And one of those things is a set of documents associated with the user which I will get to.

23 So let's talk briefly about some of these. The 24 calculate a probability limitation. Again, going back to 25 the example of, are they trying to read in something or not?

	22
1	This is the definition now of (1)(c) when you
2	apply, or actually it's (1)(e), when you apply the learning
3	machine definition. And it says, wherein the probability is
4	estimated by applying the identified properties of the
5	document to the program that contains parameters used to
6	calculate a probability, and wherein the predictive ability
7	of the program improves over time with the addition of new
8	data.
9	Okay. A little clunky but not too bad. But,
10	remember, they're using parameters here. Well, parameters
11	has its own baggage associated with it.
12	So now the claim actually reads, if you follow
13	their construction, wherein the probability is estimated by
14	applying the identified properties of the document to the
15	program that it contains.
16	And this is the parameters definition:
17	variables having a value or weight that are used by the
18	learning machine to calculate a probability.
19	This is the rest of the learning machine. Used
20	to calculate a probability and wherein the predictive
21	ability improves over time with the addition of new data
22	having parameters which also calculate a probability.
23	That is a lot of baggage for claim language that
24	is pretty clear. Wherein the probability is estimated by
25	applying the identified properties of the document to the

1 learning machine.

2	The specification also does not support that you
3	have to have this calculated probability language. Learning
4	machine contains tunable parameters again.
5	It talks about any model that is a learning
6	machine.
7	I'll skip over a couple of these legal slides
8	here.
9	The model or function language. The
10	specification is clear. A learning machine may be a model.
11	While a specific embodiment of the learning machine is
12	discussed below, it is to be understood that any model that
13	is a learning machine is within the scope of the present
14	invention.
15	It is clear, learning machine can be a model.
16	Learning machine can be a function.
17	The user model, with its associated
18	representations, is an implementation of a learning machine.
19	The user model is a function. A learning
20	machine can be a function.
21	Nowhere in any of the asserted claims except for
22	dependent claim 32 or independent claim 32 of the '040
23	patent is the word "program" ever used. It's the only place
24	it appears. There is no rhyme or reason why it should be,
25	why learning machine should be limited to a program in any

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1	of these claims.
2	And, in fact, the use of the word program in
3	some claims strongly suggests that it shouldn't be
4	limited to programs in other claims. I think that is
5	Liebel-Flarsheim, among other cases.
6	So the new data versus monitored user
7	interactions, I'll go over this just quickly. This is the
8	Google brief where they offered to compromise.
9	The problem with that is it reads out, first of
10	all, a set of documents associated with the user. And the
11	reason it reads that out is because it's clear from the
12	claim here. And this is claim element B of the '040
13	claim 1 of the '040 patent. The updated user-specific data
14	file, or the estimated parameter of the learning machine
15	wherein the parameters define the user model specific to the
16	user, and wherein the parameters are estimated in part from
17	the user-specific data files.
18	So what this teaches is that the parameters and
19	the learning machine, it must be estimated in part from the
20	user-specific data files. Okay?
21	Well, what are the user-specific data files?
22	Well, they are the monitored user interactions with data.
23	That's what Google suggests; and we're fine with that part
24	of it; but they're also a set of documents associated with
25	the user. The monitored user interactions wouldn't

1 encompass that.

2	Nor would the monitored user interactions
3	definition encompass world knowledge, which also can be
4	built into the user model, which I will talk about in
5	connection with another element shortly or other uses
6	such as cluster data that the user model uses in some
7	circumstances.
8	So for that reason, although we think monitored
9	user interactions is better, it still is too narrow. We
10	think our past observations and experiences language better
11	capture that.
12	Attempts to improve versus improve, we talked
13	about that. The specification talks about optimizing,
14	again, suggesting, you know, attempts to improve as opposed
15	it must improve every time.
16	The intelligent decision language, we talked
17	about that. And in looking up the definition of predict, we
18	just decided that the prediction was enough even though
19	other sources define learning in the context of intelligent
20	decisions as well.
21	So unique versus specific. That, we talked
22	about earlier. What does it mean to be unique versus
23	specific? Well, this is the user-specific learning machine
24	that we kind of had up before. I got a little bit ahead of
25	myself.

	26
1	So the "user-specific learning machine" is the
2	next term or phrase at issue. What is really at issue
3	there, we talked about what a learning machine actually is.
4	So the definitions here, their definition is it must be a
5	learning machine unique to the user. Ours is our same
6	definition of learning machine but it must be based on past
7	observations or experience specific to the user. And just
8	to adopt Google's shorthand version here, learning machine
9	specific to the user. So this is the debate here is the
10	unique versus specific, and we'll discuss this in connection
11	with the user model.
12	And so the definition of a user model and
13	this is on slide 53 is an implementation of a learning
14	machine updated in part from data specific to the user.
15	That comes out of the claim language.
16	Google's definition is a model unique to the
17	user, that is created and updated by the learning machine
18	and stored in a data structure.
19	So the three disputes: specific versus unique,
20	whether it's an implementation of a learning machine or
21	created and updated by a learning machine, and then whether
22	it's stored in a data structure.
23	We talked about the present invention stuff a
24	lot in the briefs so I'll skip over that.
25	The claim well, so we start with the claims.

	27
1	Well, the claim language talks about specific. User
2	specific, user model specific. It doesn't say unique.
3	Nowhere in the claims is the word unique ever used. Strong
4	evidence that specific shouldn't be unique.
5	The specification repeatedly indicates that the
6	preferred embodiment Personal Web is associated with the
7	user, represents the user, but it doesn't ever say that it
8	is unique to the user:
9	Personal Web stores for each user a user model.
10	User model represents the user's information and
11	product interests.
12	Stores parameters that define the user.
13	Talks about individual user model for user u may
14	be applied to a cluster of users.
15	Again, there is nothing there that says it has
16	to be unique to the user. We talked about this at the
17	start, the hats. The specification with the hats teaches
18	specifically that two users can have the same user model at
19	any given point in time, whether on initialization, whether
20	they're wearing a temporary prototype or temporary profile
21	hat or, I suppose, if two people wanted to run the exact
22	same searches, from the same place, they might end up with
23	the same profile in such an extreme example. But the
24	specification clearly shows that these user models in this
25	context are not unique, meaning the one and only and unlike

1 anybody else all the time.

2	In fact, the specification uses unique only once
3	in the entire specification. And it uses it in this
4	context: The user model represents the user interest in a
5	document independent of any specific user information need.
6	This estimation is unique to each user. In strict
7	mathematical terms, given a user u and a document d, the
8	user model estimates the probability.
9	And so even the usage of unique here is talking
10	about, well, it's making a probability estimate for a user
11	model unique to a user model, not necessarily that it might
12	not be the same estimation if both people are wearing a
13	temporary hat, for example, or a temporary profile. That
14	is the only time the specification uses unique; and, in our
15	view, that does not mean that the user model itself must be
16	individualized and unique and unlike any other model as
17	opposed to associated with.
18	Now, in reality, in our patent most of the
19	models would probably be unique because the parameters which
20	define the user model and the user specific learning machine
21	would be likely quite different for each individual. They
22	just don't have to be.
23	And this is some general dictionary definitions:
24	Specific: having a fixed relationship to;
25	restricted by nature; explicitly set forth; definite;

	29
1	relating to, characterizing, or distinguishing.
2	Right here is likely where Google is going to
3	rely on the unique language, special, distinctive or unique.
4	I don't think that means in the context of this general
5	dictionary that specific equals unique like they say in this
6	context.
7	Definition of specific: being the one and only.
8	I'm sorry. Definition of unique: Being the one and only.
9	2: being without a like or equal.
10	Again, reading the entire specification in the
11	claim language, we certainly believe that it's clear that
12	the unique language that Google is seeking is not the proper
13	construction here. The claim language uses the word
14	"specific" and that is how it should be construed.
15	And implementation of a learning machine versus
16	a learning machine or versus created by a learning machine.
17	This is a little piece of the animation from the tutorial.
18	What is intended to be represented here is this is the user
19	specific data files for this user AB15Z3DI-JS.
20	While the specification shows the learning
21	machine user model here, the user model specific to the user
22	comes in part from this, these user specific data files
23	which are up here. And so here we see the more complicated
24	function from the tutorial that is the user model here,
25	specific to the user because there is the parameters, these

	30
1	values, and so when this things defines a user model, it's
2	not defined by the learning machine, it's obtained by, at
3	least in part, the user specific data files. And there you
4	see them kind of dumping into the funnel whatever the
5	calculations that are done to then update the parameters of
6	the user-specific learning machine or of the user model
7	specific to the user. New parameters, new values. New
8	values here, new parameters. And, again, that demonstrates
9	in our view that the updating the user model is not
10	the updating is not being done by the learning machine which
11	is what Google suggests.
12	And the specification also teaches that the
13	user model, with its associated representations, is an
14	implementation of a learning machine. And the
15	specification I'll go through the next set of slides 67
16	through about 71. But you mentioned 72 earlier, and all the
17	text describing figure 2 and that embodiment talks about the
18	user model being the thing that estimates the probabilities,
19	and that is the learning machine in the claims.
20	First, it's initialized. Then it's updating the
21	parameters. That is what we just saw with the slide with
22	the funnel.
23	Finally, Personal Web 12 applies the user model,
24	to unseen documents, which are first analyzed in step 36, to
25	determine the user's interest in the document, based on step

	31
1	38.
2	That is the analyzing block of figure 2 which is
3	sending the documents to the user model specific to the user
4	to estimate a probability.
5	The user model represents the user interest in
6	the document independent of information need.
7	We talked about this estimation is unique to
8	each user. In strict mathematical terms, given a user u and
9	a document d, the user model estimates the probability
10	P(u/d).
11	If a user model is not an implementation of a
12	learning machine specific to the user, that functionality
13	just doesn't really work. So this is another reason why
14	PUM's definition should be adopted.
15	And this is figure 2, just kind of go through
16	the steps that we talked about.
17	I'm going to skip over. This is what Google
18	will likely rely on as a counterargument and if we have to
19	address this in rebuttal, we will.
20	So it's stored in a data structure. The
21	specification doesn't require how this thing is stored. It
22	may be stored in a data structure. We don't dispute that.
23	Specification says it's a function that may be implemented
24	with any desired data structure, and that is not tied to any
25	specific structure or representation.

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1	"Or representation" language here suggests other
2	types of representations, but even if you read it as Google
3	suggests, this is still one preferred embodiment, and the
4	claim shouldn't be limited to that preferred embodiment
5	based on, you know, there is no disclaimers here that it
6	must be a data structure. There is nothing to rely on the
7	defendants or the plaintiff has done, I should say, to limit
8	the storage mechanism here. This is just an attempt to read
9	something in, how the thing is stored as opposed to what it
10	is and should be rejected.
11	So let's talk briefly about user and
12	user-specific data files in particular.
13	User is used throughout the claims. The
14	definitions of the parties, the first part we're in
15	agreement on. The second part is where the dispute arises.
16	The person here in an electronic system isn't inside the
17	computer. They're represented by something. And we call
18	that something an electronic tag or identifier. We could
19	have called it a cookie, too, or other things, but someone
20	of ordinary skill in the art in 1999 would understand that
21	in an electronic system, a person isn't in there, they're
22	represented by some electronic identifier to the system and
23	that is all our definition is trying to suggest here.
24	And we start out, the claims refer to the user u
25	in a couple different places. And the user u is defined as

1 the user and his or her associated representation are 2 denoted with u. In our view, user u there, which defendant's antecedent basis argument argues is the same as 3 user, includes the identifier. 4 5 THE COURT: Well, they argue that that language actually undercuts you because it distinguishes between user 6 7 and the associated representation. Therefore, the user isn't the associated representation. 8 9 MR. NELSON: Yes. I can understand that point 10 of view, but I don't think that point of view is correct. 11 It says the user and the associated representation, meaning 12 that it's the user u here is both. 13 THE COURT: So then what about if we construed 14 it as this user is a user or the associated representation? That is, it's a person sometimes and other times it's an 15 16 associated representation. 17 MR. NELSON: I think that would be fine, as 18 long as the associated representation language is in there. 19 Because what we expect they're trying to do and what we 20 learned from their deposition testimony is that they're 21 going to take a position that they don't personalize to a user, they personalize to a cookie. And, you know, I don't 22 23 know the last time a cookie had a credit card to buy 24 something from an ad, for example, but that is why this is a 25 valuable thing for them. So if you construe this as the

1 user is a person or a tag or an identifier, the plaintiff is 2 fine with that. 3 THE COURT: Now, not only are you fine with it, isn't that a fairer reading of this patent because your 4 5 patent talks about users writing e-mail, reading e-mail, playing games; you know, when was the last time a computer 6 7 wrote an e-mail all on its own? MR. NELSON: I'm not sure I can answer that if 8 9 it was in 1999 or not. But I see your point, your Honor. 10 And I guess that even in the context that you just gave, 11 the user writing e-mail, what is seen inside the computer 12 isn't the person writing the e-mail, it's some electronic identifier associated with the person that is sending the 13 14 e-mail out and is recognized on the other end as this person's electronic ID, and the system then translates that 15 16 into a person's ID. 17 So I think either definition, PUM's definition 18 or the alternate definition you proposed is an accurate way to describe this. 19 20 And this is a document just from Google that I 21 put up there just to show that even Google agrees that one of ordinary skill in the art understands that users are 22 23 electronic identifiers. 24 User-Based Ads Quality. The user is defined as 25 a prefid or pref-ID cookie.

	35
1	So let's talk about user specific data files.
2	May I ask how much time I have left?
3	THE COURT: You started at 10 after 10:00, so
4	
5	MR. NELSON: So I'd better hurry.
6	User specific data files. This is, the dispute
7	here is data files. Whether they're files and whether they
8	must be unique. We already talked about unique, so let's
9	talk about files.
10	Well, the claim specifically defines what user
11	specific data files are. It says the user specific data
12	files and I'm on slide 91 here they comprise the
13	monitored user interactions with the data and a set of
14	documents associated with the user.
15	This is a recent Federal Circuit case, and you
16	can take this holding and you could put in our claim
17	language and it's verbatim:
18	The "controlling language could hardly be
19	clearer", where the claim recites "a user-specific data
20	files comprising the monitored user interactions with data
21	and a set of documents associated with user." The claim
22	language is unambiguously defined as what comes after the
23	comprising.
24	That's the end of the inquiry, your Honor, as
25	far as we're concerned.

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1	THE COURT: Does comprising always constitute a
2	definitional term? You know, whenever a patentee uses
3	comprising in a specification, they're being their own
4	lexicographer?
5	MR. NELSON: I wouldn't say always, but I think
6	where it's used specific in claim language like this, it
7	does.
8	And there are other cases cited in our brief as
9	well that show that the courts, when the word comprising
10	is used as part of a claim element internally, and it says
11	element X comprises elements Y and Z, that that is
12	definitional language.
13	And the specification is consistent with that.
14	It talks about a set of documents; and here it uses end
15	products associated with the user as well, being that
16	comprising is open-ended. So it defines at least well,
17	the claim in this case tells exactly what it is. The
18	specification contemplates that it could be more but it
19	is at least what the claim says it is.
20	Now I'm going to just talk about this real
21	briefly and then I will skip over to the next element.
22	The dispute here on monitored user interactions
23	with data, we don't quite understand what defendant is going
24	to contend they are. The collected information piece that
25	we have here is in there to get the idea that what is going
on here is the user is out there and doing stuff on the web, and that there is information, there is data that is collected, and that data is then what goes into the table like you saw above the funnel. That is data. That is collected information.

And so what we want to be clear is that what is 6 7 going on is that the data is collected. It's not you've just got the monitored user interactions with data. What 8 the monitor user interactions mean here is the collected 9 10 information about what the user did in step A, the 11 transparently monitoring step, is generating data, and 12 what those, what that data is, is the monitored user interactions. That is really where the dispute arises. 13 And we think that is clear from the claims. 14

15 Set of documents associated with the user. The 16 only dispute here is document. This is both parties 17 definition of document and so I'll just skip to that.

So document, text or any type of media versusany type of electronic file.

The real dispute here is whether or not the document storage mechanism in Google's case, whether the document should be defined by how it is stored, basically. Google says it's an electronic file. We agree it's electronic. It's an electronic system. But it doesn't have to be a file.

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1	In 1999, it was well known that you could have
2	dynamically generated web pages, dynamically generated
3	search results. Their file definition would rule that out,
4	and that is what we think is wrong.
5	The spec defines it as not just text but any
6	type of media. It doesn't say that it has to be files.
7	THE COURT: Does it include always lexicographer
8	language when I see it in a patent?
9	MR. NELSON: Not necessarily. I would say this
10	is strong evidence that the term "document" should be
11	construed to be text or any kind of media, at least. And
12	that is the position we took in the brief. It doesn't say,
13	per se, the document is. I'll agree with that. But I
14	think, looking at the remainder of the specification, it's
15	clear that the document shouldn't be confined to how it is
16	stored.
17	The first evidence of that is that the user in
18	the initialization phase may supply documents not included
19	in browser files. They may not be files.
20	But, more importantly, in other aspects here, it
21	talks about search results that are visited following a
22	search query, websites that the user visits independently as
23	being examples of positive interactions with documents here.
24	Well, search results that are viewed in
25	websites, at this time it was well understood that you could

dynamically generate these types of activities, and that is what the dispute here is really about. We think that the fact that these things are included in here would be enough to teach one of ordinary skill in the art, and one of ordinary skill in the art would understand that the term "document" here encompasses more than stored files.

7 And this is another cite from the specification on slide 109, talking about sending the user model to 8 9 third-party websites, which then evaluate their dynamic 10 content, like cnn.com, for example. They very often are 11 changing content against the user model to decide whether to 12 push information back to the user based on personalization, and those types of systems operate on dynamically generated 13 information. 14

15 I'll skip over this. This is just the figure 16 that they cite. This talks about how documents are parsed. 17 It doesn't say they must be stored as files.

Unseen document, I want to spend a little more time on. The dispute here is whether an unseen document must be seen by -- must be unseen by the user or must be unseen by anybody ever. And the specification is clear that the unseen document here needs only to be unseen by the user, and it doesn't need to be unseen by everybody.

24The claim language starts making that clear25right from the front. It talks about a user. It doesn't

talk about this claim being applied to multiple users here, 1 2 the documents that are unseen here; thus, the whole claim is in the context of a user. 3 The claim 7 talks specifically about, wherein 4 5 the identified properties of the document d comprise a user independent property selected from the group consisting of. 6 7 And then I, J and K of slide 116 here all talk about other users having seen the document d. 8 9 Now it's interesting because defendants 10 antecedent basis argument again suggests that document d is 11 the same document, no matter what. Well, in this case, an 12 unseen document would definitely be seen by other users and their definition can't be right. 13 14 The specification contemplates also, I talked about world knowledge earlier. That world knowledge is 15 incorporated into the user model. 16 17 Well, what is world knowledge? Well, it's a lot 18 of things but one things it includes is the number of users 19 who have accessed the document, whether they saved it to a 20 favorites list, whether they previously have been interested 21 in the document, all of which tells you they've seen it before. 22 23 Again, it's unseen by the user, not by anybody. 24 The specification language also talks about 25 unseen documents in the context of the user, it's single,

not everybody.

2	I want to talk briefly about I mean the
3	argument that defendants really make here is that somehow in
4	addressing the Gerace reference in the prosecution history
5	that PUM has disclaimed the idea that the document must be
6	unseen by the user and somehow it must somehow disclaim it
7	so it requires, the only possible construction is the
8	document must have been unseen by any user, and that isn't,
9	that isn't at all what Gerace was about.
10	May I approach the board here real quickly?
11	THE COURT: You may.
12	MR. NELSON: So what the Gerace system was, was
13	the Gerace system was a system that identified the user
14	interest in a fixed set of categories by finding similar
15	users among the existing set of users within those types of
16	categories.
17	So you had a group of other people, let's take
18	the example, that are Philadelphia Eagles fans. That is
19	your category. And that group is shown a bunch of ads, and
20	those ads are given scores; and for other users that would
21	fit into the Philadelphia Eagles interest category, the
22	system in Gerace knows we're going to serve these ads out to
23	this Philadelphia Eagles user because all the other users
24	that are Philadelphia Eagles fans, they like these ads, too.
25	Well, in Gerace, it makes sense that an ad that

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1	had never been seen or only had been seen by a couple of
2	people, really, there wasn't enough data on it to make a
3	prediction because the group of users that were the
4	Philadelphia Eagles fans, the category of people that were
5	Philadelphia fans here, they wouldn't have enough data for
6	Gerace to make the prediction. So the predictions in Gerace
7	are based on other people's views, other people's interests
8	that the system deemed were similar to the users.
9	The system in this patent is completely
10	different. The system in this patent is based on the
11	information learned about the user and herself.
12	And so the user doesn't care whether anybody
13	else has seen the document, or whether they have. The user
14	cares about the system cares about what this user and
15	whether this user would be interested in the document. It's
16	really an apples-and-oranges system.
17	And so the language here is talking about: In
18	other words, it is not taught, nor is it suggested how the
19	first set of users or the first user is presented with an
20	unseen document or an unseen ad in Gerace.
21	It's apples an oranges because the system here
22	can deal with that. That is what the whole thing is about.
23	It's about learning about the person in the form of the
24	specific learning machine, or the specific user model.
25	Gerace doesn't deal with that issue so it's different, as

1 the applicant suggested.

2	But there is no disclaimer here or anything else
3	that would limit the meaning of unseen document to a
4	document that had not been seen by anybody. And that is why
5	in the briefs, your Honor, we said that all the cases they
6	cite, they weren't even applicable.
7	THE COURT: Well, I think are saying this but
8	try to help me understand it this way. Under your
9	construction of unseen document, how is your invention and
10	improvement over Gerace of what was in the prior art?
11	MR. NELSON: Well, our invention is one way
12	that it is improvement over what was in the Gerace and what
13	was in the prior art is our invention was built upon what
14	the system learns about the individual. And so the user
15	model is specific to the user having the parameters, as I
16	said earlier, that are my values. How interested am I in
17	the Philadelphia Eagles? The Gerace system doesn't care how
18	interested I am in the Philadelphia Eagles. All it cares
19	about is whether I fit into a predefined category and what
20	ads other users that fit into that predefined category like.
21	That's it.

And so our system is a great improvement over Gerace because it models on what our users actually -- what it learns about our users. So our system, it can deal with a document not seen by anybody, it can deal with a document

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1	not seen by one person, it can deal with a document seen by
2	a hundred million people. The unseen document is just
3	unseen with respect to us.
4	All right. We'll go through the "probability"
5	terms real quickly here. The degree of belief or likelihood
6	versus percentage chance is what the dispute is.
7	To really put this dispute into context, you
8	need to sort of understand the two approaches to probability.
9	There is a Bayesian approach, which it's undisputed the
10	patents are about and a frequentist approach. And this is
11	Mr. Konig's testimony where he talks about the frequentist
12	approach here and the Bayesian approach, and that is on
13	slide 128.
14	The patents clearly are the frequentist
15	approach. Nobody disputes that. And for the specification,
16	on the frequentist approach, it's also estimating a probability
17	which suggests less preciseness than a percentage chance to
18	begin with.
19	But if you look at the applicable text, again,
20	specification talks about estimating probabilities, which
21	is consistent with Bayesian versus calculating, which is
22	another dispute that I will skip over. Looking at
23	statistics most of the time, learning machines and Bayesian
24	statistics express probabilities as beliefs, as likelihoods,
25	as approximations.

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1	You then want to find a way of expressing your
2	beliefs about data, taking into account both your prior
3	beliefs and the data but it will turn out that if we can
4	collect enough data, then our posterior beliefs will usually
5	become very close.
6	The Role of the Learning Machine.
7	The problem encountered by the learning machine
8	is to select a function from a set of functions that best
9	approximates the system's response.
10	The quality of the approximation produced by the
11	learning machine is measured by the loss or discrepancy
12	between the output produced at a given point X. That is
13	kind of going back to the figure with the equation, the
14	three pieces pulled out before.
15	Again, this talks about approximations, about
16	estimations, not strict percentage chances that are
17	frequentist approaches. Tellingly, the specification
18	neither the specification nor the claims ever uses the
19	term percentage chance. And although the claim, the
20	specification does talk about calculating and estimating
21	probabilities, for the most part the specification uses
22	estimating and the claims consistently, and only, use
23	estimating.
24	Some general dictionary definitions. And this
25	is the one point I want to make here because this likely

what the defendants will rely on, what they relied on in
 their briefs.

General dictionaries here support our meaning, 3 but they also do support defendant's meaning. And it talks 4 about in both the statistics and the math context here in 5 a general dictionary being the frequentist approach, the 6 7 percentage approach. But what I tried to show here is that this is complicated stuff and a general dictionary for the 8 9 purposes here just doesn't cut it like a book about actually 10 learning machines and data.

The ones that talk about learning machines and data specifically speak about probabilities in the context of likelihoods or beliefs which is more consistent with our definition -- which is consistent with our definition.

And this is just a slide about the frequentist approach and what it's generally applicable to: coin flips, dice, things that you have long runs that you can basically estimate odds for, not for how interested are you in the Philadelphia Eagles versus how interested am I in the Philadelphia Eagles.

21 Approximating or roughly calculating. We'll22 skip through that.

Posterior probability. The definition here, the dispute here is they really have a new knowledge piece. We dispute that. The claim language is clear. I'll skip

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1	through that as well other than just point to the
2	specification and say here, posterior probability is
3	mentioned specifically.
4	Last piece I want to address here is
5	indefiniteness. There are two, three phrases they claim are
6	indefinite. The one I want to focus is on documents of
7	interest to the user, and documents not of interest to the
8	user.
9	The legal standard is very high.
10	The defendants presented no declarations or
11	anything that says someone of skill in the art can't figure
12	this out.
13	I want to address their argument really head on
14	because their argument is based on the <u>Datamize</u> case. And,
15	Datamize, as your Honor might remember, the phrase was
16	"aesthetically and the District Court found that phrase
17	indefinite, and the Federal Circuit upheld that. And the
18	reason the District Court found that indefinite and the
19	Federal Circuit upheld it was because the specification
20	didn't provide any guidance whatsoever as to what
21	aesthetically pleasing actually was.
22	The invention in <u>Datamize</u> was a kiosk that
23	you designed sort of the interface to, and there was a
24	requirement that that interface be aesthetically pleasing.
25	So the specification this is slide 153.

1	This is a portion of the patent in suit in <u>Datamize</u> . The
2	specification doesn't provide much guidance as to how to
3	interpret what aesthetically pleasing is or not. It just
4	says, well, you do it by taking into account the considered
5	opinions of aesthetic design specialists, database specialists,
6	academic studies on public access kiosk systems, user
7	preferences and some other stuff. There isn't a lot of
8	guidance there that somebody designing a system could
9	objectively look at and find out what is aesthetically
10	pleasing and what isn't.
11	Our situation is completely different. The
12	specification does provide objective guidance here as to
13	what is or is not a document of interest to the user.
14	Specifically, the specification says, search results that
15	are visited following a search are documents of interest.
16	Documents saved in the user favorites or bookmarks.
17	Websites that the user visits independently of search
18	queries.
19	Negative examples are documents that are not of
20	interest, search results that are ignored although they
21	appear at the top of the search result, deleted bookmarks,
22	and ignored pushed news, for example. All of those are
23	objective measures that one of ordinary skill in the art or
24	would teach one of ordinary skill in the art what was or was
25	not of interest to the user according to this system.

1 The specification doesn't stop there. It talks 2 about degrees of interest. And in looking at the 3 interaction type -- oops -- looking at the degree of interest, whether it was positive or negative. For example, 4 5 whether it was saved in the bookmarks file. How long the user spent viewing it. Whether the user followed links in 6 7 the document. 8 Again, these are objective measures. In 1999, 9 there was certainly data out there that said, well, if a 10 click is this amount of time, it's a good click. If it's 11 less than that amount of time, it's a bad click. How many 12 Did they bookmark it? Did they follow links? bookmarks? 13 All these are objective things that someone of 14 ordinary skill in the art would look at and say, okay, I know what is of interest or what is not of interested based 15 16 on the guidance. 17 THE COURT: If the claim term were interesting 18 as opposed to of interest to the user, do you think that might be subjective and, therefore, ambiguous? 19 20 MR. NELSON: I think it could be. I mean I 21 think certainly what our view is what they're trying to do is they're trying to read this subjectivity into the claim, 22 23 and the system here is designed, as computer systems must 24 be, to operate in an objective fashion. It lists objective 25 measures of what would be of interest. If it did require

this must be interesting to the user, that is probably a
little bit closer call because what is interesting to the
user might read the users into it a little bit more, but I
think still there is enough guidance here as to what would
be interesting or what would not be interesting to the user
based on the objective metrics that are in the specification.

And the specification doesn't stop there either. It provides a method and teaches that you can have any grade between 0 and 1. Another example of something that would be of interest, a website that the user accesses at a frequency greater than a predetermined threshold.

All of these things would teach someone of skill in the art what it actually means to be of interest or not of interest to the user. And for those reasons, we think that this claim should not be found indefinite in any way, shape or form.

17 THE COURT: Is that a legal issue I need to 18 reach now on Markman?

MR. NELSON: In our briefs, your Honor, we took the position that it wasn't really a legal issue that you needed to reach now. We think if you want to rule that it is definite, we certainly wouldn't object to that, but if your Honor wants to hold that open until a later time, you know, that is obviously your Honor's decision.

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And this is the Vikase case that I cited in the

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1	briefs. That is somewhat analogous. The term there was no
2	measurable losses, and the losses included loss of taste and
3	flavor, and the District Court in the Northern District of
4	Illinois included there might be some subjective aspects to
5	that but the claim was sufficiently definite.
6	And the last term here is, user interest or
7	information derived from the user model. Other than to
8	argue the claim is indefinite, the defendants presented no
9	evidence on this at all.
10	The specification here on slide 162 talks about
11	it a little bit. There is just no basis at all for holding
12	this phrase indefinite. It's clear on the claim language
13	what it means, and there is nothing in the briefs that have
14	been offered otherwise.
15	And with that, I will turn it over to my
16	colleague, Jennifer Bennett.
17	THE COURT: That's fine.
18	MR. NELSON: Thank you, your Honor.
19	MS. BENNETT: Good morning, your Honor. I'm
20	Jennifer Bennett, counsel for plaintiff, Personalized User
21	Model. I'm going to walk you through the presenting order
22	of steps and antecedent basis disputes.
23	First, I will again the presenting dispute.
24	The terms "to present" or "presenting" are found
25	in claims 1, 21, 23 and 24 of the '276 patent. Note they

are not found anywhere in the '040 patent. 1 2 Plaintiff's proposed construction of present or 3 presenting is to provide or make available or presenting or making available, whereas defendant's proposed construction 4 of the terms present/presenting is to display or displaying. 5 If Google is successful with its construction of 6 7 presenting as displaying, presenting could be interpreted to be done on the user side, and defendant might try to argue 8 9 this creates a joint infringement argument. The 10 specification is clear, however, that presenting is done on the server side. 11 12 To illustrate the dispute, let's consider the example of a user entering a search query. Upon receipt of 13 14 the search query by the system, the system could present or make available potentially thousands or even more search 15 results but only a subset of these results, for example, 10, 16 17 might actually be displayed or shown to the user on his or her browser. 18 19 As I will explain, the primary dispute here is 20 basically whether presenting means displaying. 21 Defendant's proposed construction should be rejected at least because it contradicts basic principles of 22 23 claim differentiation. It is not supported by the claim 24 language or the specification and it is not consistent with

the plain and ordinary meaning of present.

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1	First, the claim distinguishes between
2	presenting and displaying.
3	Independent claim 23 reads, computer implemented
4	method for providing personalized information services to a
5	user, the method comprising, among other things, presenting
6	said selected collected documents to said user.
7	Dependent claim 24, depending on claim 23,
8	further provides, wherein presenting said selected collected
9	documents to said user comprises displaying said selected
10	collected documents to said user on a Personal Web page
11	associated with the user.
12	The doctrine of claim differentiation, which the
13	Court is familiar with, therefore, requires that the words
14	"presenting" and "displaying" have different meanings.
15	The specification further distinguishes between
16	presenting and displaying. Presenting is used throughout
17	the specification, including, in the example shown here on
18	this slide, to convey a broad concept of presenting as to
19	provide or make available.
20	Displaying, on the other hand, is used
21	throughout the specification to describe a subset or narrow
22	set of situations in which results, for example, are shown
23	to the user on his or her browser.
24	To illustrate this distinction, let's look at
25	column 29, lines 14 through 17 of the specification. The

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1	passage recites, the personal related pages application
2	locates pages related to a viewed page. Upon the user's
3	request (for example, by clicking a button with a mouse
4	pointer), the related pages are displayed.
5	This indicates that the server presents pages
6	when they are located, but it is not until after the user's
7	request that the pages are actually displayed or shown to
8	the user. Therefore, the differing usages of presenting and
9	displaying in the specification is strong evidence that
10	presenting is different from displaying.
11	Now I'm going to walk through the order of steps
12	and antecedent basis disputes which run throughout the
13	disputes in both the '040 and the '276 patents.
14	Beginning with the order of steps dispute.
15	Defendant is essentially arguing that the steps
16	must be performed in order, whereas plaintiff proposes that
17	no order of steps is required with a few exceptions that are
18	explained in plaintiff's briefs and one in particular which
19	I will discuss in more detail a little later.
20	So the dispute here is whether the claim should
21	be construed to require that the steps of the claims be
22	performed in a specific order. The presumption is that
23	there is no order. Unless the steps of the method actually
24	recite an order, the steps are not ordinarily construed to
25	require one.

The Federal Circuit has articulated a test to 1 2 help determine whether steps which do not recite an order must nevertheless be performed in order. The test is to 3 look at the logic and grammar of the claims as well as the 4 specification to determine whether it directly or implicitly 5 requires such a narrow construction. 6 7 Here, the claims of the patents in suit clearly do not recite an order of steps. Further, although figure 2 8 9 may suggest at first glance a sequence of steps, the 10 specification in fact teaches away from the order of steps. Your Honor asked earlier whether figure 2 was a 11 12 good representation of the '276 claim. I would suggest that 13 actually figure 19 is a better representation of what is 14 claimed in the '276 patent. This figure demonstrates that the steps of claim 1 of the '276 patent do not need to occur 15 16 in order. 17 For example, the user query in blue corresponds 18 to receiving a search query from the user.

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Locate search results in purple corresponds toretrieving a plurality of documents.

Evaluate results with user model corresponds with identifying properties of the retried documents. Monitor user reaction in yellow jumps up to transparently monitoring user interactions in the top of claim 1.

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1	Parse and analyze the documents corresponds to
2	analyzing the monitored data. And,
3	Update user model in green corresponds with
4	estimating parameters of a user-specific learning machine.
5	It's also worth noting that these steps can
6	occur in parallel. For example, the system could monitor
7	the user interactions with data while the system is updating
8	the user model and also while the system is using that
9	information to estimate probabilities.
10	Now let's look back at figure 2. Figure 2
11	further demonstrates that the steps can be performed in a
12	repeating nonconsecutive or overlapping manner.
13	For example, the system could analyze the
14	documents, analyze the documents again, monitor user
15	interactions, monitor more user interactions, update the
16	user model, monitor additional user interactions, update
17	the user model again, then estimate the user interest in
18	documents, followed by providing the personalized service
19	to the user.
20	These steps could be performed, as I explained,
21	in a repeating or overlapping manner but this sequence could
22	also be performed without another cycle of updating the
23	user's specific data files or user model of steps 32 and 34.
24	The specification states, for example, it is not
25	feasible to update the user model after every newly viewed

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1	document or search, and also states that applying the
2	initialization process for each update is inefficient.
3	The one exception that I think is worth
4	discussing here is, defendant has criticized it in its
5	responsive brief, is the first part of element F of the '276
6	patent.
7	The first part of element F of the '276 patent
8	recites, identifying properties of the retrieved document.
9	Like analyzing the document d step in the '040 patent, this
10	step can happen at any time. Once the documents are
11	retrieved in response to a search query, these properties
12	are then used to estimate a probability of the document that
13	would be of interest to the user. To the extent Google is
14	trying to suggest the properties must be identified each
15	time or reanalyzed each time the documents are retrieved in
16	response to a search query, Google is wrong.
17	Lastly, defendant confuses antecedent basis with
18	a grammatical requirement that the claims must be performed
19	in a specific order. Antecedent basis, however, does not
20	compel an order of steps.
21	The final dispute I'm going to dispute is
22	antecedent basis which also runs throughout the independent
23	claims of the '040 and '276 patents.
24	Defendant is basically using antecedent basis as
25	another way to impose an order of steps. Plaintiff proposes

no construction is necessary since the claims as written make perfect sense. Defendant proposes that certain terms within the claims must always refer to the same thing. The dispute here, therefore, is whether or not the terms must be construed so that the terms and phrases must always refer to the same thing.

Defendant does not contest that antecedent basis exists for these terms, but if the claims are not read the way the defendant proposes, only then antecedent basis would not exist. Antecedent basis does exist, however, without having to read the terms and phrases as defendant proposes.

12 For example, let's look at claim 1, element d of 13 Step d introduces a document d. the '040 patent. Step e 14 introduces an unseen document d which represents a subset of document d. Step d then later refers to the document. 15 Step 16 E's reference to the document d does not necessarily refer 17 to the same document d that is described in step d because 18 not all of the documents in step d would have been unseen by the user. 19

The use of an indefinite article such as "a" or "an" normally introduces a new claim element as opposed to referring back to a previously introduced element, which is true for the terms here.

Thank you, your Honor.

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THE COURT: Thank you. You have about

1 14 minutes on your rebuttal. 2 MR. NELSON: Thank you. 3 MS. BENNETT: Thank you. MR. HORWITZ: Your Honor, one thing I told 4 5 Mr. Perlson. I want to make sure it's still the case. Since we are not going back and forth, since there is no 6 7 burden here, he will get a chance to get up again if he reserves some time for response; is that correct? 8 9 THE COURT: That is correct. I was going to 10 point that out but thank you. You beat me to it. 11 (Binders passed forward.) 12 MR. PERLSON: Good morning, your Honor. 13 THE COURT: Good morning. 14 MR. PERLSON: Your Honor, I just wanted to run 15 right into the claims here because we already got some 16 background, and I know that both parties had submitted 17 tutorials. The first claim term that I would like to 18 address is, user model specific to the user. 19 20 Generally, we'll be going in somewhat of a 21 similar order as plaintiff. I think that as we did in the brief, rather than starting with the parameters, we've gone 22 23 right to the user model learning machine terms, and, in 24 particular, the first term, really the dispute we're going 25 to discuss, is what it means to be specific to the user.

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1	And I think that really is one of the critical issues here.
2	So, well, first of all, as to user model
3	specific to the user, there are a few disputes. One is what
4	it means to be specific to the user.
5	Google says that it's the user model that is
6	specific to the user, and PUM seems to admit it is specific
7	to the user but provides a construction which actually
8	avoids that very result. And the same dispute is with
9	user-specific learning machine and user-specific data file.
10	And then there is also dispute of just what this user model
11	is.
12	So first in talking about what it means to be
13	specific to the user, we look obviously first to the claims.
14	Here, the whole claim is talking about this personalization
15	service that is provided to a user, the user. It's
16	throughout the claims. And then in 1-C, it says that you
17	are estimating parameters of a learning machine wherein the
18	parameters define a user model specific to the user.
19	And what is key is that each individual user has
20	their own user model. And this is really let me jump to
21	the spec first because I think it's useful. Repeatedly, it
22	says that there is a user model for each user. And it says
23	that in the present invention.
24	Plaintiff skipped over that point, but it is an
25	important point. And the recent <u>Akamai</u> case shows just how

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1	important it is, the present invention language here. But
2	it's not just in the description of the present invention
3	that it says for each user, it says it again and again and
4	again.
5	And this really is the crux of the dispute.
6	What our construction provides is that each individual user
7	has their own user model. I have a user model. You have a
8	user model. Other people, they each have their own user
9	model.
10	And that is consistent with the common
11	definition of "specific." This is on slide 6, jumping back.
12	The definition that plaintiff provides or the
13	dictionary, they provide, says restricted by nature to a
14	particular individual. We have a definition that does use
15	the word unique but then also says, concerned particularly
16	with the subject specified, and also, intended for, applying
17	to, or acting to a particular thing. So it's about the
18	user. It's specific to the user.
19	And plaintiff, during the presentation, never
20	really directly disputed that point. It's not entirely clear
21	whether they conceptually disagree with that. Certainly,
22	their construction seems to suggest they do, but never once
23	during the presentation or in the briefs did plaintiff ever
24	really rebut this point that each user has their own user
25	model. In fact, many of the arguments that were made

1	suggest strongly that that is in fact the case.
2	Now, what they seem to be saying now, and I
3	don't think this was actually raised in their briefing so
4	we didn't address it, but they seem to be taking issue with
5	the word "unique" in the sense that they're saying that our
6	construction somehow provides that each of the user models
7	are identical to each other such that my user model would be
8	identified to your user model, or somebody else's user
9	model. That is not what we're saying. To the extent that
10	that is what the confusion is, that is not our intent here.
11	THE COURT: So that means and I know this
12	gets somewhat into variables and parameters but if we
13	are both being evaluated for our sports enthusiasm and
14	car enthusiasm, your constructions would allow for that
15	possibility. That is, just because you and I both have the
16	same parameters doesn't mean that your model is not specific
17	to you and my model specific to me.
18	MR. PERLSON: Right. Yes. Definitely. I mean
19	really the only thing we're trying to get at here is we have
20	a user model, you have a user model, and anyone else using
21	the system has a user model.
22	THE COURT: Okay. But then the term is "specific
23	You want to change it, it looks like, to "unique" and it
24	seems to me the difference between specific and unique that
25	you are getting at is that there is something about your's
-	

1 that no one else in the world can have; and if anyone else 2 in the world does have it, then we're not practicing the 3 claim under your construction.

MR. PERLSON: Sure. I understand the point that you are raising, and that is not our intent. And the reason why, frankly, is we think the claim language is pretty clear on its own and throughout the spec that it's specific to the user. That means that it is specific for that user and not for any other user.

10 So another way to maybe put it would be that 11 it's a user model restricted to a particular user, using the 12 language of "specific." And the point is that we're not 13 sharing the same user model. I have a user model, and you 14 have a user model. Each individual user has to have their 15 own user model. Whether what is in the user model is the 16 same or not is not, is not what we're trying to get at.

THE COURT: Let me try it this way. Maybe you will tell me it's irrelevant. But I live in a house and there are other people that live in my house. I have a specific address, but I don't have a unique address. As I understand it, I don't live in a specific house under your construction because I share the house with a number of other people.

24 MR. PERLSON: Well, I guess the problem I'm 25 having with it is that the patent, in the context of the

1 patent, we're talking about a user, it's a one user, so the 2 analogy of the house or multiple people, I think that is 3 what I'm grappling with. If you were in your own apartment and you are living by yourself, I suppose you had an 4 5 address and that apartment would be your apartment, and then somebody else would live in a different apartment. 6 7 That is why I'm struggling with the analogy. 8 But the point we're trying to get at here is it's each individual user has their own user model. 9 Τf 10 there are 10 users, there are 10 user models. And that is 11 really the critical dispute about all of this. 12 Now, whether it's being said through "unique to 13 the user" as we've said it or "restricted to a particular 14 individual" or some construction that requires that to be the case, that is really the critical issue. And I think 15 16 that, you know, I will explain why their construction 17 doesn't get at that. Again, it's not entirely clear whether they 18 19 dispute this, but I think that their construction is 20 designed to avoid the result that each individual user has

21 their own user model. And, you know, they made comments
22 about what we're trying to do for purposes of noninfringement.
23 Well, the reason they're trying to do that is because they
24 don't want to be stuck with a situation where each individual
25 user has to have their own user model because they're

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1	worried about how that affects their infringement case.
2	THE COURT: I'm pretty sure nobody is here out
3	of the goodness of their own hearts; right?
4	MR. PERLSON: Now, one of the points from the
5	specification that was raised was the, I guess the third
6	quote from the spec, which is actually identical to the
7	second. Well, actually, the third.
8	But they cited the first part of the sentence in
9	one of their slides, the user model represents the user
10	interest in a document independent of any specific user
11	information need, and omitted the second portion of it; and
12	then in other slides, they did address it and, it says this
13	estimation is unique to each user. And what that is saying
14	is that this user model represents, you know, your interest
15	in a document and that representation, that estimation is
16	unique to you.
17	THE COURT: Is that, in fact, the only place
18	where the word "unique" appears in the patent?
19	MR. PERLSON: I think that is probably right.
20	Yes.
21	Now, this is addressed in the brief, but I think
22	it is important that, you know, the use of this invention,
23	the present invention is used to describe the user model
24	as being for each individual user, and it's also the only
25	method described. Nowhere in the patent does it describe

1 where a user model specific to the user is shared with 2 multiple users. And I think the recent Akamai case just 3 further shows that that is critical in how you construe the 4 phrase. And to be clear, we think that the "specific to" 5 language on its own shows that our construction is correct 6 7 and that this notion there has to be one user model for each individual user is required by the claim language "specific 8 9 to." So it's not like we are trying to read something in 10 even but it certainly can't be broader than that. 11 THE COURT: What about they try to distinguish 12 Akamai from the specification language that says, you know, 13 the following preferred embodiment of the invention is set 14 forth without any loss or generality, something to that effect. Was that present in Akamai? Is that a reasonable 15 16 distinction? 17 MR. PERLSON: Your Honor, I have a slide ready 18 for that, too. 19 THE COURT: All right. 20 MR. PERLSON: In fact, Akamai squarely rejects 21 that argument. And, in fact, we pointed this out your Honor in our statement of supplemental authority and they just 22 23 ignored it, as they do here. 24 But Akamai said, this court also acknowledges 25 that much of a language describing a string indicating a

1 URL, the invention -- and that was the limitation that was 2 at issue that the Court eventually found was appropriately included in the construction -- occurs within a entitled 3 detailed description of the preferred embodiment. And then 4 5 it notes that figure 4 is referred to as a preferred embodiment. But it goes on to say that the specification as 6 7 a whole makes clear that including the object's original URL is the only method to achieve the claimed association. 8 Then 9 it goes on to say, indeed, it is the only method described. 10 And in the interest of time, I won't, you know, 11 go over this, but our slide 10 kind of talks through how 12 really this is the same issue where here, for each user, having his own user model is the only one described. And 13 14 we would submit the construction that would be broader than that would be inconsistent with even this very recent 15 Federal Circuit authority, in addition to Phillips and its 16 17 progeny. We're not the only ones, your Honor, who agree 18 that each individual user has his own user model. Mr. Konig 19 20 testified, the inventor. 21 I took his deposition and I said: What is the difference between a group model and a user model? 22 23 And he said: Well, group model represents the combined interests of more than one user. And a user model 24 25 attempts to model the one particular user.

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1	And this is exactly our point.
2	Now, the plaintiff says, oh, you should ignore
3	Mr. Konig. He doesn't know anything about the patent. He
4	hasn't read it in 10 years.
5	Well, first of all, he was deposed. He was
6	prepped for two days, and he is here representing the
7	plaintiff. He is an interested party. And, certainly, I
8	think it speaks volumes as to what is going on in the patent
9	and what is really claimed when the inventor and interested
10	party testifies in a manner consistent with how he said it.
11	And we cited a Federal Circuit case, <u>Voice Tech</u> , that says
12	it's appropriate to rely on.
13	THE COURT: That portion of the testimony you
14	are showing me, he doesn't say it's uniquely modeling the
15	particular user.
16	MR. PERLSON: Right. And, again, I don't want
17	to get
18	THE COURT: I understand you are not wedded
19	necessarily to the word "unique" but you are wedded to the
20	concept of if anybody else shares the identical model, then
21	they're not practicing the claims of this patent.
22	MR. PERLSON: Well, let me say it this way. I'm
23	not sure that that is right. If, by coincidence, I have a
24	model that is identical to yours but it's created for both
25	of us, separately, then I think that that would be included.

I'm not saying -- we're not saying that that is out, but, 1 2 you know, as -- I mean, you know, as plaintiff conceded, as a practical matter, that is unlikely to happen. But we're 3 not saying that if, by chance, two people have identical 4 5 models, that there would be no infringement, or that that wouldn't meet that particular element. 6 7 What we're saying is those two people have to have their own model. Whether, by coincidence, they somehow 8 9 have the exact same model is not going to take it out of the 10 claims. 11 THE COURT: You may have a slide on this, but 12 what about the initialization and the trying on a hat portion? MR. PERLSON: I do have a slide on that. 13 14 This is slide 20, your Honor. First of all, initialization is not the subject 15 of the independent claims. If you look at any there, it's 16 17 not a subject. In fact, it's dependent claim 28 talks about initialization. So it's not even in the independent claims. 18 19 The independent claims talk about monitor the 20 user interactions and then you update the user-specific data 21 files. And then you estimate the parameters of the learning machine, and then it talks about the user model is specific 22 23 to the user. 24 Now, if you look at even the language cited 25 in plaintiff's own brief, it says, the initialization is

performed without any user specific information in the situations where there is a prototype user or a hat. This is not a user model that is specific to the user. It's a general user model that might be used by a user but the language that they cite shows that it's not a user model specific to the user.

And, in fact, later on, it goes on to say, when they're talking about hats -- and this is at column 24, 19 to 21 -- it says when you are using a hat, your actions don't affect your own user models. I'm sorry. That they only affect your own user model, not the prototype user model. So there is a distinction. This is completely irrelevant to the user model specific to the user.

14 Now, in going back to plaintiff's construction here, plaintiff admits in their briefs that the model needs 15 to be specific to the user. But if you look at their 16 17 construction, that is not what their construction says. Their construction provides that there is data specific to 18 19 the user. And then, again, they kind of say something 20 similar in their language about "related to" here. They say 21 that -- this is slide 18 -- that PUM views that specific to the user only requires the user model be associated with the 22 23 specific user or relating to the specific user. And they 24 justify this by saying that you just need to use data from 25 the user and then thereby it becomes related to the user.

1 But that is not what the patent is talking 2 about. First of all, there is no support for this notion of 3 related or specific to. I think that they, plaintiff pointed to slide 59 in which they purported to provide 4 5 supports of why this associated with language would work. And I think if you look at that slide, none of those quotes 6 7 that they provide use that language or anything like it. But here is really what is going on here, your 8 9 Honor, is that -- and this is slide 16 -- is that the patent 10 talks about what is on the right. This is the critical 11 issue that I was referring to. That each user gets their 12 own user model. 13 Plaintiff is trying to get the result on the 14 left where you can have multiple users using a generic user model, and when those users are using that user model, it's 15 16 specific to them. That is not what the patent describes, 17 and that really is the critical thing that is here. 18 And part of the reason -- another reason why that can't be right is, in fact, when the patent talks about 19 20 a shared model, it is referring to a group model. And I 21 think that you had asked plaintiff's counsel about that situation. That is what the situation is when there are 22 23 multiple users that are sharing a model. It is a group model, and that is absolutely not a specific model. And 24 25 just because the group model might take some information,

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1	you know, from the user on the left or the user on the right
2	and feed that into the group model, that doesn't make it
3	specific to them. It's specific to the group.
4	So the only way that you have a situation where
5	it's specific to the user is on the right here where each
6	user gets their own user model.
7	So going on to what this user model is, our
8	language provides that it is created and updated by the
9	learning machine. I don't think there is any dispute that
10	that is what it does. The specification, as we show here on
11	slide 21, is perfectly consistent with that.
12	PUM says the claims don't require it, but I
13	actually haven't seen any explanation why that is the case.
14	Instead, they say that there is a definition of the user
15	model.
16	Well, because there is a statement in the
17	specification that the user model with its associated
18	representation is an implementation of a learning machine.
19	Well, that language is all over the place. Is it a user
20	model that has an identity? Is it user model that has a
21	function? And that is not definitional.
22	What the user model is, is a data structure.
23	And there is no dispute that it is stored in a data
24	structure. And, again, here, Mr. Konig agreed that it's
25	stored in a data structure; and what plaintiff is really
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1	trying to achieve here is really going back again to this
2	notion of the user model, the generic user model, they want
3	to say by using data that is specific to the user and
4	applying it to a generic user model that you implemented a
5	user model in a way that is specific to the user, even if
6	the user model itself is not specific to the user. That's
7	not what the patent claims, and the language of their
8	construction is specifically designed to allow them to later
9	argue that, and we would submit that that is completely
10	contrary to the claims and that construction should not be
11	allowed.
12	So the next dispute is user-specific learning
13	machine. Again, the dispute is here as far as what it means
14	to be user specific versus specific to the user, I don't
15	think there is much dispute that the issue here is the same.
16	And, again, you know, we cite to the same evidence here.
17	One thing I will and, again, getting back to
18	this point of plaintiff trying to say that merely by using
19	data of the user makes it, the user model specific to the
20	learning machine specific to the user. The same thing
21	really happens here with learning machine. They're saying
22	that it's the past observations and experiences that are
23	specific to the user, not the learning machine itself, and
24	so they're really trying to accomplish the same result
25	that we just went through as to user model through their

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1	construction of user-specific learning machine.
2	The next dispute is what is this learning
3	machine.
4	We all seem to agree that the learning machine
5	learns and that it makes predictions and then it improves
6	over time, but we have some other disputes.
7	It seems like the intelligent decision dispute
8	is now out, so I won't go over that. But then there is a
9	dispute about new data and past observations and experiences
10	and then whether the learning machine is a program or a
11	model or mathematical function.
12	Now, here again, like with our definition of
13	user model, there really doesn't seem to be any dispute
14	that the learning machine uses parameters and outputs a
15	probability. In fact, much of plaintiff's presentation
16	seems focused on exactly that point, and so there really
17	shouldn't be any dispute there. Again, they have dropped
18	intelligent decision language so I won't go over that.
19	But we do seem to have I'm not sure whether
20	there is a dispute or not, but there was an issue that was
21	raised as to whether our construction requires that with
22	every update, there is an actual "improvement."
23	I don't think that is what our construction
24	requires. Our construction requires that you have to at
25	least attempt to do that. And I don't think there is a

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1	dispute on that either.
2	THE COURT: So you don't have a problem with
3	"attempt to improve" instead of "improve?" I think that is
4	where that dispute came up.
5	MR. PERLSON: Right. I guess the that's
6	right. The program has to at least attempt to improve over
7	time. Yes.
8	THE COURT: Okay. I don't think you have a
9	dispute on that point.
10	MR. PERLSON: Okay. Well, we're making progress.
11	THE COURT: Slowly but surely.
12	MR. PERLSON: Another dispute, which, again, I'm
13	not really sure is a dispute at all, is this observations
14	and experiences language. They say theirs is better than
15	ours. They don't really say why. We tried to come up with
16	a solution because we thought that what they were saying in
17	their briefs was that the learning machine improves from the
18	monitored use interactions with data. So we said, okay,
19	let's define it as that.
20	Apparently, now they're saying, no, that is not
21	good enough because there are all these other things that
22	can improve it, too. Well, but all the things they
23	identified are new data, so I'm not really sure what the
24	dispute is here.
25	THE COURT: I'm not sure that I'm sure either,

but it seemed like they were emphasizing the past observations and experiences, and that something about your construction would read out that past information as a basis for improving going forward.

MR. PERLSON: Well, I don't think that it does 5 I think that the problem with the way that plaintiff's 6 that. language read is that it seemed to suggest that you could 7 just look at something in the past, so let's say you started 8 9 this learning machine on Day One and there was data that 10 happened, you know, before that. And then, you know, 11 10 days later, you updated and you are using the data that 12 happened before Day One but you are not looking at what 13 happened in between, and the data that happened before would 14 be past experiences but what you are using to update is the new data you are getting as you go along. And I think that 15 16 their construction actually allows for you not to actually 17 have to use that new data, and that is really the point that 18 we're trying to make.

There is a dispute about our use of the language of program versus function. I mean the claim says it's computer implemented. It doesn't use the word program, but it's computer implemented. Well, what is implemented in a computer? It's a program.

They say that it's a function. Well, even their own -- this is their own evidence, your Honor, says

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1	that, you know, that the learning machine is capable of
2	implementing functions and that these, you know, functions
3	or algorithms are usually implemented in software.
4	Instead, they replace it with some model
5	language, but, you know, first of all, the claim there
6	is a user model and there is a learning machine. They're
7	different terms, and they shouldn't have the same
8	construction. And this is the prosecution history says
9	this, too, on slide 37.
10	There are three limitations here: A learning
11	machine, parameters, and a user model.
12	Now, they responded to this in their brief and
13	said, well, ours is the same. I mean ours is consistent
14	about this, too.
15	Well, I'm not sure how that is possible mainly
16	because, if you noticed, they defined a user model as an
17	implementation of a learning machine and they defined a
18	learning machine as a model. They're both referring to each
19	other, and they're circular. So to define a learning
20	machine as a model, I would submit, basically is not
21	consistent with the claims and not consistent with the
22	prosecution history.
23	And the next claim term here is "parameters of
24	a user-specific learning machine." I think that this
25	dispute has gotten far more complicated than it really needs

1 to be. And I guess maybe I should just explain it before 2 we get into the slides and it might make things a little 3 clearer.

So, obviously, the constructions that we have are similar; right? And so plaintiff is saying that the parameters are the values or weights themselves. And we're saying, well, there are variables and these variables have values or weights themselves.

9 Then when you look at the estimating phrase, 10 which includes parameters, when you are estimating 11 parameters, what you are doing is you are estimating the 12 values or weights, you know, of the variables and you are coming up with a number. And there doesn't seem to be any 13 14 dispute on that. That is why we construed estimating parameters of a learning machine as we have, and we've 15 16 construed parameters as we have.

17 So I think if we go into talking about this, in 18 the patent, this is slide 42 is a good explanation of what 19 is going on here.

So this row there is, that is the parameter, and it has a weight or value. That is .72. The .72 is a number. It's a value. In and itself, it doesn't really have any sort of significance if it's not attached to the variable. So that is the variable and it's computed. And the learning machine is made up of, has all these variables,

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1	and they're computed through the learning machine.
2	And this is actually perfectly consistent with
3	the extrinsic evidence by the plaintiff. They said
4	parameters are a variable that must be given a specific
5	value. That is exactly what we're saying.
6	If you look at what Mr. Konig said, he said:
7	The way that I think about it, the variable that represents
8	the user interest is this parameter. The value for a
9	specific user is the value of this parameter.
10	I'm sorry. I think I may have misspoke.
11	The value for a specific user is the value for
12	this parameter for a specific user.
13	So there are the parameters and then the
14	parameters have numbers. And when you are estimating the
15	parameter, you are estimating that number. And that is
16	exactly what our construction is intending to provide.
17	And it's interesting because Mr. Konig said
18	it's kind of semantics. And maybe he is right, but I think
19	that the semantic issue is what we were trying to deal with
20	by having the two constructions the way that they are.
21	Because, you know, what we're talking about is estimating
22	parameters, and I think that our construction actually
23	accurately describes what is going on in the specification
24	and what is described and what this invention is really
25	about.

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1	THE COURT: What about the tunability point that
2	was put to me? That it wouldn't work, we couldn't do tuning
3	if I take your construction?
4	MR. PERLSON: I don't understand I heard the
5	argument. I don't understand it because our point is that
6	when you are estimating a parameter of the learning machine,
7	you are estimating the values of the weight. That is tuning.
8	That is what the estimating of the parameters are. You are
9	tuning. That is exactly what our construction allows for.
10	THE COURT: So you agree you would be estimating
11	the weights or the values. You just don't want the Court
12	to tell the jury that the weights or the values are these
13	parameters.
14	MR. PERLSON: Exactly. Exactly. That is why we
15	have these two different constructions. Because I think
16	that this, the way we framed it, is, you know, the clearer
17	way of describing what is going on here.
18	There is a procedure. It's estimating parameters,
19	and our construction says what that is in an accurate way
20	that is consistent with, you know, the intrinsic evidence,
21	extrinsic evidence and the claims, and there really shouldn't
22	be any confusion, and I think ours actually eliminates the
23	confusion.

25 THE COURT: In Mr. Nelson's framework, the level of interest is sports. He terms the variable at the

80 percent or 10 percent, depending on how much we like 1 2 sports, is the weight or measure. In your view, though, 3 how much we like sports isn't the parameter. MR. PERLSON: No. Actually, it's the inverse. 4 5 THE COURT: Okay. MR. PERLSON: So they're the ones defining the 6 7 interest in sports as the number. We're the ones saying that is the variable and the variable has a number. What 8 9 is your interest in sports? There is a number attached to 10 that. That is what is on slide 42. 11 And, you know, it's not the exact sample, 12 obviously, that you just came up, but the parameter is the 13 row and the weight or value of the parameter is .72. That 14 is what we're providing. I think the way you had just suggested to me is flipped from what I think. 15 16 THE COURT: I confused it. Yes. 17 MR. PERLSON: Well, unless your Honor has any 18 further questions on that one, I'll move on. 19 So the next phrase I'll address here is 20 "estimating probability." And, Your Honor, we have included 21 these together because we think that the point as to them is really related. 22 23 There is no real dispute as to what this P(u/d)24 phrase means. We were able to work together and come to 25 some agreement as to what that means.

1 But there is a dispute as to what estimating 2 means and what probability means. And it's interesting 3 because I think that when you heard plaintiff's presentation on parameters, it was all about math. We're talking about 4 5 math, we're doing everything about math; and then, you know, when we're talking about probability, it seems like we're 6 7 now starting to get away from that. And we would submit, 8 your Honor, this is in fact all about math. 9 On slide 47, we show where the specification 10 talks about how the mathematical framework is based on 11 Bayesian statistics. It appears there is no dispute about 12 that. Mr. Konig said the same thing and, you know, as he did today, he admits that in his brief. 13 14 The specification repeatedly talks about calculating probabilities. Sure, it uses the word 15 16 estimating. But if you look, whenever it is talks about 17 estimating, what is actually going on here is calculating. I mean this is about math. These probabilities are 18 19 calculated through math. It's the number, the weights. You use the weights, and you put them together as the patent 20 21 describes and you come up with this number, and you do that by calculating. 22 23 And on slide 48, we cite the Bell Atlantic case,

support really the same points here as that. There is no

and I think that this and other cases such as Akamai would

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1	disclosure in the patent of estimating meaning anything
2	other than calculating.
3	And I think, your Honor, it seems like there
4	wasn't any dispute about that in the parameters. In that
5	context, it seems like plaintiff conceded what you are doing
6	is making calculations as well, and it really has the same
7	meaning here.
8	This is from one of plaintiff's treatises that
9	they cite, it's also cited in the spec, and it refers to
10	learning as the process of estimating. Well, okay. But
11	look at what they're talking about. It's done through math.
12	It's all math.
13	I asked Mr. Konig: When probabilities are
14	estimated in your patent, those probabilities are estimated
15	through mathematical calculations; right?
16	Yes.
17	Now, when we're talking about the probability
18	that last bit was a little bit more about the calculating.
19	We're now moving on to probability, and both parties have
20	submitted dictionary definitions.
21	What we need to do with a dictionary definition,
22	as the Federal Circuit has told us, is that we have to,
23	to the extent they're relied on at all, is to look at
24	definitions that are consistent with the intrinsic evidence.
25	What is consistent with what the patent is talking about

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1	here? The task is not to find the broadest possible
2	dictionary definition. That sort of <u>Texas Digital</u> and its
3	progeny were rejected by Phillips.
4	So where do we go to find what the meaning
5	would be? Well, we went to the American Heritage College
6	Dictionary which talks about statistics and provides a
7	construction that plaintiff appears to concede is consistent
8	with ours; but, you know, it wasn't just us. Plaintiff went
9	to the Oxford English Reference Dictionary.
10	Now, they didn't cite this to you, your Honor.
11	In fact, in their briefs, they gave you like definition one
12	and two and they omitted the definition for math, but that
13	is also consistent with us. And this is the context here.
14	Now, plaintiff tries to make a distinction
15	between this notion of frequency and measurement of belief
16	to say that somehow our construction is inconsistent with
17	that. And I had here a note from one of my associates who
18	helped me kind of frame this issue here and so, hopefully,
19	I'm not messing this math up, but it's really this is a
20	distinction without a difference.
21	It seems like what they're pointing to is the
22	fact that when you are flipping a coin, you have a 50/50
23	chance and there is a 50 percent chance it's going to be
24	heads and a 50 percent chance it's going to be tails, and
25	that is consistent with this frequency notion. And they're

saying that somehow the probability means something else in
 the context of Bayesian statistics.

3 And, here again, there is kind of a semantics here. Bayesian statistics, you take information you know 4 5 and you look at information you have in the past and then you have to apply, you know, some knowledge to it and make 6 7 some, you know, judgments, and that really has nothing to do with the actual computation itself but perhaps how you 8 9 set up the system or set up the parameters and that type of 10 thing. 11 So the percentage will represent your belief. 12 So there is a 70 percent chance that a user will be 13 interested in this document. Now, it's true that that 14 expresses a belief but it's a subset essentially of belief. There are other ways of expressing a belief, too. And I 15 16 think plaintiff talked about them. 17 Like he really likes this car. Well, that is

my belief he likes that car, but that is not probability, and that is really the difference here is that there is kind of -- they're kind of saying, well, probabilities are beliefs so you should define it as a belief.

Well, that is not really accurate. I mean a compact car is a car. That doesn't mean that you define a compact car as a car. It's a compact car. So it's really if you are drawing like a Venn diagram, your Honor, like the

1 probability would be within beliefs. 2 And there also doesn't seem to be any dispute 3 here, your Honor, that what you are doing with the probability is a number. We're coming up with a number, and 4 5 I think in plaintiff's tutorial that they had said it didn't need to be a number. 6 7 Now, there wasn't -- they didn't say what that could possibly be, and the patent certainly doesn't say it, 8 9 and I haven't heard any suggestion that it can be anything 10 other than a number. 11 And I think this slide really demonstrates kind 12 of the distinction between what our construction allows and what we think patent describes and what plaintiff's 13 14 construction describes. I mean the patent is talking about It's using this computer that using these formulas 15 math. that I'm not going to try to pretend to try to explain to 16 17 you and it comes up with a number, and that number is the percentage chance that the user is interested in the document. 18 19 What it is not doing is what plaintiff's 20 construction allows for, just approximating a degree of

21 likelihood or belief. It's not saying pretty sure he is 22 interested, he is probably interested, more likely than not. 23 That is not what is going on at all.

In fact, in the context of the parameters,plaintiff's presentation made this clear. He is talking

1 about how in the parameters he is using these values or 2 weights. And he said, well, he is pretty sure he likes cars 3 as a parameter. And you are not saying he -- I'm sorry. He was saying whether or not he likes cars is a parameter. 4 5 And you are not saying he is pretty sure, we're pretty sure he likes car. He is saying there is a number attached 6 7 to it. And another parameter might be whether he likes Fords, and there would be a number attached to that, too, 8 9 and you are taking those numbers and you are coming up 10 with the probability, the percentage chance of interest in 11 a document. You are not combining your pretty sures and 12 maybes to come up with I'm pretty sure he is interested. 13 And I would submit that those three examples 14 that we have on slide 54 would, each one of them would be approximating a degree of likelihood or belief. And that is 15 16 not what is going on in this patent. The next one I have is posterior probability. 17 We'll submit that on the briefs. I think that that is 18 19 sufficiently dealt with there. 20 What time did I get started? 11:30? 21 Well, the next one I will go to is user-specific data files. 22 23 Here, there is a dispute about whether they need 24 to be user specific and whether they need to be data files. 25 We say they need to be both, and we would submit that

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1	plaintiff seeks to eliminate both of those requirements.
2	The user specific should be the construed as
3	unique to the user for the same reasons as user specific
4	user model specific to the user and user specific learning
5	machine you know, we've had some back and forth about
6	what unique means and I think those same issues would apply
7	here.
8	And I will note on but we do think that there
9	is a requirement that the data file, each user has to have
10	their own data file. That is what it means to be user
11	specific. And I think if you actually look at slide 66 of
12	plaintiff's dec., that is how they're displaying it, too.
13	They had a row and then there was a they identified a
14	user through some number, and then they had all the
15	information about that user, but it's about that user. It's
16	not multiple users. And that is really what we want, we
17	think the construction needs to have, and there seems to be
18	a dispute on that and it should be resolved.
19	The next dispute is whether there need to be
20	files. Frankly, you know, the claims say files, files,
21	files, again and again. Slide 63. The spec talks about
22	them being files.
23	In its brief, plaintiff did point to files in
24	other situations in the spec. I'm not sure why because in
25	those situations they were also used as files.

1 And, you know, this is I think useful to 2 understand what is going on here. They're saying that the claim defines the term but they're really repeating claim 3 language. There is really no point. I mean no construction 4 5 at all would be better than what they're providing because what they are doing is limiting -- they're basically 6 7 eliminating the user-specific data files. And here is an example I came up with just to 8 9 kind of, from a grammatical point of view, show why what 10 they're saying doesn't really make any sense. You know, 11 they're saying that the wherein the user-specific data files 12 comprise language provides a definition. 13 Well, we came up with an element here, baking a 14 pizza wherein the pizza comprises pepperoni and mushrooms. Under their rationale, the pizza would be defined as 15 16 pepperoni and mushrooms, but that is not what a pizza is. 17 And, really, the same thing is true here with 18 the user-specific data file. You can't do that with 19 pointing to the rest of the claim, and that is exactly what 20 they're doing. 21 There is no basis in the spec to suggest that the data files don't need to be files; and we would submit 22 23 that that would be improper to adopt such a construction. 24 THE COURT: Sometimes, though, comprise is 25 definitional.

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1	MR. PERLSON: I am not saying there isn't a case
2	where comprise isn't definitional, but it isn't here, and,
3	in fact, there are numerous cases that say that comprising
4	means consisting of. And, usually, this comes up in a
5	situation where somebody will be going for a construction
6	that will say it's comprising but it can't be anything else.
7	That is usually where the terms you know, someone, a
8	defendant might be saying that something comprises A and B
9	and they'll be arguing, well, that means that it comprises A
10	and B and nothing else. And most of the cases say, well,
11	no, it can also have C, B, A, you know, several other things.
12	Most of the cases that you will see about
13	comprising really aren't on point here; but, you know, just
14	as a matter of common grammar, it has to be a data file. It
15	contains those things obviously that are in the claim, that
16	the claim says comprises but that does not define what the
17	data file is.
18	Going on to "user."
19	Here, we have the disputes as to whether a user
20	is a person or a person as represented by a tag or identifier.
21	I think, as your Honor observed, the patent, you
22	know, is talking about a user in the sense that it's a
23	person that someone is sending an e-mail and someone looking
24	on the Internet, browsing documents; and, of course, when
25	we're talking about personalization services, it makes sense

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1	then. We would be providing these services to a person.
2	And, in fact, plaintiff, in their brief, admits
3	that using a person using a computer is the common
4	meaning of user. And if you look at the brief, I think they
5	consistently are using it in that same way.
6	The specification does as well. You know, the
7	person is him or her. It's not the tag or identifier. It
8	is him or her. The tag or identifier claim never ever
9	appears in the spec, nothing, it, or anything like it.
10	And Mr. Konig, I asked him: Okay. So a user
11	in the context of your invention is a human being; is that
12	correct?
13	Is human being operating a computer.
14	Now, PUM, again, they admit, in lay parlance,
15	the user is the person operating the computer, and they are
16	actually arguing here there is a special definition. So,
17	essentially, you know, that there is a disavowal of the
18	meaning of user.
19	Now, we know that when you are disavowing
20	something, a plain meaning, that there has to be a very
21	clear indicator of that. There is nothing even close to
22	that here. Instead, as we've just shown, user is a user.
23	It constantly uses a person.
24	Now, the one thing that plaintiff really seems
25	to be hanging their hat on is this user u notion, but we

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1	would submit, your Honor, that has nothing to do with the
2	tagger identifier construction that they provided. All the
3	patent is saying, when it is talking about a user u, is a
4	convenient way in all those formulas we have seen in the
5	patent to denote it. It's like probability, $P(u/d)$. It's
6	using it's just a shorthand notation that is used in, you
7	know, statistics and those books. You look through it and
8	see a bunch of Us. That is how you express it in a formula.
9	It's not talking about a tagger identifier in a computer.
10	THE COURT: There is some representation of a
11	person in the computer; right? That is not in dispute.
12	MR. PERLSON: Well, in what? In the patent?
13	The patent doesn't say the patent does not say in any way
14	how the user is going to be tracked. There could be any
15	number of ways to track the user.
16	THE COURT: In 1999, and the way I'm thinking
17	of offhand is a webcam, watching the person physically in
18	the room. Wouldn't one of ordinary skill in the art in 1999
19	know that the user is the representation of the user in the
20	computer because that is what the computer talks to?
21	MR. PERLSON: No, I don't agree with that. And
22	let me explain.
23	The one of skill in the art would recognize that
24	a user is a person operating a computer. It's a live person
25	that you are providing personalization services to.

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1	Now, of course, one of skill in the art would
2	recognize that the person is not there is some in
3	plaintiff's tutorial, they showed this Robert Smith walking
4	into a computer and suddenly being inside the computer.
5	Obviously, they're not obviously suggesting that the person
6	was physically inside the computer, but they would recognize
7	that is not going on, and that there would be ways that
8	you would want to track a user so that you can monitor
9	interactions, so you can update user-specific data files,
10	and there can be any number of ways to do that.
11	The point is the patent is not talking
12	it's not it's not talking about that. It's just not
13	addressing that issue. What it is addressing is what you
14	are doing in relation to a user, which is a person.
15	Now, what Google does or anyone else does in
16	connection with the services they provide, whether or not
17	those individual instances are monitoring user interactions,
18	whether those things are actually monitoring a person is not
19	an issue of claim construction.
20	The point is that, later, someone will determine
21	whether what Google does or, you know, someone else, whether
22	that is actually monitoring the user. But that doesn't
23	change the fact that it's the user that is being monitored.
24	And, obviously, there, the user is not inside the computer
25	doing that.

1 THE COURT: So your reading of the patent is 2 that I won't find any instances where a user, the word "user" is being used to refer to something other than a 3 4 person. MR. PERLSON: I think that is right. 5 It's It's never -- it's certainly never a tag 6 always a person. 7 or an identifier. There is nothing in there about how you are tracking. They reference cookies and how Google does 8 9 the cookies. Certainly, it's not talking about cookies. 10 And to the extent they want to define a user as some sort 11 of computer representation of a user, they could have done 12 that. They could have done that. They could have said 13 transparently monitoring user interactions by looking at a 14 representation of a user in a computer. They didn't do that. They said transparently monitoring user interactions. 15 16 So what is going on here is it's a user. And, 17 you know, this notion that -- I also reject this notion that 18 we're somehow trying to manufacture some noninfringement 19 argument here. We didn't even suggest initially that user 20 be construed because, frankly, I didn't think I would have 21 to be here arguing as to whether a user is a person or not. And so, you know, this is not a dispute of our creation, 22 23 your Honor. 24 Next is, "document." 25 You know, electronic file or text or media.

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1	We pointed out in our briefs that there is any
2	number of places in the claims that talk about the document
3	that don't make any sense unless the document is an
4	electronic file.
5	You know, I listed some here: linking to a
6	document, properties of a document, crawling network
7	documents. They didn't respond to that in the briefs, and I
8	didn't hear any response to that here.
9	This is slide 77.
10	We pointed to very similar instances in the
11	specification where the same thing, documents are talking
12	about in ways that makes no sense unless it's an electronic
13	file. Again, no rebutting.
14	Plaintiff had this slide this figure 13 at
15	slide 78. It was up on the screen briefly but you didn't
16	address it. Here again, documents don't make sense unless
17	they're electronic files.
18	Slide 79, figure 18. Again, all these things
19	that are going on only make sense if it is an electronic
20	file.
21	Now, in their brief, they did say that all of
22	the actions above don't have to be performed on all documents.
23	Well, that is neither here nor there. The point is that the
24	use of documents in the claims and specification only make
25	sense if it's electronic documents. Whether or not you are

1 linking to documents doesn't change the fact that what we're 2 trying to do here is figure out what document means in the 3 context of this patent.

Now, plaintiff's construction would allow for
interpretation of the term that is entirely inconsistent,
we would submit, your Honor, with what is going on in the
patents. I mean it's text or media, so a single word could
be a document. A web page with 500 words could be 500
documents.

10 Claim 7(e) and (f) discloses identifying an 11 author and age of a document.

Well, if there is a word -- if there is a page with 500 words, does each one have a different age? We're trying to figure out when one was typed and not the other. That is not what the patent is talking about.

And, again, we haven't heard any -- this was raised in our briefs, and it's never been rebutted.

One argument that plaintiff did raise during its presentation is this notion of a dynamically created page. And I'm not sure why they think that our construction would preclude a dynamically created page. We don't think it does, and they didn't explain how it does, and I don't think it does.

24 What they do say, they say that the 25 specification defines document as text or other media. But

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1	it doesn't define it. It says what a document may include.
2	It may include text. It may include media. Sure.
3	And our construction is perfectly consistent
4	with that. Your electronic file can include your text, it
5	can include your sound, it can include the video. And it's
6	argument.
7	We would submit, your Honor, that it's only our
8	construction that would be consistent with what the patent
9	is actually talking about.
10	THE COURT: But you don't mean electronic file
11	to exclude text or other types of media.
12	MR. PERLSON: Well, of course, not. It would
13	include. In the electronic file, it could include text or
14	any other type of media.
15	I mean I think, you know, if it would say an
16	electronic file that could include text and all the other
17	things, if that is the hang-up, I don't think we would
18	object to that. I think electronic file is simple among
19	itself, but
20	So the next dispute as we're talking about the
21	documents is "unseen document." And, here, we're talking
22	about whether the document is unseen by any user or unseen
23	by the user.
24	And, now, the specification talks about these
25	collaborative filtering systems. I think both tutorials

1 actually describe these systems in the context of Amazon 2 where someone would be, you know, looking for a movie, I 3 think, and they look to see what other people like you, what movies they liked and suggest one of those movies to you. 4 5 But the problem that the specification talks about with these systems is that an item that has never been 6 7 rated cannot be recommended or evaluated. So if no-one has 8 ever seen this movie, then it's not going to be recommended 9 to you because there is no one like you who has seen the 10 movie that would allow you to be recommended. 11 And there is a further comment later on, so 12 that a product can be recommended even if it has never been purchased or evaluated previously. Again, this is a similar 13 14 distinction. This is on slide 85. And then during prosecution, the claims were 15 rejected over the Breese patent, and then the plaintiff or 16 17 the patentees added the limitation where it used to be the 18 document d and they replaced it with the unseen document d. 19 Well, there was another rejection, this time 20 under Gerace which was a collaborative filtering system, so 21 the applicants distinguished Gerace on the basis that unlike the patent as amended, it does not teach documents unseen by 22 23 any user. And I mean that is what it says. 24 In other words, it is not taught, nor is it 25 suggested how the first set of users or the first user R is

1 presented with an unseen document or an unseen ad. And we 2 would submit, your Honor, that they would be bound to this and that plaintiff should not be able to provide a 3 construction inconsistent with this construction because, 4 5 you know, they made a deal with the Patent Office. They 6 made the representations and, as part of their bargain, 7 their patent was offered, and they can't come back in and now claim something else. 8

9 THE COURT: That is clearly the law, but help me 10 understand how their construction is actually doing that.

MR. PERLSON: Sure. So Gerace allowed for -put simply, the distinction that they were trying -- that the applicants were trying to raise was that Gerace didn't allow for determining an interest of an unseen document. I mean it seems pretty clear that that is what is going on.

But that distinction only makes sense if it's

17 a document unseen by any user because Gerace allowed a 18 determination of interest to a user for an unseen document 19 by them. I mean that is the whole point. The whole point 20 is that you are relying on opinions of others to determine 21 whether a document is of interest to you.

16

So Gerace allowed you to look at documents that were unseen by you, but what it didn't allow -- and this is the distinction that they were raising -- is that it didn't allow for review of documents that hadn't been reviewed by 1 anybody, and that is the distinction they're making. So
2 that distinction only makes sense if it is an unseen document
3 by any user.

If it's an unseen document by the user, Gerace 4 5 could do that. I didn't have to -- in order for it to recommend a document to me, I didn't need to see it, but 6 7 somebody else did. Somebody else in my group did. And the applicants were saying, well, in my patent, you don't have 8 9 to worry about that, because nobody needs to see it. 10 THE COURT: Well, under plaintiff's 11 construction, their system allows you to make a prediction 12 whether the document has been unseen by everybody or whether it's just been unseen by the user. So I'm just trying to 13 14 understand what it is they disclaim that they're now trying 15 to claim back. That is where you are losing it. 16 MR. PERLSON: Sure. Sure. So I guess I agree 17 that their construction would allow the fact that it's 18 unseen by anybody but it should be required that it's unseen 19 by anybody. 20 THE COURT: So you think in the language you 21 just showed me, they specifically disclaimed being able to make a prediction as to whether a user would be interested 22 23 in a document that the user hadn't seen but others had seen? 24 Is that the disclaimer?

MR. PERLSON: And other users haven't seen.

They're saying, in the patent, you could determine an
 interest in a document that both the user and other users
 have not seen.

And, again, going back to what Gerace is about, Gerace is about allowing you to determine an interest in an unseen document to the user. I mean that is what it does.

7 But what the patentees were saying it doesn't do is allow you to review, to determine interest in a document 8 9 that is unseen by any of the users. And if that distinction 10 is not included in the claims, and if that is not how unseen 11 document is interpreted, then the distinction they are 12 raising doesn't make any sense, because Gerace did allow you to determine an interest in a document that was unseen by 13 14 you. And so plaintiff is, by making that the only limitation 15 and saying that it doesn't need to be unseen by you and also 16 unseen by the other users, they eliminated the only thing 17 that distinguishes Gerace.

THE COURT: I think I understand you.

18

25

MR. PERLSON: Okay. And, your Honor, the plaintiff talked about dependent claim 7 and the specification, and, you know, we addressed this in our brief. You know, the fact there may be other claims that existed before they disclaimed this meaning shouldn't allow them to recapture what was done through prosecution history.

THE COURT: There is no legal significance to

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1	the fact that claim 7 emerged nonetheless? Was granted to
2	them?
3	MR. PERLSON: I'm not aware of any legal
4	significance. The legal significance that I know of is that
5	a disclaimer and this is in the context of the preferred
6	embodiment. But that there is a disclaimer. It doesn't
7	matter whether there is even if it excludes a preferred
8	embodiment, I mean they are held to the bargain.
9	The fact that, you know, maybe someone just
10	didn't think about it. Well, gees, I really want to get
11	claim 1 in. How does that affect claim 7? Maybe nobody
12	thought about it. May they should have pointed that out to
13	the Patent Office, but they didn't. But that doesn't mean
14	that plaintiff should be able to come back in here after the
15	applicants made their deal with the Patent Office and undo
16	what they did to get the patent granted.
17	Now, going back to documents. I guess one of
18	the last document-type phrases here.
19	This is a phrase about indefiniteness. You
20	know, the law is clear that if there is not an objective
21	standard to be applied in determining infringement that the
22	patent would be indefinite.
23	Here, really, the question is whether the "of
24	interest" itself presents such a subjective question. And
25	we would say that the patent talks about determining whether

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1	a document is of interest to the user. And that is
2	precisely a subjective test.
3	Now, plaintiff cites examples from the
4	specification as to what, you know, the specification
5	describes as positive examples that come up with some sort
6	of what would be an objective measure, and they talk
7	about and this is slide 93 talk about things like
8	visited websites and search results.
9	But that doesn't necessarily mean that a
10	document is interesting. You know, you visited the website
11	and, gees, this is ridiculous. I have no interest in this
12	at all.
13	Or a document that is saved in favorites is
14	another one. Well, it could have been bookmarked by
15	mistake. There could have been some other reason why he
16	bookmarked it.
17	The user spent a long time viewing the document.
18	Maybe he just left the room. That is not an objective
19	indication of it.
20	Or the fact that the user followed links in the
21	document. Well, maybe he did that because he didn't like
22	what he found in the document.
23	So none of those are objective bases which can
24	determine interest.
25	And someone who is trying to practice this

invention, maybe they're tracking these things for some 1 2 other reason. Are they determining whether someone is, you know, the user interest simply because they're doing these 3 things even if that is not their intention in tracking them? 4 And the ambiguity regarding these positive examples shows 5 that this is really an unanswerable question. 6 7 And, once again, Mr. Konig really confirmed just the confusion that exists here. 8 9 And I said, you know, really kind of posing 10 plaintiff's construction to him: 11 "Question: You would agree that clicking on a 12 document is a positive response to a query? 13 "Answer: Not necessarily. As I said, I think 14 clicking on a query, clicking on any page is a strong indicator that you might like the content of the page, but 15 it might not be. It is not the only factor. Like I said, 16 17 you might click on something because it looks interesting, 18 and then you realize it's not what you were thinking, and you go back to the original search results page." 19 20 I mean this is really the ambiguity here. The 21 plaintiff is saying that there is some objective basis, but the objective basis they're pointing to is not objective at 22 23 all. 24 THE COURT: But objective doesn't mean perfect. 25 I mean you are just saying he is not going to always get it

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1	right, but that doesn't make it insolubly ambiguous.
2	MR. PERLSON: Well, I think this is a notion of
3	the problem here. Plaintiff was highlighting it in their
4	brief and I don't recall whether he said it in argument.
5	But in the brief, he pointed to Mr. Konig's testimony that
6	the subjective notion of the actual user interest is not
7	important, but the claims says you are determining whether
8	documents are of interest or not of interest to the user.
9	Now, there could have been a different way that
10	you could have drafted that to say something different, to
11	say looking at, you know, indicia of user or tracking how
12	many times a user clicked or doing something specific, but
13	they didn't do that. They said that this is what you need
14	to do. Well, how can you do that?
15	And, basically, plaintiff is saying you don't
16	even need to do that. They're saying the subjective notion
17	of the end user is irrelevant. So, basically, we're
18	presented with a situation where we have a term in which
19	you are determining the user interest in a document and
20	plaintiff is saying it's definite because you don't need to
21	determine the user interest at all because whether the user
22	is interested in the document is irrelevant.
23	Well, that is completely contrary to the plain
24	meaning of the phrase, and it's basically we're just kind
25	of going in one big circle. And someone who is trying to

practice the patent and trying to figure out whether what 1 2 I'm doing is determining whether a document is of interest 3 or not is not going to be able to know what they're doing is determining interest or not. I mean because, you know, 4 5 someone may say, gees, I'm tracking how often somebody clicks on something but I know by doing that, I can't 6 7 determine whether a document is of interest to the user for the reasons that Mr. Konig admitted. Am I infringing? 8 9 They're saying yes, but that is not what the claim says at 10 all. 11 And then the positive examples don't give you 12 real positive examples of determining user interest. There could be any number of examples where that could come up 13 14 with, so you have this problem of somebody trying to design a system that does not infringe and they wouldn't be able to 15 16 do it. 17 This is really the notion of what indefiniteness 18 is trying to solve. We don't want to be in a situation where somebody can't design a system and know whether or not 19 20 it infringes or not. And we would submit, Your Honor, it 21 gets us right --22 THE COURT: If a patent claim says analyzing the 23 monitor data to determine if documents are interesting, made 24 no reference to the user, just said they're interesting, 25 would that be at least -- would you at least grant that that

1 is more problematic? MR. PERLSON: I guess it is. I don't know that 2 3 it's that much more because I think basically what the patent is saying is determining whether documents are 4 5 interesting to the user. I mean that is what it is saying. There is really no difference between what it is saying. 6 7 You are determining documents of interest to the user. THE COURT: What if it said, analyze monitor 8 data to determine if the documents are aesthetically 9 10 pleasing? 11 MR. PERLSON: I think that is the Datamize 12 example, and I would certainly submit that that is indefinite. I don't think that Datamize set out, set the 13 14 floor as to what the worst possible construction could be and things could be, you know, worse than others, but I mean 15 that's the point. To take your interesting example, I would 16 17 submit that that is really no different than what is going on here. 18 19 THE COURT: Do I necessarily have to reach this 20 issue in the context of claim construction? 21 MR. PERLSON: Is there a case that I can point you to that says you absolutely must do it right now? I 22 23 don't know that I can cite you a case that says you 24 absolutely must need to do it right now. I can certainly 25 cite you a case, and we did in our brief, that says that

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1	it's absolutely appropriate to do it right now.
2	THE COURT: And why should I do it now?
3	MR. PERLSON: Well, because we're here, we made
4	the arguments, and it's been fully submitted; and, you know,
5	we should get some closure to determine what it is that, you
6	know, we're going to have this claim going forward.
7	And, in fact, I think can you pull up 26?
8	THE COURT: And let me tell you where we are. I
9	think you have 15 minutes left altogether and plaintiffs
10	have reserved 14 minutes.
11	MR. PERLSON: Okay.
12	No, that's not it. Okay. Well, let me go real
13	quick then to the order of steps.
14	Can you go to the first slide?
15	So it's not really clear what plaintiff we
16	laid these out in the briefs, and I don't need to go through
17	this all again. It's in slide 102.
18	And what this does, it walks through each of the
19	claims I mean each of the elements of claim 1, and the
20	next slide does the same thing for one of the claims of the
21	'276 patent. And it talks about how you are using what is
22	referred to in the prior claim and the next claim.
23	So, for example, you are estimating a
24	probability of (e) and you are using that in (f).
25	You are transparently monitoring in (a) and you
	109
----	---
1	are using those transparently monitored in (b).
2	You are estimating parameters in (c) and you are
3	using those parameters in (e).
4	I mean the whole claim has, there is an order to
5	it. And I really haven't heard in briefs or here today why
6	that isn't the case. And, you know, the E-Pass case this
7	is 105, slide 105 says when most of the steps of the
8	method claim refer to the completed results of the prior
9	step, they have to be performed in order.
10	And I really don't think there can be any
11	legitimate dispute that is the case here. The plaintiff,
12	they seem to be making some argument about a cycle in that
13	we're somehow creating some sort of noninfringement argument
14	or something.
15	But, you know, it's not our construction that
16	requires that each step occur for each iteration of a
17	proposed cycle. This is a method claim. So every one of
18	these claims, (a) through (g), needs to be performed. Of
19	course. That is, our construction is not providing that.
20	Now, if you do 1(a), (b), (c), (d) and (e)
21	and then you do (d) 100 times and then you do (e), (f), (g),
22	we're not saying that you are somehow out. You are practicing
23	all of the elements. And to the extent that that is what
24	their concern is, that is not what we're saying, and I can't
25	imagine how that can possibly be, our construction could be

1 interpreted in that way, and this notion of claims being 2 performed in order and constructions being done for that is 3 quite common.

And, really, I think the antecedent basis is really somewhat of the same issue. Here, we have a user. There is "the" user and there is an "a" user and every single one of these is the same; and it doesn't make any sense, you know, if it's not as we construe it.

9 There is user-specific data files, and then you 10 talk about what you do with the user-specific data files. 11 There is a learning machine, and you talk about what you do 12 with the learning machine. It has to be the same learning 13 machine. And if it is not -- and this is slide 109 -- then 14 there is not antecedent basis.

Again, this is something it really doesn't seem like something we should be fighting over. The plaintiff says the claim is clear on its face. I'm not sure clear as to what. They never told us. In fact, as to all of these terms listed on 109, they never suggested a meaning contrary to what we've said.

So at least as to these terms, there can't be a legitimate dispute. And we would submit under O_2 Micro, that this is a dispute that should be resolved so that plaintiff -- and I don't know what they're going to do with it, but so they can't come in later and come up with something that

	111
1	is inconsistent with this under what they view as their
2	yet-unstated clear interpretation.
3	Now, they do address two terms in their
4	arguments. They talk about the probability but,
5	curiously and this is at slide 111 they actually admit
6	that the estimated probability of step f refers back to the
7	estimated probability of $P(u/d)$ of step e. But I mean that
8	is what our construction is.
9	Instead, they come up with some argument about
10	how there is, there are multiple probabilities, one for each
11	unseen document. But, again, this is not inconsistent with
12	what we were saying. Yes. There is one probability for
13	each unseen document. When we're talking about the
14	probability, we're talking about the same probability. That
15	is what the claim says.
16	And document d, the document must refer to the
17	same document. You know, here, the response is the unseen
18	document d introduced in step e represents a subset of
19	document d.
20	Now, they said I don't know what that means. We
21	said in our brief we don't know what that means. They never
22	told you what that means, and we would submit that doesn't
23	make any sense at all for unseen document d to be a subset
24	of document d. There is nothing in the spec that would
25	suggest that such a peculiar reading, and there is nothing

	112
1	in the plain reading of the claims that would suggest that.
2	In fact, it wouldn't even make it wouldn't
3	make any sense at all if it was. First of all, why use
4	document d for both? And if you remember, your Honor, it
5	was, the claims actually previously said a document d and
6	then they put in the unseen document d, and I think to the
7	extent that there is kind of two a documents or a unseen
8	document in the claim, it's really by virtue of the fact
9	that somebody messed up when they were amending it and they
10	didn't conform it.
11	But clearly under their construction, if the
12	document is not the same, then the document in step 1(d) is
13	the same at the document in step 1(e).
14	And then there are all sorts of other documents
15	in the dependent claims, and we listed them on slide 114.
16	So which document are those? We would submit that that
17	would be clear.
18	And, Your Honor, we'll rest on our papers with
19	presenting and save some additional time for rebuttal.
20	THE COURT: Before you sit, going back to order
21	of steps real quick, you mean your construction to allow for
22	repetition of any particular step in a single cycle as I
23	understand it but you wouldn't allow for one to go back, to
24	go backwards. They have to go in the fixed order in which
25	the steps are listed.

MR. PERLSON: I think that is right. Maybe if I
could show you here.

3	THE COURT: Yes.
4	MR. PERLSON: Claim 1(a), let's say, in the
5	'276. You know, you could do (a) and you could do (b) and
6	for some reason you want to do (b) five times, okay? And
7	then you do (c) and (d), (e), (f), and then (g) and use (g)
8	five times. That's fine. And I don't think our claim
9	precludes that, but you can't do (g) before you do (a) and
10	you can't do (e) before you do (b). I mean it just doesn't
11	make any sense. That is really all we're trying to get at.
12	THE COURT: You can't do any later in the
13	alphabet letter in the step before you do the earlier ones.
14	MR. PERLSON: Right, in order. And, you know,
15	again, it's a method claim so you would have to point to
16	something somebody is doing. So, you know, there may be,
17	the method may be performed many times, I suppose, but when
18	we're talking about the instance of a particular method and
19	when it's being performed, it has to be performed in the
20	order.
21	THE COURT: Okay. Thank you.
22	All right. I think that leaves you about eight
23	minutes.
24	I'll hear from the plaintiff. As I said, you
25	have up to 14 minutes.

	114
1	MR. NELSON: Can we have a short break before
2	rebuttal?
3	THE COURT: That's fine. We'll take a 10-minute
4	break.
5	MR. NELSON: Appreciate it. Thank you.
6	(Brief recess taken.)
7	THE COURT: We'll hear plaintiff's 14 minutes,
8	or up to 14 minutes.
9	MR. NELSON: Thank you, your Honor. I
10	apologize. I'll probably use all of it.
11	THE COURT: That's fine.
12	MR. NELSON: Can I have slide 55, please.
13	And so defendant started his presentation by
14	talking about the present invention language, so that is
15	where I will start the rebuttal, and they cited the case
16	that they cited in the supplemental authority. And that
17	case is nothing new. It's basically building on what the
18	law was. What the law was in this area is that you look at
19	the specification in its entirety and determine whether the
20	present invention language is limiting or not.
21	And this is, 56 is the detailed description of
22	the patent where it says, anyone of ordinary skill in the
23	art would appreciate that many variations and alterations of
24	the following details are within the scope of the invention.
25	Accordingly, the preferred embodiment of the invention is

1 set forth. 2 The present invention referred to as Personal 3 Web. When you read the whole spec, it's clear the 4 Personal Web is an embodiment here. 5 Another example is slide 57. While a specific 6 7 embodiment of the learning machine is discussed below, it is to be understood any model that is a learning machine is 8 9 within the scope of the present invention. 10 The present invention consists of. And then it 11 goes again. It's another embodiment, your Honor. 12 And so when the patent is talking about this 13 Personal Web embodiment that they basically start their 14 argument with, it is just that, it's an embodiment, and the law is clear that you are not supposed to read limitations 15 16 from the embodiment even if it's only a single embodiment 17 into the claim language. 18 THE COURT: That wasn't the same true in Akamai, 19 If it was a preferred embodiment that the discussions though? 20 occurred under the sections of the patent referring to the preferred embodiment? 21 22 MR. NELSON: Yes, your Honor. That language 23 was certainly in Akamai, but I think the difference is in Akamai, when they looked at the entirety of the 24 25 specification, they concluded in this case it should be

1 limiting.

Here, I think when you look at the entirety of the specification in this case, it's clear that it's outside of the Akamai situation.

5 THE COURT: When I look to the entirety of the 6 specification here, will I find any other model or even 7 another preferred embodiment described other than the one 8 that you have just highlighted?

9 MR. NELSON: Yes. Your Honor, you will find 10 several other models or preferred embodiments or more 11 preferred embodiments of different pieces of this. The 12 figure 2 of the patent describes essentially what is in the 13 '040, claim 1.

Other examples are figure 19 which generally describes what is in claim 1 of '276. The patent talks about initialization and gives several ways that is done. It talks about updating and analyzing. I believe it gives multiple sort of pieces of that.

So I'm not sure that you could call the figure 2 thing Personal Web the only embodiment. And there certainly is a lot of teaching about what the user model is and how it's initialized and stuff in the Personal Web embodiment.

And that sort of takes me to my second point here is the difference again between the specific versus unique language. And counsel had a slide up there. I

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1	believe it was 16. I'm not quite sure.
2	That doesn't work.
3	So where they had a circle and they had user
4	model, and then a single model essentially that was our
5	construction, and then their construction was one person
6	referring to each model.
7	And what defendant's counsel sort of ignored
8	about all of that is the specific to the user language. And
9	this is all about the term parameters in PUM's view, and
10	although the defendant tried to make it seem like there
11	wasn't a big difference, in PUM's view, there is a huge
12	difference.
13	Defendant equates parameters and variables when
14	they talked about figure 4, but the result of defendant's
15	construction is if parameters are the actual, the words and
16	things like that, each user would have a separate model made
17	up of hundreds of thousands of words and all these other
18	things. That is not what our view is that the claims
19	contemplate. The claims contemplate that certainly that
20	could happen, but you could also have a model where you take
21	the function that I had up with the funnel slide, where you
22	track, you track six things.
23	That could be a model that is specific to one
24	user. It could also be a model that is specific to a
25	hundred users or a thousand users because the specificness

	118
1	or the specificity I'm not sure if specificness is a
2	word but that comes from the parameters that define it,
3	and the claims don't talk about the generic model. They
4	talk about the model that is specific to the user and the
5	learning machine that is specific to the user, and that
6	language contemplates that you could have let's say you
7	have a hundred different variables. Each of those variables
8	are given a value. That value is their parameter. Those
9	values are different for each person. Therefore, the model
10	is specific to that person.
11	That is really the heart of the dispute. And
12	it's all about the parameters term.
13	THE COURT: But if those numbers, the parameters
14	were coincidently the same for two people, in your view, is
15	the model still specific to the user?
16	MR. NELSON: Yes, absolutely. The model is
17	still specific to the user because it's defined by the user.
18	And the user-specific learning machine is specific to the
19	user.
20	THE COURT: And I heard Mr. Perlson agree with
21	that and also agree they're not trying to preclude you from
22	having the same variables. You know, we all like sports, we
23	all like cars. They're not trying to require you to have
24	different variables for each user. So I'm left wondering
25	where the dispute is here.

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1	MR. NELSON: Well, I don't think that counsel
2	agrees with that statement. Counsel views the parameters as
3	the variables and the specificness is a group of variables
4	How much are you interested in sports? Do you like cars?
5	all of those things as the parameters, and that is what
6	makes it specific.
7	And under that interpretation, you would have a
8	model that has variable 1 to 100 for one user, variable 1
9	through 200 for the next one, variable 1,000 through 1,050
10	for the next one. That would all be different.
11	In our view, that is a different situation where
12	you had a situation where you had a model that had 100
13	generic (a) (b) plus (a) (b) (c) (d) (e) times (x). That is
14	a function. That is a template for a function. Learning
15	machine.
16	When that model is made specific to a user by
17	being instantiated with the user's parameters that is
18	tracked in the user specific comes from the user-specific
19	data files there we go and is tracked by the system.
20	That, I think that is the difference. I don't think they
21	would agree that a model that was a single model that had
22	differing parameters being variables for different people
23	necessarily would or would not be within the claims.
24	THE COURT: You agree that probability has to be
25	a number; correct?

	120
1	MR. NELSON: Yes. That takes me to another
2	point here. And I want to mention some inventor testimony
3	as well here because they're only citing portions of it, and
4	I will give you a copy of all of the rebuttal slides which
5	have sort of counter cites to inventor testimony to what
6	they put up. I don't think that it's necessarily that
7	relevant but I want to give a complete picture.
8	But back to probability.
9	THE COURT: Okay.
10	MR. NELSON: So we do agree it's about math.
11	They're reading something into our definition of
12	approximating likelihood or belief. They're reading
13	something in there that we didn't intend to be there. We
14	certainly agree that probability is about half.
15	The difference between that definition is that
16	Google is trying to limit probability to a very specific
17	type of map, and that is a percentage chance calculation,
18	whereas probability in the Bayesian sense isn't limited to a
19	particular type of map. It could be a percentage chance.
20	It normally is not. It normally is expressed as some sort
21	of a numerical value that basically reflects a degree of
22	belief of likelihood.
23	I mean we could, to deal with their issue about,
24	that ours isn't about math at all, we could talk about, you
25	know, numerically approximating a degree of belief or

likelihood, something to that effect might work. 1 2 The dispute here isn't that we don't think it's about math and they do, it's that they try to limit it to a 3 specific type of math. 4 5 Can I get slide 223? And this is what Mr. Konig said. 6 7 "Question: When you say probabilities, what do 8 you mean? 9 "Answer: Again, it's an estimate of degree of 10 interest of a phenomenon you don't have absolute knowledge of." 11 12 "Estimating degrees that something will happen." Next slide. 13 14 And then posterior probability, he uses sort of the same language here. And this is 223 and 224. 15 16 Let's go to user real quick. Can I get Konig 17 slide 13? I'm sorry. Konig slide 213. 18 Now, counsel said that Mr. Konig said a user is a human being. Well, this is what Mr. Konig actually said. 19 20 "Question: And when you say 'for a specific user, ' what does that mean? 21 "Answer: User in the sense of there is a human 22 23 being operating a machine, and there's represented to the website or the Internet by some sort of electronic 24 25 identifier or tag.

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1	"Question: So the user is a human being in your
2	sentence?
3	"Answer: Again, my whole sentence was a user is
4	a human being operating a computer and is identified in our
5	current electronic world by a tag of identifiers to a
6	computer."
7	Slide 84, please. 84.
8	And you asked counsel about if there is any
9	information in the specification about whether a user was a
10	representative or not. Well, this is one example that we
11	put up. There is also and I'll just give you some figure
12	numbers. Figure 6A of the patent has, the user in that
13	context, the name Bob being represented in there. Figure 14
14	is a buffer that was shown before that is associated with
15	the user. It doesn't actually have the moniker there but
16	it's clear from the text that it's associated with a user,
17	again, being some electronic representation of the person.
18	Let's go to slide 71.
19	This is one of the definitions. One of the
20	things that they cited about our definitions was this
21	language from the prosecution history. That our definitions
22	aren't consistent with that. On slide 72 here, it puts up
23	the respective parties definitions in light of the
24	prosecution history. And our definitions do follow what
25	the statements are in the prosecution history. That there

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1	are three limitations and the deterministic relationship.
2	Let's go to slide 204, please.
3	And so there has been a lot of talk about what
4	the user model was here, and that it had to be specific to a
5	user. Mr. Konig was asked a whole variety of hypotheticals
6	about what if you had two users typing every other word on a
7	computer or something like that, and it didn't go away? And
8	they didn't step away from the computer. Is that one user
9	or two? Or if you have I think another one was where
10	they had six people and there are three computers and two of
11	them are using each computer. Is that, would that be a user
12	model specific to the user or not?
13	And that context, it goes back a little bit to
14	the dispute as to what a user is as well. But in the next
15	set of slides, 204 through 210 here, what he ultimately says
16	is the system isn't perfect, but you can have a situation
17	where you have a user model specific to a user based on the
18	user being a person or representative tag or identifier
19	where you have, the most extreme example might be two people
20	typing every other letter of a search query or something,
21	and if that is how that group choose to use the computer,
22	the model that is created based on the tag or identifier
23	using the parameters that were specific to that two-headed
24	person typing would still be a model specific to the user.
25	And Mr. Konig was clear on that. The entirety

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1	of that testimony is here in slides 209 to 210.
2	I think this is the conclusion.
3	"So it would be different than if the computer
4	didn't know anything about them, but it will be the impact
5	of both of their action will affect the personalization."
6	"So in the theoretical sense that for whatever
7	reason, they're doing random stuff that the computer cannot
8	differentiate, if each one of them is typing one character
9	and going away or something, then the position would be to
10	the position of them as a group."
11	Counsel made a point about the hats argument we
12	made, and that it wasn't applicable. Well, the hats are
13	applicable to initializing the user model, so the
14	initializing the user model, they are the user model for
15	that point in time. And so they definitely are applicable
16	the argument that plaintiff is making here.
17	Let's go I don't remember the slide but the
18	defendant had a slide up that said "program," and then it
19	was their software implementation argument, and it was an
20	extrinsic evidence cite. And what that cite, what the
21	entirety of that text says, it said learning machine/program,
22	usually represented in software. It didn't say it had to
23	be. It said usually represented in software.
24	And we're not saying that it couldn't be one,
25	but our model and function language that comes from the

specification, and, as counsel pointed out, is used 1 2 throughout the specification, is much more clear as to what 3 a user model -- what a learning machine actually is. Counsel gave an example also on user-specific 4 5 data files in the comprising language. That I think the example was something if you had a pizza comprising 6 7 pepperonis and sausages or whatever it was. 8 Well, that is using comprising up here in the 9 preamble sense. That is not what the case, what the 10 Haemonetics case that we cited teaches and that is not what the situation is here. 11 12 Taking counsel's example a little further. 13 Suppose you had a claim that says baking a pizza comprising: 14 forming a dough base, adding a sauce base, and adding a 15 topping base, comprising pepperonis and mushrooms. 16 I think in that sense, the pepperonis and 17 mushrooms are defined by the claims, and that is the argument we're making here, and that is where their example 18 breaks down. 19 20 I don't know if I'm out of time yet or not. 21 THE COURT: You have got about two more minutes, and I'm going to have two questions for you. But I'll give 22 23 you the minute and-a-half, and then I'll ask the questions. MR. NELSON: Can I have slide 215? 24 And so the "files" term and whether or not 25

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1	files should be electronic files. We don't dispute that
2	electronic or document definition, that it needs to be
3	electronic. What we dispute is the word files. And they
4	made some I'm not sure I remember them all, where they're
5	not trying to read out dynamic generated documents, and that
6	is good. But they're still defining files by how they're
7	stored, and what are Mr. Konig said, there are places that
8	we talk about tables and other data structures that are not
9	necessarily files.
10	And I think one place, which I won't be able to
11	find in a minute here probably.
12	THE COURT: Well, you said they would be
13	satisfied with a definition of document to be electronic
14	file which can include text or any type of media. So what
15	is the problem with that?
16	MR. NELSON: Well, I think still it's not clear
17	what their definition of file actually is. They made some
18	representations but it's still defining a document by how
19	it's stored as opposed to what it is.
20	THE COURT: All right. Let me ask you on
21	learning machine, it seemed like there was some movement
22	towards compromise there. Did you hear any? Where do you
23	think we are on learning machine?
24	MR. NELSON: I'm not actually sure, I heard so
25	many things.

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1	THE COURT: Well, specifically, I understood
2	Google to be comfortable with modifying improve in their
3	construction to attempts to improve.
4	MR. NELSON: Yes, and I think we would be fine
5	with that.
6	THE COURT: And that may have been the only
7	progress.
8	MR. NELSON: We might with the monitored I
9	need to remember the exact phraseology, but it's the
10	monitored interactions piece. I mean that was movement
11	toward where we needed to be, but I think, as we showed on
12	one of the slides, that it's clear that the user specific
13	data files which are used to update the user model or to
14	define the user model, that data is used to then obtain the
15	parameters which define the user model.
16	The data doesn't only come from the monitored
17	user interactions, so if they're willing to go further to
18	include the world knowledge concept and the other concept
19	which is the set of documents associated with the user,
20	there may be may be some room for some improvement there as
21	well.
22	THE COURT: I will give you one more minute, if
23	there is anything you wish to add.
24	MR. NELSON: Appreciate that, your Honor.
25	Let me have slide 213. No, wait. Let me have

1 slide 227, please.

2	This goes to the definiteness argument, and this
3	is what Mr. Konig ultimately says, and the systems aren't
4	perfect but what they're trying to do is inject the
5	subjectivity when the specification teaches to one of
6	ordinary skill in the art how to practice this invention and
7	what would or would not be of interest to the user.
8	And Mr. Konig's ultimate conclusion is the
9	system is making a determination. And they quoted a piece
10	of it, but it's making the best estimated estimated based
11	on the design principle whether the user is interested in
12	the document or not. He absolutely thought of the user as
13	something else.
14	Of course, these systems are designed to try to
15	take the user interest into account, but from a design
16	perspective and somebody practicing all of the elements of
17	the claim in this case, the spec clearly teaches one of
18	ordinary skill in the art and provides many, many examples
19	of objective evidence of what would or would not be of
20	interest or not of interest document-wise to the user.
21	And then the last point I wanted to make was
22	just on the order of steps issue.
23	You know, figure 19 shows that you can go
24	backwards. You can, for example, initialize the user
25	model, run a search, retrieve some documents, identify

1 their properties, come up with a probability, present some 2 documents to the user, run another search. Some of this 3 stuff is being monitored so this step is being done but you wouldn't have to update during any of this time. You 4 5 wouldn't have to update the user model again. You could then run another search, retrieve some documents, and as 6 the system normally updates, whether it's every hour, 7 8 every minute, every 24 hours every month, in the middle of 9 this process there could be an estimating parameters of 10 user-specific learning machine done based in part on the 11 documents of interest to the user. So it wouldn't have to 12 go in that order. 13 And I think with that, your Honor, I'll close. 14 And I appreciate it very much, your time and your patience. Thank you. 15 16 THE COURT: Thank you. 17 Mr. Perlson, I'll round you up to 10 minutes, if 18 you want it. 19 MR. PERLSON: Okay. Thank you very much, your 20 Honor. Appreciate it. 21 Well, let me first start out with -- let me switch this. (Operating Elmo.) 22 23 This is 7. 24 Your Honor, on rebuttal, plaintiff's counsel did 25 address this present invention point, and the one thing he

never did rebut is there is no disclosure of a method where 1 2 there is a user model that is not for each user. And that 3 is really the point. And that is why this is the same as Akamai. In that case, there was no other -- there is no 4 5 disclosure of. There was an alphanumeric string that didn't include the object's original URL. Here, it's user model 6 7 and each user has to have their own user model, and there is no disclosure of anything else in the spec. And I really 8 9 don't think that that is disputed.

10 Whether or not there might be some aspects of the Personal Web embodiment that aren't claimed is a 11 12 separate issue. I mean it's not every single, every single word that the person -- or what is described as a Personal 13 14 Web might not be claimed, but that is an entirely separate issue as to whether the only thing that is described in the 15 16 spec is that each model -- that each user has their own 17 model.

And I wanted to talk about that a little bit because I think it's still really critical to make clear what the distinction is between our position and their position. And it seems to me that plaintiff explicitly said that in slide 16, that one on the left is what they allow. That each user does not need to have their own user model. And that, again, they never pointed to anything

25 in the spec that would support that. And they just seemed

1 to not want to have their patent limited to that. But that 2 is not what it says. The user model is specific to the 3 user.

And they keep on harping on the parameters. 4 And while, you know, I think it's probably true that by virtue 5 of the fact of the parameters, the user model being specific 6 7 to the user, that the user model would have parameters and those parameters would, you know, show the user's interest 8 9 in something or a topic, but it's the user model itself that 10 has to be specific to the user, and that is what the claims 11 say. And that is the term at issue. Is the user model 12 itself specific to the user? Is the learning machine 13 specific to the user?

14 Now, I came up with this little drawing here to 15 show what I think plaintiff is saying.

They had said that the user model can have a hundred users or a thousand users and that parameters from each of those users can make up the user model and it can still be specific to all of them. Your Honor, that is the group model that we have, on slide 17 we show that, and that is not a user model.

This is what they're saying a user model specific to the user is. They're saying if you have user (a) (b) and (c) and there is parameters as to each of them, and as long as you are using a parameter for (a) and a

L	parameter f	for (b) an	nd a paramete	r for (c)	that the	user
2	model is sp	ecific to	each of the	m.		

3 But that doesn't make any sense and that is not what the patent describes. The patent describes (a) gets 4 5 its own user model, (b) gets its own user model and (c) gets a user model. The group user model does not become specific 6 7 to the user merely because it's using data from that user, and that really is the heart of the dispute here. And we 8 9 would submit that the plain language of the claims and the 10 spec are entirely consistent and really allow for no other 11 interpretation.

There was some discussion of probability, and 12 13 plaintiff conceded that probability needs to be a number, 14 and there is no limitation. They explain how their construction accounts for that. I mean they never explained 15 16 why the examples that we provided in the slide about how the user may be interested and is probably interested, our 17 beliefs or likelihood. Those fit within their construction, 18 19 and that is not what our construction provides. We submit 20 ours is the one that is consistent with the spec. It needs 21 to be a number and the number is a percent of the chance, and nothing has been provided to the contrary. 22

They seek to rebut the pizza example. That example is not as they said, talking about the preamble of the claim. We used almost identical language to the claim

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1	at issue. I mean the claim talks about estimating
2	parameters of a learning machine wherein the parameters
3	define a user model actually, that's the wrong one. It's
4	(b), 1(b) updating user-specific data files wherein the
5	user-specific data files comprise the monitored user
6	interactions. The language that we provided was making a
7	pizza wherein the pizza comprises pepperoni and mushrooms.
8	I mean it is exactly the same thing, and there is nothing
9	about the preamble, and that whole example that he came up
10	with has nothing to do with our point. As a simple matter
11	of grammar, it still needs to be a data file.
12	And I will also note your Honor, your Honor,
13	that while plaintiff took us to task for citing Mr. Konig's
14	testimony, he actually affirmatively cited Mr. Konig's
15	testimony when it served his purposes, and I think he showed
16	slide 215 just a few minutes ago. So I think that it's fair
17	game for both of us, and it is appropriate to look at.
18	And, finally, I will also note that in the
19	description of user, it's true that I had much back and
20	forthwith Mr. Konig regarding what a user was in his
21	deposition; and, you know, he seemed to be trying to go
22	down plaintiff's line; but when asked the clear question,
23	he answered and he said that a user is a person operating a
24	computer. That is a clear question and answer that I
25	provided and nothing in his other testimony does that.

1 Nothing further, your Honor. 2 THE COURT: One question for you. It's not 3 really directly claim construction, but I think Mr. Nelson showed me some new slides and suggested that he wanted to 4 submit rebuttal slides. Do you have any objection to me 5 getting a submission after the hearing of slides and I could 6 7 take your one rebuttal slide? MR. PERLSON. Yes, I want to make sure that 8 9 this -- I actually did not draw this. I had Ms. Roberts. Ι 10 sketched it out and it looked nothing even remotely as nice 11 as this. 12 THE COURT: Do you have the slides here? MS. JACOBS LOUDEN: We do, your Honor. 13 14 THE COURT: I'll take a copy when Google has a chance to prepare it of your rebuttal slide as well. 15 16 MR. PERLSON: Okay. But were all those rebuttal 17 slide used? 18 MS. JACOBS LOUDEN: Yes, they were up here on 19 the screen. 20 MR. NELSON: I don't know if every single one 21 was used, your Honor. There probably are a couple in there that weren't used. 22 23 THE COURT: All right. 24 MR. NELSON: The idea was to, since we didn't 25 know which portions of inventor testimony would be cited,

1 the idea was to try to canvas all of the testimony that he 2 qave --3 THE COURT: Okay. MR. NELSON: -- to present a balanced picture. 4 5 THE COURT: You can have a seat. I'll tell you 6 what we're going to do. 7 Don't forget your slide. 8 MR. PERLSON: (Holding up slide while sitting 9 down). THE COURT: So there had been a little bit of 10 11 movement back and forth, a little bit of shifting of 12 So I do want to give you all a chance to take a position. few days to meet and confer and get back to me by the end of 13 14 this week on Friday and just let me know, you know, where we 15 are in terms of which claim terms are in dispute. 16 I don't have high hopes that you are going to 17 find that you have narrowed the disputes much, but I don't think that there is a lot here for me to decide right now, 18 and there may be slightly less on Friday if I give you a few 19 20 days to meet and confer. So I want you to get back to me by 21 letters. You can each submit one, if you wish, on Friday. Let me know at that point what remains in dispute and what 22 23 are the specific constructions each side is proposing at 24 this time. 25 Also give me whatever additional slides you

1 think I need to see based on what you presented today. I do 2 also want to get a complete copy of Mr. Konig's deposition 3 testimony with an index to it, so it should be the Min-U-Script form or some form in which I can look things up 4 from an index. 5 And the final thing I would like from you all 6 7 is put your heads together and see if you can agree on what order in which the Court should address these terms in its 8 9 opinion. You all took different tacts from one another in 10 your briefing and different approaches yet again today. 11 I'm not forcing you to agree, but I'd like at 12 least to put some effort in it before I do as to whether or not you can agree on a structure in which I can meaningfully 13 14 resolve these disputes and give you my explanation for it. So I'll look for whether you have one for two proposals on 15 that in your submissions Friday. 16 17 Yes, Mr. Perlson. 18 MR. PERLSON: I have a question on that. There 19 are some concepts that I think are probably similar on how 20 to group things together. If there are sort of groups that 21 we can put together, would that be useful, for example, like four or five terms. 22 23 THE COURT: I'm going to let you see what 24 progress you can make and it probably goes without saying 25 but even if you reach agreement, I may write it differently,

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1	but I would like to see what you come up with, focusing on
2	that so that I maximize the chance of being helpful to you.
3	Anything further, Mr. Nelson?
4	MR. NELSON: No, your Honor.
5	THE COURT: No. And Mr. Perlson, anything?
6	MR. PERLSON: Nothing further, your Honor.
7	THE COURT: Okay. Thank you all very much.
8	We'll be in recess.
9	(Claim construction hearing ends at 1:35 p.m.)
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