

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

GOOGLE LLC,
Petitioner,

v.

138 EAST LCD ADVANCEMENTS LIMITED,
Patent Owner.

Case IPR2024-00960
Patent 7,486,807 B2

Record of Oral Hearing
Held: September 30, 2025

Before KRISTEN L. DROESCH, GEORGE R. HOSKINS, and
KEVIN C. TROCK, *Administrative Patent Judges*.

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The above-entitled matter came on for hearing Tuesday, September 30, 2025, commencing at 1:00 p.m. EDT, at the U.S. Patent and Trademark Office, 600 Dulany Street, Alexandria, Virginia.

P-R-O-C-E-E-D-I-N-G-S

1:59 p.m.

JUDGE DROESCH: Good afternoon, everyone. We're here for the oral arguments for IPR2024-00960, challenging the claims of patent number 7,486,807. I'm Judge Droesch, and joining us today for the hearing remotely are Judge Hoskins and Judge Trock. We'll get started with appearances from both parties for those who will be arguing today. And if anyone else is attending in person or remotely with you today, please identify them as well. Appearances for Petitioner, you may begin.

MR. RODKEY: Good afternoon, Your Honors. Kevin Rodkey for Petitioner. And with me is co-counsel Alissa Green. We have LEAP counsel Erika Arner, and also backup counsel Robert High. And with us is Emily Chen, who is in-house counsel for Google.

JUDGE DROESCH: Thank you. Counsel for Patent Owner?

MR. CARMAN: Good afternoon, Your Honors. Derrick Carman on behalf of Patent Owner. And with me today are two client representatives, Boaz Brickman and Steve Shin.

JUDGE DROESCH: Okay. Per the order regarding oral hearing, Petitioner is allowed 60 minutes for his presentation and will go first. Petitioner may reserve some of his time for rebuttal, but may not exceed 30 minutes. And following Petitioner's presentation, Patent Owner will go with their presentation. Patent Owner also will have 60 minutes and may reserve some of his time for surrebuttal to respond. And you will have no more than 30 minutes for your surrebuttal as well.

And to aid in the preparation of the hearing transcript, please identify

1 your demonstrative slides by the slide numbers. And please remember that
2 your arguments should be limited to only those arguments previously
3 presented in your briefs. And please make it clear which challenges and
4 claims you are addressing at all times. And if there are any objections
5 regarding your opposing counsel's arguments, please wait until it's your turn
6 at the podium to note any objections. Counsel for Petitioner, you'll be going
7 first. Would you like to reserve some time for your rebuttal?

8 MR. RODKEY: Yes, Your Honor, 15 minutes.

9 JUDGE DROESCH: All right. Counsel for Patent Owner, would you
10 like to reserve any time for rebuttal?

11 MR. CARMAN: Yes, ten minutes, please.

12 JUDGE DROESCH: Okay. Great, thank you. Counsel for
13 Petitioner, you may begin whenever you are ready.

14 MR. RODKEY: Good afternoon, Your Honors. Kevin Rodkey for
15 Petitioner. And this is in proceeding IPR2024-00960 regarding US Patent
16 Number 7,486,807. And this should be fairly straightforward. We have two
17 grounds of unpatentability in this proceeding. One, it challenges all claims
18 of the '807 patent under both Sections 102 and 103 in view of the reference
19 Stubler. And then we have a second ground that challenges dependent
20 claims 2-5 and 9-12 for obviousness based on Stubler and Wang.

21 There's one issue here. It's a claim construction issue that relates only
22 to Claim 1 of Ground 1 and the Stubler reference. And that is whether or not
23 the Board needs to construe the claim term similar to the object of the image
24 previously contained in the database. And as we'll see, the ultimate
25 resolution of this does not actually impact the outcome of the proceeding.

1 Whether or not the Board adopts this construction, all of the claims are
2 unpatentable based on the Stubler reference.

3 I think it's helpful just to kind of set the stage here. First, with the
4 '807 patent, and then let's talk a little bit about the Stubler reference, just to
5 show the parallels between them and ultimately kind of preview why this
6 claim construction issue doesn't matter. What I have on slide 2 is an excerpt
7 from the '807 patent, and you can see figure 8 on the right, and a little
8 excerpt of figure 3. Figure 8 is one embodiment of the '807 patent.

9 The '807 patent generally is directed to, at a very high level, receiving
10 an image, locating an object within that image, and then looking at other
11 images to see if they have a similar object and proposing keywords related to
12 it. So as one example, if I take a picture with a camera of a car, and then the
13 software finds the car in the image, it goes to a database and finds other cars
14 and says, ah, you have a car. We have other cars, and it proposes keywords
15 related to cars.

16 Figure 8 is one embodiment that's related to people specifically. And
17 in figure 8, you can see these steps in the diagrammatic level. At the top, we
18 receive the inputted image here in step S1, and then it detects a face at step
19 S2 and step S3. So that's where we find the object of the image itself. If it
20 finds a face, it does it several ways, including by color matching or a face
21 representation in order to identify that face.

22 Then what is ultimately disputed is whether or not the Board should
23 read this step S4 and step S5 into the limitations of Claim 1 as an additional
24 step regarding the precision of the identification of the object. The plain
25 language of the claim doesn't require that. The language of the specification

1 doesn't require it. There's no lexicography. There's no prosecution history.
2 Patent Owner is simply trying to read an additional limitation from one
3 embodiment into the claims themselves.

4 Once the face is identified, we come down to steps S6, S7, and S8,
5 and that's where the keyword related to the face or the human is proposed to
6 the user, and then the user can either accept or modify those keywords,
7 depending on whether or not they are correct.

8 The Stubler reference, and I'm on slide 5 now, does exactly the same thing.
9 And what we have on slide 5 are excerpts from Stubler figure 4 and 5.
10 Those are the figures in the middle. And then we have excerpts from
11 paragraphs 22 in the top left, 34 on the right, and paragraph 40 in the bottom
12 left.

13 We've highlighted three of the major steps here. That's steps 236,
14 258, and 262 in the middle. These perform the same steps that we just
15 talked about for the '807 patent, and they do it in the same way with the
16 exact same examples.

17 So at step 236, Stubler does what it calls extracting region features
18 and building a region representation. Paragraph 22 illuminates what that is,
19 and you can see in the top left of paragraph 22 on slide 5, Stubler says, the
20 invention uses image similarity based upon objectively measurable or
21 determinable metadata to provide a mechanism for assigning captions or
22 semantic labels. Captions and semantic labels are just keywords.

23 So what does it mean by metadata? Paragraph 22 tells us that. If you
24 look at the second part where it's highlighted, just above the asterisks, it
25 says, typical metadata includes low-level measurable features such as color

1 or texture, or image-accompanying data such as time or capture. Color and
2 texture are the ones that we're going to be looking at. One of the examples
3 of color and texture is in paragraph 30 of Stubler. It talks about using face
4 colors in order to identify a face because those appear in a certain range of
5 colors. When you have those, you can find a face in an image. That's what
6 happens at step 236.

7 At step 258, Stubler searches the database for regions with similar
8 metadata. Again, metadata is like the face color, as we just saw. And it says
9 in paragraph 40 on the left, if captioning or semantic labeling, adding
10 keywords, of the acquired images based on the region metadata, again, the
11 face or the face color is desired at step 256, the database is searched at step
12 258 for images with region metadata, e.g., a face, sky, grass, skin, open
13 space, et cetera, similar to that of the acquired image. It does the same thing.
14 It looks for that face color.

15 Again, we know the metadata is this low-level measurable thing like
16 face color. It looks for that in a database. One of the examples of the way it
17 does that is in paragraph 34 on the right. And this is specifically, again,
18 related to faces. Talking again about region metadata, such as a face, it says
19 images can be processed for similarity by known algorithms. As an
20 example, a determination of facial similarity is described in M. Turk and A.
21 Pentland, Eigenfaces for Recognition. It gets a citation for that. So we're
22 looking for the same thing.

23 This is that step that Patent Owner is trying to read in about a certain
24 type of precision of identification of the object rather than just the object
25 itself is in Claim 1. What happens when we find this face? Or in the case of

1 paragraph 34, a specific face of an individual? Then we get to step 262. It
2 says, quote, when you have found those, then the captions or semantic labels
3 for the regional aspects, those are the faces, of the retrieved and matched
4 images are prepared as options, step 262, for extension to the acquired
5 images. It proposes keywords for the user. It's exactly what we saw in
6 figure 8 of the '807 patent.

7 So ultimately, it doesn't matter how we resolve this. But I think
8 before we get to the resolution of why it doesn't matter, we've kind of
9 previewed why Stubler teaches the same thing. Let's resolve the claim
10 construction issue. Because when you resolve the claim construction issue
11 correctly, and actually there's no constructions necessary, we just have the
12 plain language of Claim 1. There's no dispute that Stubler discloses or
13 renders obvious all of the claims of the '807 patent.

14 On slide 8, which I'm on now, we have a table showing the claim
15 term, Petitioner's position, which is no construction necessary, and also
16 Patent Owner's construction. And I'm going to focus on Patent Owner's
17 construction here because we've underlined three words. The difference
18 between the claim term and Patent Owner's construction is that they add
19 these three words. They're not trying to interpret the claim. They're not
20 trying to show lexicography. They're just adding words to rewrite the claim.
21 And they've got several problems with this.

22 One is that two of the words they're trying to input, sufficiently and
23 identify, don't appear in the specification at all. Sufficiently imparts a term
24 of degree. And as we'll talk about in a minute, that term of degree is
25 sufficiently similar to identify, to a specific object, really causes a lot of

1 problems. So we can talk about faces all we want. We can think about,
2 okay, maybe a unique individual could be sufficiently similar. But the
3 problem is nothing says this is the same. In fact, the claim itself says
4 similar. By definition, similar is not the same. Patent Owner is trying to
5 read in things that are not in the claim itself.

6 And they're not hiding what they're trying to do. So what we have on
7 slide 9 is an excerpt from Patent Owner's response, page 19, and Patent
8 Owner's surreply, page 9. They're being very clear about why they're trying
9 to rewrite this claim. They're trying to write in a requirement that the claim
10 itself identify a unique individual, such as a specific person named Jiro. Or
11 in the surreply, they say that a human is a specific, unique human. They're
12 trying to make a uniqueness requirement or a precision requirement. That's
13 not even in the claim language that they're trying to propose. It doesn't say
14 unique. It just says sufficiently.

15 JUDGE TROCK: Counsel, this is Judge Trock. Can you hear me?

16 MR. RODKEY: Yes, Your Honor.

17 JUDGE TROCK: I have a question for you. I believe you said that
18 similar is not the same. Is that correct?

19 MR. RODKEY: Yes, Your Honor.

20 JUDGE TROCK: Does similar exclude it being the same?

21 MR. RODKEY: As we understand it, no, Your Honor. The examples
22 of the '807 patent do say that it can identify a unique individual. So we think
23 that it's possible that that could fall within the scope of similar. But the
24 difference is that it's not limited to the unique individual, which is what
25 Patent Owner is trying to do.

1 JUDGE TROCK: All right. Thanks.

2 MR. RODKEY: None of the canons of claim construction support
3 Patent Owner's positions. So I'm on slide 10 now, where we have claims 1,
4 2, and 5 of the '807 patent. And the two limitations that really are being
5 fought about here in Claim 1, the first one is highlighted in green. It is the
6 object acknowledging section for acknowledging an inputted object in the
7 inputted image. Again, that's identifying a face or a skin color or a color in
8 the examples of the '807 patents.

9 And then the second limitation is the one with the claim term in it. It's
10 the object information inputting section at the end where the user confirms
11 keywords, and highlighted in yellow on the left, when the inputted object
12 acknowledged by the object acknowledging section, the face, for example, is
13 similar to the object of the image previously contained in the database. All
14 that says is similar. It doesn't add any level of precision.

15 And we can think about this just in normal terms, right? If you have a
16 child, when they're young, we ask them to identify things that are similar.
17 We might give them three pictures of cars and three pictures of people and
18 three pictures of cats and ask them which of these are similar. Most of them
19 circle all the cars, circle all the people, circle all the cats, right? Even if
20 they're not the same car, the same person, or the same cat. Why? Because
21 those are similar. They're the same object.

22 Patent Owner, as we saw, is trying to read in Claim 2. So Claim 2
23 further adds limitations to this object acknowledging section in green. The
24 two parts that Patent Owner is focused on are highlighted in green. They are
25 the face image detecting section, which detects the face, and the face image

1 similarity detecting section. That's a more precision-based type of
2 limitation. Because that one says, for detecting a face image, which is
3 detected by the face image detecting section above, so as to detect a similar
4 face image. That one gets to some level of precision, but again does not
5 require uniqueness that Patent Owner has said its construction is going to
6 require.

7 But again, those are in Claim 2. Claim 1 doesn't have either of those
8 steps, and also the specification of the '807 patent never discusses these steps
9 for any object other than a face. Claim 1 only has an object. It never
10 discusses precision related to objects such as the car that it identifies.

11 This specification doesn't help Patent Owner either. So I am on slide
12 11 now, and I want to start in the bottom left. This has four excerpts from
13 the '807 patent. In the bottom left, this is column 5, lines 56 to 61. It says,
14 consequently, a specific object such as a human or a car in the newly
15 inputted image is acknowledged, parentheses detected, in the object
16 acknowledging step. All that acknowledging step that we saw in Claim 1
17 requires is a car or a human. It doesn't say anything else.

18 It then says, in addition, if a specific object is detected in the object
19 acknowledging step, the keywords which relate to the object are proposed to
20 the user in the keyword proposing step. It doesn't add any further precision.
21 There is no second step to narrow that car down to a specific car, no step to
22 narrow that human down to a specific human. We see this in figure 3 on the
23 top right, and then the description of figure 3 on the bottom right of slide 11.

24 When discussing figure 3, you can see in the image above, it says,
25 human is detected from the inputted image. Please input human

1 information. It doesn't say Jiro is detected. Please input Jiro's information.
2 It doesn't say Cici is detected. It says a human. That's the level of precision
3 that Claim 1 requires, and that's what Claim 1 talks about when it's talking
4 about things like cars, also humans. The other steps the patent owner is
5 trying to read in are specifically in Claim 2.

6 This has shown the examples of the keywords that the '807 patent
7 supplies, and I'm on slide 12 now of Petitioner's demonstratives. Those
8 keywords, and I'm going to go again, these red boxes are excerpts from the
9 patent, the bottom left. This is column 7, lines 48 to 51.

10 It says, for example, if an object which is supposed to be retrieved is a
11 human, a human, retrieving conditions, keywords, such as selecting among
12 family and friend are inputted.

13 It doesn't say Jiro. It says we're selecting among family and friend.
14 Because we found a human. There's a good chance for taking a picture of a
15 human. It's probably our family or friends. It makes sense to propose those
16 first.

17 And just as further evidence, the patent owner is trying to read in
18 examples, as opposed to requirements, on the bottom right, from column 6,
19 line 64, to column 7, line 3. It says the keyword is used for retrieving an
20 image which contains a human. Such keywords can be set up in a
21 hierarchical structure. For example, if an object is a human, a family or
22 relative may be keywords as a superior concept. Again, family or relative,
23 high-level concepts, not individuals.

24 Furthermore, it is possible. It doesn't say it's required. It says it's
25 possible. It's an option to name eldest brother, eldest sister, or maternal

1 relative as supporting concepts. Not required, simply examples.

2 And I'm on slide 14 now. And this is the other issue that we have
3 with the claim construction, is that it makes the claim ambiguous. They're
4 saying sufficiently similar to identify a specific object. We don't know what
5 sufficiently means. We have no guidance. It's not a term that appears in the
6 '807 patent. It's not a term that Patent Owner's blind on. It's not a term that
7 Patent Owner's experts are blind on.

8 We know from the Federal Circuit's case law that when we have these
9 terms of degree, we need objective boundaries from the specification with
10 reasonable certainty to know where these end. We have none. Canons of
11 claim construction don't allow us to interpret claims that are otherwise clear
12 on their face in a way that renders them indefinite or ambiguous. And we
13 have some examples. I'm on slide 15 now.

14 We have examples. These are in the petitioner's reply showing the
15 problems. On the left, we have an object from the database. And on the
16 right, we have objects that may appear in the new image. Which of these are
17 sufficiently similar to identify the specific object? If we have a blue sedan,
18 is a blue SUV enough? Blue sports car? Purple sedan? They're not saying,
19 but are they sufficient? We don't know. Patent Owner can't tell us. Its
20 expert doesn't know either. That makes this a bad claim construction. That
21 fails the tenets of claim construction.

22 What about a gray SUV? Is it a black SUV? White SUV? Blue
23 SUV? They're similar, but are they similar enough? Are they sufficiently
24 similar? We don't know. Patent Owner can't tell us. If we have a picture of
25 a woman, Patent Owner said if we find that exact woman, that's fine.

1 But what about the woman's sister who looks similar to her? Is that
2 sufficiently similar to identify the woman? What about a woman with the
3 same skin color? Same skin color, same hair color -- same skin color and
4 hair color. When are we sufficiently similar? That's the problem with
5 Patent Owner's construction. They're trying to impart this precision
6 requirement that doesn't appear in the claim and actually makes the claim
7 ambiguous.

8 Patent Owner has an expert. That expert has simply opined on the
9 intrinsic record. We know that that's an improper way to go about claim
10 construction. We look at the intrinsic record only to begin with. Also,
11 beginning with the language of the claim. As we saw, the claim language,
12 similar to the object previously contained in the database, is clear on its face.
13 We don't need further interpretation of that.

14 Phillips tells us that we don't even look at extrinsic evidence, which is
15 what an expert is, unless we can't resolve it on the intrinsic record. As I
16 said, we can't resolve it here. We don't even get to an expert. But if you do
17 get to an expert and you do consider it, we know from Finesar, we know
18 from Sequoia Tech, and even Phillips itself tells us, we're supposed to reject
19 those experts who all they do is try to contradict the intrinsic record by
20 trying to provide a definition without support and outside the purview of an
21 expert such as technical skill and technical knowledge. That's all there are
22 experts doing. It should be rejected out of hand.

23 So let's look at Stubler now, and the Stubler ground. Again, it doesn't
24 matter how you resolve this dispute. I'm on slide 18, and if you properly
25 apply the canons of construction and decide that no construction is

1 necessary, the claim is plain on its face, Patent Owner hasn't disputed that
2 Stubler renders obvious or anticipates all claims of the '807 patent. So let's
3 look at the other option. Let's say that you agree with Patent Owner and you
4 go with their claim of construction, the claims are still unpatentable. And
5 let's talk about why that is.

6 I move into slide 25, and on slide 25, we have on the left in blue
7 examples from Stubler, and we have on the right examples in red which are
8 from the '807 patent. I'm going to go through these from slide 25 to slide 26
9 and slide 27. They use the same color coding, but on slide 25 specifically,
10 we're talking about detecting objects in images such as a face or skin color.
11 In Stubler, paragraph 30, it talks about the region metadata. Again, it says
12 the regions can be faces, the region metadata can be a face.

13 It says it uses various well-known techniques. Various well-known
14 techniques may be used to detect region metadata. For one instance, a
15 typical face detection method is described in K.K. Sung, and it gives a
16 citation. And it says a typical model for representing skin color in a
17 chromatic space utilizing histogram analysis, again, for detecting a face, is
18 described in the article by J. Yang, and gives the full citation.

19 The '807 patent does the same thing. It looks for something like skin
20 color to detect a face in similar ways. And it says on the top right box on
21 slide 25, Exhibit 1001, column 8, lines 22 to 48, it says there are various
22 methods for detecting a face image, such that patterns for the face images
23 are stored in advance, or frequency analysis is performed for the image
24 pattern. It is acceptable if one of these methods is performed.

25 So many methods are possible, and it gives a couple. It says, for

1 example, it's possible to employ. Refers to a Japanese patent, and says here
2 may be acceptable if the face image detecting Section 112 uses a face color
3 area detecting section. Again, we're finding faces in the same way as
4 Stubler. We're using, for example, face images, skin color, same method
5 that uses skin color. It goes on. In the bottom of the top right box, it says
6 here the face color is used, and it also refers to detecting a face within a
7 range of skin color. Again, we're looking at the exact same thing to detect
8 the exact same thing.

9 Moving on to slide 26, let's talk about Patent Owner's step that they're
10 trying to add, that precision step to identify a unique individual or unique
11 object. The disclosures of Stubler on the left in the blue box and the '807
12 patent on the right in the red box are the same. Stubler gives one example
13 where it talks about processing the region metadata for similarity by known
14 algorithms. That's highlighted at the bottom of this blue box for paragraph
15 34. It says, as an example, determination of facial similarity is described in
16 M. Turk and A. Pentland Eigenfaces for recognition, and gives a citation.

17 So we're looking at the detected region metadata, the Eigenfaces, and
18 we're finding the same face. That's what Turk says it does. That's what
19 Stubler says Turk does. And so Stubler's telling us that we're doing -- using
20 a known algorithm to perform facial similarity. That's actually the same
21 level of similarity described in the '807 patent. The only description in the
22 '807 patent of this step of facial similarity that Patent Owner's trying to
23 import is shown on the right in the face image similarity detecting section.

24 And it says, the face image similarity determining section, 114, refers
25 to the database so as to check whether or not a similar face image to the

1 detected face image is contained. Here it is possible, not required, to employ
2 a method which is disclosed in a Japanese patent and refers to that patent.
3 Doesn't incorporate it by reference, just refers to it as an example. That's the
4 only disclosure of this step. There's a parallel, step 147 from another figure,
5 that repeats this exact same disclosure. Stubler teaches the same thing.

6 Moving on to slide 27. What happens when we've detected the
7 object? Either the object generally, or the precision object, like a particular
8 face, using Turk's Eigenface method as one example. We see that on slide
9 27. Both of them propose keywords. We're revisiting paragraph 40 from
10 Stubler on the left, and then we have an example from the '807 patent,
11 column 4, lines 39 to 47 on the right.

12 We've already talked about this, but I think it's worth reading at the
13 record. Stubler says that paragraph 40, if captioning or semantic labeling of
14 the acquired images based on the region metadata is desired, the database is
15 searched for any image with region metadata, face, sky, skin, open space, et
16 cetera, similar to those of the acquired images, and then it proposes
17 keywords from the database image.

18 '807 patent on the right says the same thing. The highlighted part at
19 the end. Consequently, if a similar face image is detected, the keyword
20 which relates to the face image is proposed to the user. User can confirm,
21 accept, deny, but it's proposed to them. Again, it's the same. It doesn't
22 matter how you resolve it.

23 One of the points Patent Owner has raised in their briefing is that Turk
24 is not incorporated by reference. That doesn't matter. As we saw, the '807
25 patent doesn't give any example of how it doesn't incorporate or specify an

1 example for the precision that it claims to require, other than referring by
2 reference. Paragraph 34 of Stubler does the same thing. It refers to the
3 example of Turk to identify a unique face using Eigenfaces. That is enough
4 for anticipation.

5 We have the Sherwin-Williams case at the bottom of this slide which
6 affirmed an anticipation finding where the prior art referred to, but did not
7 incorporate by reference the reference that it used to identify a particular part
8 of a claim. Patent Owner cited a number of cases. Apple v. ITC, it cited
9 Bank of America v. Nant Holdings from this board. None of those are
10 appropriate.

11 In Apple, the patent challenger was relying on its expert, and this
12 expert referred to another publication. And there, the claim element that was
13 supposed to be used in the anticipation finding was required from the
14 reference itself. The same is true for Bank of America and Nant Holdings.
15 The actual element wasn't recited at the level of specificity in the claim or in
16 the specification. It is here. You can see that on paragraph 34. Stubler itself
17 discloses this.

18 It says, when we're processing region metadata for similarity, we can
19 determine facial similarity by an example. The claim only recites facial
20 similarity. The spec only recites facial similarity. Turk is just one example.

21 JUDGE DROESCH: Counsel, I have a question for you, just to
22 refresh my recollection. Did this Eigenfaces journal article, was this cited as
23 an exhibit in the papers before us?

24 MR. RODKEY: It is, yes. Exhibit 1010.

25 JUDGE DROESCH: Okay. Thank you.

1 MR. RODKEY: You're welcome. And you'll hear some about -- I'm
2 sure they'll raise it, Patent Owner has made a big deal about alleging that the
3 metadata in Stubler is textual. Maybe it is. Maybe that's an option. It gives
4 a lot of examples that aren't. And those are the ones that we've been relying
5 on. We never actually talk about textual metadata in our petition. We rely
6 on any of Stubler's metadata.

7 And on slide 31, we have some of those examples. So, well, actually,
8 let's go to slide 31st. So, slide 30, paragraph 22 on the left, you can see an
9 example. It's the second highlighted box in paragraph 22. It says, typical
10 metadata includes low-level measurable features, such as color or texture.
11 Color and texture, we've talked about those.

12 Moving on to slide 31, we have examples of those from Stubler.
13 Stubler paragraph 30 on the top left on slide 31. A typical model for
14 representing skin color in a chromatic space utilizing histogram analysis is
15 described in an article by J. Yang, et cetera, gives citation. It's later
16 incorporated by reference.

17 The Yang reference talks about developing a histogram of skin colors
18 because what it had found was skin colors appear in kind of a very narrow
19 range of colors. And so by finding that particular skin color, we can find a
20 face. It also says we can find the same face because every individual has its
21 own skin color mapping. So we have that low-level metadata, the skin color
22 mapping from Yang that we can then compare to other skin colors, regional
23 metadata in the database. To find a similar object, Yang tells us the same
24 face using that mapping.

25 Paragraph 34, we've talked about with the Eigenfaces. And then in

1 the third box on the left side, Yang also talks about Eigenfaces. Yang also
2 tells us, again it's incorporated by reference, that Eigenfaces obtained by
3 performing principal component analysis on a set of faces are commonly
4 used to identify faces, to find the same face. That Eigenface is that low-
5 level metadata stored in the database with the images. Stubler says we
6 compare to find a similar object, to find the same face even, which is Patent
7 Owner's construction that they're trying to defend.

8 I'll breeze through paragraphs 33, 11, and 22. Those really just talk
9 again about color and texture-based representations of the objects. So low-
10 level metadata, Stubler says it's objectively measurable, such as skin color,
11 in order to identify various objects. So we can see from the slides we just
12 talked about, not only does Stubler propose the same steps, it does them in
13 the same way, looking at the same information. That's anticipation. The rest
14 of Patent Owner's arguments all turn back on this claim construction.

15 So I'm turning to slide 32. Patent Owner makes an argument about
16 the object as that term is used in Claim 1. But when you read that, it says as
17 that term would be understood, and it refers again to the similar to the object
18 of the image previously contained in the database, relies solely on this
19 construction. When you reject the construction, or if you accept it, claims
20 are unpatentable.

21 JUDGE TROCK: Counsel, this is Judge Trock. Can you hear me?

22 MR. RODKEY: Yes, Your Honor.

23 JUDGE TROCK: Your Ground 1, that's alternative as 102 and 103, is
24 that correct?

25 MR. RODKEY: Yes, Your Honor.

1 JUDGE TROCK: So if we conclude that you have not met your
2 burden on 102, you're arguing 103 obviousness alternatively, right?

3 MR. RODKEY: Yes, Your Honor.

4 JUDGE TROCK: All right. Thank you.

5 MR. RODKEY: That'll be clear. The steps are disclosed in Stubler,
6 so it is anticipated. I'm on slide 33 now, and Patent Owner's arguments
7 relate to independent claims 7 and 8. Again, rely on the same construction.
8 You reject the construction. There's no dispute. You accept the
9 construction, as we just saw. All of that is taught by Stubler. The dependent
10 claims on slide 34, same thing, refers back to Claim 1, relies on the same
11 construction. Ground 2 on slide 36 is the same. It's relying on its
12 interpretation of Claim 1.

13 Interestingly, it doesn't dispute that the Wang reference renders
14 obvious all of the steps that it talks about in its construction, their reciting
15 Claim 2. And if there are no further questions, Your Honor, I'll offer to
16 balance my time.

17 JUDGE DROESCH: Thank you. I don't believe there's any
18 additional questions. Thank you, counsel.

19 Counsel, before you begin, you wanted ten minutes for reserving for
20 rebuttal?

21 MR. CARMAN: That's correct. Good afternoon, Your Honors. My
22 name is Derrick Carman, and I represent the Patent Owner 138 East in this
23 proceeding.

24 Turning quickly to slide 2, I just want to give the Board a very quick
25 rundown of what I intend to cover during my time, although I'm, of course,

1 happy to answer any questions that the Board has along the way. I want to
2 start with a quick overview of the '807 patent background, and I'm really
3 going to focus on two aspects of that background. One is object detection,
4 and the other one is object similarity determination, because they are two
5 distinct steps in the '807 patent.

6 What I heard my colleagues say was there was a lot of going back and
7 forth between detection and similarity determination. I just want to be very
8 clear about what the distinction is between those two steps in the '807 patent.
9 And I do agree with my colleague that the main dispute lies in the object
10 similarity determination step, and sort of what level of similarity is required
11 by the '807 patent, and how would a person of ordinary skill in the art have
12 understood that term similar to having read the entirety of the '807 patent?

13 So I'll get into claim construction then after the background section, as
14 well as the unrebutted testimony of Dr. Papanikolopoulos, Patent Owner's
15 expert. After we get through claim construction, I'll turn to Ground 1, which
16 is a single reference Ground 102 and 103, and it challenges all claims of the
17 '807 patent, 1 through 14. Then at the end, I'll very briefly touch on Ground
18 2, which challenges only the dependent Claims 2 to 4 and 9 to 12.

19 A quick background on the '807 patent. What's the point of the '807
20 patent? We're trying to come up with techniques for associating and storing
21 keywords with digital image files that are newly received. At the end of the
22 day, we want a record of what keywords should be associated with an image.

23 There's an example record from the '807 patent. We have a number of
24 images. There are three listed here, and we know that within that image is a
25 particular person, Jiro, who has a birthday on January 1, 2003, and they also

1 have a specific relationship with the person who took the picture. They are
2 the second eldest brother, and therefore, of course, a family member.

3 JUDGE HOSKINS: Counsel, this is Judge Hoskins. You were
4 referring to your slide 4 there, correct?

5 MR. CARMAN: That's correct. That is slide 4. Thank you, Judge.
6 Moving on to slide 5 then. I just want to walk through the steps very
7 quickly. The first step we start with is image detection. We receive a new
8 image into the system that we're going to analyze. Moving on then to slide
9 6, we get our first major step here that I mentioned earlier, and that's object
10 detection. I'm going to talk about this in the context of human objects.

11 The '807 patent, at least some of the claims are agnostic to what type
12 of object it is. It could be a human, a car, a tree. It could be any sort of
13 object, but the majority of the examples that are discussed in the '807 patent
14 are in the context of humans, so that's the context that I'll be discussing the
15 invention in.

16 So object detection, as shown here in figure 2 on slide 6, consists of
17 three steps here. We have a human detecting condition inputting section,
18 and the text there on the left tells us that that sets up a condition for
19 determining just whether or not a human is contained in an image. We get a
20 binary determination here. Yes, we have a human, or no, we don't have a
21 human. We also have a face image detecting section, which detects the
22 presence specifically of a human face. So, again, we have a binary
23 determination. Yes, we have a human face. No, we don't have a human
24 face. And --

25 JUDGE HOSKINS: Mr. Carman?

1 MR. CARMAN: Yes.

2 JUDGE HOSKINS: Sorry to interrupt. That part of it, where is that
3 in the claim? Just help me kind of track the claim limitations to what you're
4 walking us through here in figure 2.

5 MR. CARMAN: Sure. So I'm turning now to slide 10, which shows
6 Claim 1 of the '807 patent here, and so that is baked into the object
7 acknowledging section. That's what's doing the object detection there. And
8 it becomes more stark in Claim 2, which is a dependent claim here, which
9 limits Claim 1 to the face embodiment that I was just talking about. And as
10 we can see here, it clearly delineates the contents of the object
11 acknowledging section in that particular embodiment.

12 JUDGE HOSKINS: Thank you.

13 MR. CARMAN: Turning back now to slide 6 of the demonstrative,
14 the '807 patent gives us another potential way in which a face can be
15 detected, which my colleague also mentioned, which is face color area
16 detecting. And so the way that works is we detect whether or not a face
17 image is contained in the image by analyzing the image. And the '807 patent
18 gives us a few different options for how to do that.

19 Moving on to slide 7, now we get into the second major step of the
20 '807 patent, object similarity determination. And so the '807 patent tells us
21 that we can compare the detected face from the prior step to previously
22 stored face objects in the database already, and we can assess the level of
23 similarity between those faces. And based on that level of similarity, then
24 we're going to suggest keywords. The '807 patent gives us a specific way in
25 which we can do this, what's called the Wakayama reference. It's the

1 Japanese unexamined patent application that's referenced in the second
2 bullet point on slide 7.

3 And so we can see here, we have a two-step process, two primary
4 steps here. There are, of course, some ancillary steps. We detect an object
5 first, which gives us the general type of object, such as a human face. And
6 then we have an object similarity determination where we compare that
7 object to previously stored instances of that general type to see if there are
8 matches.

9 Just to round out the steps here to get us to our goal, which is to have
10 an entry that actually has the keywords associated with the image, we have a
11 keyword proposing section. And what that's going to do is it's going to use a
12 priority-based rule set to retrieve keywords that are associated with the
13 metadata that correspond to that specific object from the database and
14 presents it to the user from there. And then the final step, we have a human
15 information inputting section, which allows the user to modify that keyword
16 data. They can add to it, subtract from it, make changes to it.

17 Turning now to slide 10, which again is the language of Claim 1, you
18 can see how those steps each translate into the language of Claim 1. We've
19 got an image storing section. That's our database. That's where we're
20 storing all of our images. And there are three pieces of information that gets
21 stored in that database according to Claim 1. We have the image to be
22 classified. We have keywords. And we have an object of the image being
23 previously contained in the database. So those three things all have to be in
24 the image storing section according to Claim 1.

25 We have our image inputting detection section, which again is just

1 going to detect newly inputted images to be classified. And then we have an
2 object acknowledging section that is going to acknowledge the object, detect
3 the general category of the object at least. We have a keyword proposing
4 section. Does exactly what the name suggests. It proposes keywords. And
5 then we have an object information inputting section, which gives the user
6 the opportunity to edit those keywords.

7 But I want to focus for just a moment on the last limitation -- the last
8 clause of the last limitation. It says that the object information inputting
9 section is for confirming by the user adding or correcting the keyword,
10 which is proposed by the keyword proposing section, when the inputted
11 object acknowledged by the object acknowledging section is similar to the
12 object of the image previously contained in the database.

13 So the similarity determination is baked straight into the language of
14 Claim 1. There's no affirmative step that just says determine similarity. But
15 the language is there. The similarity determination is required. It's a part of
16 the claim.

17 I've already talked a little bit about Claim 2. This is on slide 11 of
18 Patent Owner's demonstratives. But just taking a step back, in the
19 petitioner's reply to the patent owner response, they accused Petitioner of
20 trying to read the face similarity determination step into Claim 1. And I
21 think I heard my colleague make the same argument today. Patent Owner is
22 not trying to read face -- to limit Claim 1 to the context of faces. Claim 1 is
23 object agnostic. It applies to all types of objects. Claim 2 introduces our
24 limitation with respect to faces.

25 I also want to quickly talk about the other two independent claims, 7

1 and 8. I think I heard my colleague say during his argument that the
2 similarity determination was only -- the similarity language was only in
3 Claim 1. That's not true. It's in all of the independent claims. You can see
4 here Claim 7, which is a method, tracks the same language as Claim 1, but in
5 the form of a method.

6 And we have that same language at the end, where the keywords can
7 be confirmed, added, or corrected when the inputted object acknowledged is
8 similar to the object of the image previously contained in the database.
9 Claim 8 -- sorry, was there a question? No, okay. Sorry.

10 JUDGE DROESCH: No question.

11 MR. CARMAN: Claim 8, which appears on slide 13 of Patent
12 Owner's demonstrative, is a computer-readable medium claim that again
13 tracks the same limitations and includes the same language regarding similar
14 to the object of the image previously contained in the database. So that
15 similarity determination is included in all of the independent claims and
16 therefore all of the claims.

17 I'm going to turn next to claim construction, starting with slide 15.
18 And this is the party's main dispute, is what degree of similarity is required
19 between objects in the challenged claims. And it's Patent Owner's position
20 that a person of ordinary skill in the art reading the entirety of the '807 patent
21 would understand the language similar to the object of the image previously
22 contained in the database to mean sufficiently similar to identify the specific
23 object of the image previously contained in the database.

24 Now why would a person of ordinary skill in the art have that
25 understanding? Well, the specification consistently and repeatedly uses

1 similar to refer to specific objects and emphasizes that the goal of the '807
2 patent is to identify specific objects, specific people, over and over again.
3 So here are just a few examples from the '807 patent. It's possible to retrieve
4 the image which contains a specific object among numerous images
5 accurately and efficiently. It's possible to retrieve the image which contains
6 a specific person accurately and efficiently.

7 And when describing the similarity determination, what it actually
8 achieves, the '807 patent says, if it's determined that the face image coincides
9 to the face image which is previously contained -- sorry, which is contained
10 previously, or that the face image is very similar to the face image which is
11 contained previously, the information for such a human is proposed so as to
12 expedite the user to confirm.

13 So the '807 patent is making clear in these statements to a person of
14 ordinary skill in the art that we're not just talking about images that have
15 faces generally in them. That's not very useful. We need a specific face.
16 We need a particular person. That's the goal of the invention and that's what
17 the '807 patent achieves.

18 The example provided in the '807 patent for how to conduct this
19 similarity determination also reinforces this. The Wakayama reference says
20 that you can determine facial similarity by forming a density image of a face
21 so as to classify the category. Classify the category here is just a fancy way
22 of saying identify the specific person. The category is face. Classifying it
23 would be determining which face.

24 The guiding examples of the '807 patent also reinforce this
25 understanding of what similar to means in the context of the claims. The

1 '807 patent talks about a specific person, Jiro, who is detected by the image
2 and by comparing that image with prior images of Jiro, we can identify that
3 specific person again. Here on slide 18 is that same record that we saw
4 earlier where we have a record for the particular person who's identified as
5 the second eldest brother.

6 Moving on to slide 19, the '807 patent discusses how keywords should
7 be proposed to a user. This is something that I didn't hear my colleague talk
8 about a little bit and I think it bears discussing. The '807 patent identifies a
9 hierarchical approach to suggesting keywords. It also uses the word
10 according to a priority.

11 And so we start on the left of this figure. If we identify the specific
12 person of the eldest brother, then that's what gets proposed to the person
13 using the device. It's only if we can't make that determination that we move
14 on to these broader categories such as family, relative, or friend. And if we
15 truly don't know then we can prompt the user to enter new human
16 information or to make a new category.

17 But the '807 patent is clear that we're marching down a line here.
18 We're not just throwing all of the keywords at the user and hoping they pick
19 the right one. We start with the specific person, the eldest brother, and move
20 on from there.

21 So how does the claim language fit in with this claim construction?
22 Well, as we talked about earlier, Claim 1 is object agnostic. It's not limited
23 to any particular type of object, but nevertheless the similarity determination
24 is baked into the claim -- into the language of Claim 1. And so a person of
25 ordinary skill in the art having read through all the examples from the '807

1 patent would understand that similar, as it's used in the claim, means a
2 particular level of similarity.

3 JUDGE HOSKINS: Mr. Carman?

4 MR. CARMAN: Yes.

5 JUDGE HOSKINS: So I think another of the examples I saw in the
6 '807 patent was a car as being the object, is that right?

7 MR. CARMAN: A car is given as an example of an object, yes.

8 JUDGE HOSKINS: So let's just take that other example. What level
9 of specificity is required? Does it have to be just make and model? Is it
10 sufficient to say this car is a Toyota Camry, or does it have to get to the
11 point of, this is a Toyota Camry owned by Mr. Smith, like an exactly
12 particular car?

13 MR. CARMAN: So, it would certainly need to be capable, if it gets
14 two cars that are in fact images of the exact same car, that level of
15 particularity would satisfy the claim language. But I want to walk --

16 JUDGE HOSKINS: Is it required?

17 MR. CARMAN: The capability is required, but I want to --

18 JUDGE HOSKINS: What does that mean?

19 MR. CARMAN: So, what it means is I want to step back to this
20 example here, where we're doing an iterative process here, where we try to
21 identify the same car first, but it's not a foolproof system. I mean, the
22 lighting could be different, there could be situations where you can't identify
23 the same car. And then you can march down to a broader category, if you're
24 unable to identify the specific instance of the car.

25 JUDGE HOSKINS: So then why is the petitioner's claim construction

1 the right one? That is, it just has to be a car?

2 MR. CARMAN: Because that claim construction doesn't capture the
3 necessarily -- so in a device claim here, well, and in all of the claims here,
4 you need the capability to be able to detect that specific car. You need to be
5 able to distinguish between just a car generally, and specific instances of a
6 particular car.

7 JUDGE TROCK: Counsel, this is Judge Trock.

8 MR. CARMAN: Yes.

9 JUDGE TROCK: So my question is why do we have to construe this
10 claim at all?

11 MR. CARMAN: Well, I think you need to construe the claim
12 because, well, for one, the parties have a dispute and so there needs to be
13 some sort of resolution of that dispute. But the point is that, similar to here,
14 is that term is being used in a particular way in the context of the '807 patent.
15 And the claim construction needs to capture that particular use of the word
16 similar.

17 JUDGE TROCK: So why can't we just go with a plain and ordinary
18 understanding of what Claim 1 says on its face? And in particular, we're
19 talking about the last clause of Claim 1, is that correct?

20 MR. CARMAN: That's correct, Your Honor.

21 JUDGE TROCK: All right. So here, it says is similar to the object of
22 the image previously contained in the database. Are you suggesting that
23 someone of ordinary skill in the art wouldn't understand what that means?

24 MR. CARMAN: A person of ordinary skill in the art would
25 understand what that means, but they would understand it in the context of

1 the full disclosure of the '807 patent. It's not proper to simply look at the
2 claim. Claim construction requires an analysis of the claim terms in the
3 context in which they are presented in the patent as a whole. A person of
4 ordinary skill in the art reading the claim is presumed to have read the
5 specification as well as the prosecution history, which we don't have any
6 relevant prosecution history here. But the specification makes clear what
7 “similar to” means in this context.

8 JUDGE TROCK: Right. And your proposed construction
9 incorporates three terms which the petitioner has identified sufficiently
10 similar, identifying specific object. That language is not in Claim 1, but it
11 appears your construction wants us to incorporate those words into the
12 claim, is that correct?

13 MR. CARMAN: I don't think that's exactly right, Your Honor. I
14 think that those words are what similar means in the context of the claim.
15 So by using the word similar in Claim 1 in the context of the '807 patent,
16 those concepts of sufficient and identify and specific, I think that's the third
17 word, those words are incorporated into that concept of similarity once the
18 rest of the patent is read by a person of ordinary skill in the art.

19 JUDGE TROCK: So is it your position then that just being similar is
20 not good enough, is that correct?

21 MR. CARMAN: Well, I think that the question of what degree of
22 similarity -- I guess I would need a clarifying question there, which is what
23 do you mean by similar when you ask that question?

24 JUDGE TROCK: Well, it appears as if you're trying to propose that
25 there be a goal here and that the goal is that whatever it is being

1 accomplished by this claim, that it has to be sufficiently similar to identify a
2 specific object. So that appears to me to be a goal that you're trying to
3 accomplish, is that right? Is that a fair reading of your construction?

4 MR. CARMAN: I wouldn't say it's my goal. I would say it was the
5 inventor's goal, but I think that is correct, yes.

6 JUDGE TROCK: Right. And so when I'm reading the claim
7 language as it's stated, it simply says is similar to the object of the image
8 previously contained in the database. So it appears that there's a conflict
9 here between the language that's already in the claim and the language that
10 you're proposing.

11 So I understand your argument that you want us to do a construction,
12 but I guess my question is what is it about Claim 1, that last clause, which
13 creates some sort of misunderstanding as to what it really means? I mean,
14 on an ordinary, customary basis, because the language that we've got here
15 seems pretty straightforward. As long as it's similar to an object of the
16 image previously contained in the database, that's sufficient.

17 And the language you're proposing appears to be a much narrower
18 construction. It's got to be similar enough so that we can identify a specific
19 object in the database. Am I reading that correctly?

20 MR. CARMAN: I think that's correct, but I think that that is the
21 construction that the specification compels. I think the intrinsic record,
22 through each of the examples, the consistent and repeated use of the word
23 specific in the specification itself, it compels that construction.

1 JUDGE TROCK: Well, you may not know the answer to this
2 question, but if that's the case, then why didn't the applicant put that word in
3 the claim?

4 MR. CARMAN: I'm afraid I don't know the answer to that question.
5 I did not write these claims or this patent application.

6 JUDGE TROCK: Okay. Thank you.

7 MR. CARMAN: So I'm going to jump back in at slide 21 to the claim
8 language as we continue marching through the intrinsic evidence here.
9 Claim 2 limits Claim 1 to a specific type of object, human faces, and it limits
10 the similarity determination to the face similarity determining section within
11 the object acknowledging section. So those are the limitations that are added
12 by Claim 2, as well as specifying a face image detecting section and a
13 human detecting section. So we get context around the similarity
14 determination added in Claim 2.

15 And I think Claim 5 also informs the meaning of “similar to” here,
16 because Claim 5 gives us the negative branch of what happens if we can't
17 detect a similar face, if we can't resolve it at the level of a specific person.
18 Then what we do is we just propose the keywords for the last image, and
19 that makes sense, because oftentimes people take pictures, multiple pictures
20 in a row of a particular person. They all come in together. They get
21 categorized and analyzed sequentially, and perhaps one of those has bad
22 lighting or it's blurry and we're unable to resolve a specific person, so we can
23 just default back to the last option.

24 If the Board is a little unsure about what the intrinsic record compels
25 here, then they should turn to the extrinsic evidence. And here, we have

1 substantial unrebutted expert testimony from Patent Owner's expert, Dr.
2 Papanikolopoulos. He addressed the proper construction of similar to the
3 object of the image previously contained in the database in his declaration
4 that accompanied the Patent Owner response.

5 Petitioner's expert didn't address claim construction at all. In the
6 opening declaration, he simply said plain and ordinary meaning, as is
7 common, and then in the reply that Petitioner submitted, there was no expert
8 declaration that addressed Dr. Papanikolopoulos' opinions. So what we're
9 left with here is substantial extrinsic evidence that supports Patent Owner's
10 construction.

11 Dr. Papanikolopoulos said it's my opinion that the '807 patent
12 describes the invention in such a way that makes clear that the invention
13 requires more than generic similarity between objects, and that's unrebutted.
14 Dr. Papanikolopoulos says the specification describes similarity using
15 language that makes clear to a person of ordinary skill in the art that the
16 level of similarity is higher than generic similarity, it is similarity to the level
17 of a specific object. Again, that's unrebutted.

18 Analyzing the intrinsic record, Dr. Papanikolopoulos says by using
19 words like coincides and very similar, it's my opinion that the specification
20 makes clear to a person of ordinary skill in the art that the '807 patent uses
21 the term similar to mean more than just generic categorical similarity. Once
22 again, that's unrebutted.

23 And finally, the conclusion, this one's a little bit longer, but Dr.
24 Papanikolopoulos says it is my opinion that a person of ordinary skill in the
25 art would understand based on the two-step process of identifying an object

1 generally and then comparing it to previously stored objects to determine
2 whether it is similar to any of the previously stored objects to support the
3 construction of similar to the object of the image previously contained in the
4 database to mean sufficiently similar to identify the specific object of the
5 image previously contained in the database. Again, that's unrebutted.

6 I want to talk very briefly about the Board's institution decision,
7 because at that stage, similarity was interpreted to just mean generic
8 similarity. And there are a few reasons why the Board shouldn't feel bound
9 by that going into the final written decision. The Board didn't have the
10 benefit of the full analysis of claim construction, including the analysis of all
11 of the examples from the specification that lend themselves to Patent
12 Owner's proposed construction. The Board also didn't have the benefit of
13 Dr. Papanikolopoulos' unrebutted expert testimony.

14 And the Federal Circuit has made clear that when the Board becomes
15 convinced that its initial inclinations were wrong, it is perfectly capable of
16 changing its mind at final written decision. And that's what the Board
17 should do here.

18 So what are the implications of this claim construction? Well, let's
19 just walk through here. We have an object information inputting section that
20 performs a particular operation when the inputted object acknowledged by
21 the object acknowledging section is similar to the object of the image
22 previously contained in the database. And we know that the proper
23 construction of similar to the object of the image previously contained in the
24 database is sufficiently similar to identify the specific object of the image
25 previously contained in the database.

1 So thus, any object of the image must be usable to reach that level of
2 similarity. It must be usable to determine whether an inputted object in a
3 new image is sufficiently similar to identify the specific object of the image
4 previously contained in the database.

5 So let's turn to Ground 1 and take a look at Stubler. And I'm on slide
6 31 of Patent Owner's demonstrative here. Stubler does not teach or suggest
7 the image storing section. The image storing section specifically requires
8 that the database includes an object of the image prior to receiving new
9 images. And Petitioner argues that Stubler's disclosure of region metadata
10 discloses the claimed object of the image. It doesn't, because none of the
11 region metadata that Stubler discusses is usable to achieve the level of
12 similarity determination required by the claims of the '807 patent.

13 So what does Stubler tell us about region metadata? It says that
14 region metadata includes detected region features such as face, skin, sky,
15 grass, open space, or background versus foreground. Stubler explains that
16 regional processing yields, quote, high-level feature descriptions and not the
17 high-level features themselves. In other words, what we get out of Stubler
18 for region metadata is a word. We get a word that says face, a word that
19 says grass, a word that says tree. That's what the region metadata is in
20 Stubler.

21 Now this can be generated from lower-level data. Stubler does say we
22 can start with lower-level data and then generate the higher-level data, but
23 that's what we get at the end. It's just the word at the end. And this makes
24 sense based on the examples that we have from Stubler.

1 The first one we have here is the Sung reference, and Sung deals with
2 face detection. Now Sung itself draws a line between face detection and
3 face recognition. And they tell us that Sung is really only trying to
4 determine whether a face or present is not.

5 Now I want to remind the Board, we have two steps here in the '807
6 patent. We have object detection, and we have object similarity
7 determination. Those are separate, distinct steps. Sung, at best, gets us
8 close to object detection, maybe in the context of faces. And I'll let Sung
9 speak for itself. It says clearly, the most critical part of our system is the
10 algorithm for classifying window patterns as, quote, faces or, quote, non-
11 faces.

12 So what do we get out of Sung? We get a binary yes or no on whether
13 there's a face or a non-face in a particular area. So can you use just that
14 binary determination, that thumbs up or thumbs down, to determine whether
15 a specific face with all its complexities is located in a previously-stored
16 object? No. Can't do that.

17 The second reference that Stubler points to is the Yang reference.
18 And Yang is talking about using skin color identification to track a face in
19 an image. And so what Yang tells us is the objective of the system is to
20 provide the following functions in real time. Locating arbitrary human
21 faces, tracking the face, which is just location over time, adapting model
22 parameters based on individual appearance and lighting conditions in real
23 time, which is irrelevant and not pointed -- relied on by Petitioner for
24 anything, and providing face location for modeling applications in real time.

1 So what's the output of Yang? We get a location. We get coordinates.
2 That's what the region metadata is that we get out of Yang, coordinates. Can
3 you use Yang's determination of a location of a face to determine whether
4 that face that's at that location is sufficiently similar to a previously stored
5 face? No.

6 The last example that's pointed to by Stubler for region metadata is
7 Luo. Luo is very similar to Yang in that it's determining the location of
8 objects. Luo teaches us it's an object of the invention to provide a method
9 for detecting the location of main subjects within a digitally-captured image
10 and thereby overcoming some problems in the prior art. So again, all we're
11 getting out of this is location. We're getting coordinates. Like with Yang,
12 you can't use a determination of location to identify whether a specific face
13 was previously stored in the system.

14 So those are the three examples we have of region metadata. That's
15 what Petitioner points to in the petition. And as we can see, none of those
16 are usable to determine whether a similar face of any level of specificity is
17 previously stored in the database. All we get is a binary determination. Yes,
18 there's a face. No, there's a face. Or we get coordinates, the location of a
19 face.

20 Moving on to slide 40. Stubler does not teach the object information
21 inputting section, which again, this is where the similarity determination is
22 actually baked into the language of Claim 1. The proper construction
23 requires the ability to determine whether a sufficiently similar face -- sorry, a
24 sufficiently similar object is previously stored in the database to identify the
25 specific object. And Stubler's regional metadata is not capable of doing that.

1 And we heard a little bit about Turk referenced during Petitioner's
2 opening presentation. And I want to spend some time talking about Turk,
3 because Turk has a number of problems with it. There are two main reasons
4 why Turk isn't sufficient here. The first one is that Turk is not incorporated
5 by reference into Stubler. Now this matters here, because as we've seen, the
6 similarity determination on the level that Patent Owner is suggesting here is
7 required by the claim. It's baked into the language of the claim. That makes
8 it an essential element.

9 This isn't some background knowledge that just any reference can be
10 used to show a POSITA would have had. This is an essential element of the
11 claim, and therefore needs to be included either in the reference for 102 or at
12 least within the grounds for 103. Petitioner doesn't include Turk in the
13 grounds and it's not part of the disclosure of Stubler. It's not incorporated by
14 reference. There's just a passing mention of Turk within Stubler.

15 But even if they could rely on Turk, let's assume for a second that the
16 incorporation by reference problem isn't a problem, which it is, Turk's still
17 not going to solve their problem here. And the reason for that is that the
18 reference to Turk isn't being made where Stubler is talking about
19 comparisons between objects that are newly detected and objects that are
20 previously stored in the database.

21 I'm going to move forward here because we saw -- this is an excerpt
22 from one of the figures from Stubler. And there are two steps discussed
23 here. One of them is clustering where a group of newly received images
24 come in together and they get sorted. They get clustered together. And then
25 after that, then we do the determination in Stubler between the clustered

1 images in the database. The problem is the discussion of Turk relates to the
2 clustering step, not to the similarity determining step.

3 JUDGE TROCK: Counsel, this is Judge Trock.

4 MR. CARMAN: Sure.

5 JUDGE TROCK: Just jumping back briefly about the incorporation
6 by reference point, what's your position on the Sherwin-Williams case cited
7 by Petitioner? That's the one that says that --

8 MR. CARMAN: Oh.

9 JUDGE TROCK: -- you can affirm anticipation even if it's not
10 incorporated by reference because it's an unequivocal disclosure.

11 MR. CARMAN: Right. So the unequivocal disclosure there, and the
12 issue comes down to what is being used to demonstrate. And so here, the
13 element is an essential element of the claim. That's the Bank of America
14 case. So I think the Bank of America case is really more analogous to this
15 situation here, because we have the essential element of similarity. And so,
16 in order to show anticipation, you have to show a disclosure within the
17 reference that corresponds to the claim element.

18 JUDGE TROCK: So is it your position then that Sherwin-Williams
19 would not be applicable here?

20 MR. CARMAN: I think that's correct, Your Honor.

21 JUDGE TROCK: All right. Thank you.

22 MR. CARMAN: Jumping back into slide 45 here and the difference
23 between the clustering and the similarity determination. Actually, I'm going
24 to take a step back here to slide 43, which references paragraph 34 of
25 Stubler. This is the only reference to Turk that appears in Stubler. And

1 paragraph 34 makes clear that it's talking about the clustering step, not
2 similarity determination between the database and the newly received
3 images.

4 It says for other types of metadata, the data may already be
5 represented in a form suitable for clustering. For instance, in the preferred
6 embodiment, time slash date information is used and may be directly
7 subjected to cluster analysis. You're just sorting based on time.

8 In other cases, so now we're talking about cases other than the
9 time/date information clustering. In other cases, for example that of region
10 metadata, the data may need to be processed for similarity by known
11 algorithms. So while it does discuss a similarity analysis here, this is a
12 clustering step. It's a different part of the operation than the similarity
13 determination that's made between objects that are newly received and
14 objects that previously were contained in the database. And that's delineated
15 here in the two steps, 120 and 130, shown on slide 44.

16 Paragraph 31 of Stubler makes clear that these are subsequent
17 different steps. Acquired images are clustered or grouped by metadata
18 similarity. And then once the data is clustered, then the presence of
19 similarities are evaluated between clusters and groups and the images within
20 the database. So while Stubler suggests using Turk's methods for clustering,
21 Stubler does not suggest using Turk's methods for the similarity
22 determination step 130. That's a typo, I apologize, on slide 46. That should
23 be 120 and 130, not 102 and 103.

24 So, very quickly, I just want to touch on Ground 2, which is Stubler in
25 view of Wang. Claims 2 through 4 depend on Independent Claim 1, 9

1 through 12 depend on Independent Claim 8. So once the Board determines
2 that Claims 1 and 8 are not taught by Stubler, then Ground 2 automatically
3 falls away, because there are limitations within the independent claims that
4 have not been shown to be unpatentable.

5 I'll quickly wrap up here with four main points. First one is claim
6 construction. Similar to the object of the image previously contained in the
7 database means sufficiently similar to identify the specific object of the
8 image previously contained in the database. And that ripples through to the
9 object of the image, which must be usable to determine whether an inputted
10 object in a new image is sufficiently similar to identify the specific object of
11 the image previously contained in the database.

12 Petitioner fails to demonstrate by preponderance of the evidence that
13 Stubler anticipates or renders obvious the claimed image storing section,
14 including storing an object of the image. And Petitioner also fails to
15 demonstrate by preponderance of the evidence that Stubler anticipates or
16 renders obvious the claimed object information section, which includes the
17 similarity determination that we've discussed.

18 And then finally, Ground 2 falls away once the Board affirms the
19 patentability of Claim 1. If there are no further questions, I will reserve the
20 remainder of my time.

21 JUDGE DROESCH: I don't believe there are any questions. Thank
22 you, Counsel.

23 MR. RODKEY: All right. I think we can start with the basic part
24 here. The claim construction is wrong. As Patent Owner admitted, the main
25 dispute between the parties is what's the degree of similarity required?

1 Claim 1 doesn't require any degree of similarity. It just says similar. And
2 the example that's given in the '807 patent of a car has no further degree of
3 similarity. It just refers to a car.

4 Judge Hoskins, I think your question about the car was spot on. And
5 Patent Owner admitted that they're trying to read in these additional words
6 that Judge Trock recognized. Three words, two of which don't even appear
7 in the patent, to read a very specific embodiment to identify a unique object
8 into the claim. And they're admitting that they're trying to do that. That
9 fails all of the tenets of claim construction. When you reject that claim
10 construction, slide 18 shows there's no dispute that Stubler either anticipates
11 or renders obvious the claim language.

12 And Patent Owner talked about Figure 2 of Stubler. He was looking
13 at their slide 7. He was talking about the acknowledging step being binary.
14 That's not true. The acknowledging step extracts data such as a color space
15 to allow, in Patent Owner's words, the ability to then determine whether or
16 not that face or that, in their example, car, even though that's not actually in
17 the '807 patent, is the same unique object. And it uses that color space, that
18 face color space, to make that determination. As we saw, Stubler does the
19 exact same thing. And in fact, Patent Owner admits it. So we can use their
20 words.

21 And let's look at Patent Owner's response at Page 34. They say
22 Stubler states that its high-level region metadata is, quote, derived from
23 lower-level data. That's lower-level metadata, e.g. flesh color, sky color,
24 distribution, open space, citing to Stubler paragraph 28, and their own

1 expert. They admit that lower-level metadata includes flesh color. They say
2 it as well at POR 37 to 38.

3 They say, as discussed above, Stubler identifies region metadata
4 containing high-level feature description, clear sky, cloud sky, mixed sky,
5 and, not or, and low-level features, color representation, area coverage,
6 location. Again, citing Stubler paragraph 11, and their own expert. They
7 admit the metadata can be this color representation.

8 And so let's look at what Stubler says in those same types of
9 situations. So let's go back to slide 5. And I'm looking at the bottom of
10 paragraph 22. The same language appears in paragraph 11, but I'm using 22
11 because that's what we have in one of the slides. The very last line, it says
12 similarities between such regions. Those are the regions of the regions. So
13 like the face or the sky or the grass. Similarities between such regions
14 would be calculated on the basis of a combination of high-level and low-
15 level features.

16 Again, we know from above that typical metadata includes low-level
17 measurable features, such as color or texture. Again, that color
18 representation that gets put into and derived from the analysis of the image
19 to determine that there's a face, right?

20 We've seen Sung determines there's a face or not Sung, Yang
21 determines there's a face based on a color histogram. That color histogram
22 is the low-level data. Patent Owner acknowledges that. Stubler says I'm
23 using that low-level data that Patent Owner acknowledged is the low-level
24 data to make my comparison of similarities between my new object and my
25 object in the database.

1 I think we made this real clear in our pre-institution reply, although
2 it's throughout the petition as well, where it says, Stubler's region features or
3 region metadata, the claimed, quote, object of the image, are extracted in
4 order to build a region representation in step 236 of, for example, a face or
5 other object. We're citing there to Stubler 30 and 38. It says the
6 representation of the face is stored in the database for later use to determine
7 facial similarity between the later acquired image and the stored regional
8 features, just like the '807 patent.

9 We talked about that at length in my opening. I'm not going to repeat
10 it here unless you have specific questions, but I think it's real clear, right?
11 We're talking about that chromatic space from Yang as one example and
12 making that comparison. Patent Owner says that the output of Yang is the
13 location and that Yang can't determine a face. That's wrong. Yang tells us it
14 can determine a face. And in fact, Yang says it several places. So I'm
15 looking at Yang, which is Exhibit 1009. I'm on Page 1 to begin with.

16 First, it's interesting that Yang, as we already talked about, refers to
17 Eigenfaces, which it says is commonly used to identify faces specifically.
18 And then Yang says -- again, I'm in the left column of Page 1, that its
19 system, after locating the face, the system extracts additional features to
20 match a particular face. That's identifying a specific face. Yang explicitly
21 says this. Patent Owner is just simply wrong.

22 At the top right, it says in addition to the skin model used to register
23 the face, again, to later redetermine the same face. On Page 1, the right
24 column under two, tracking human faces, Yang makes the important
25 notation. In order to track a human face, the system not only needs to locate

1 a face, but also needs to find the same face in the sequence of images. And
2 it does this. It does it by using the Yang color histogram that Stubler
3 incorporates by reference.

4 And then Stubler specifically identifies as Stubler's way of
5 determining if there's a face. And storing that metadata, that low-level
6 metadata of the histogram, as Patent Owner acknowledges in paragraph 11,
7 to make that comparison to another face in the database. So it's using that
8 for skin color. So that's Yang. They're simply wrong.

9 Yang even notes, Page 3, under 3.2, skin color model adaptation. It
10 says although human skin colors fall into a cluster of chromatic color space,
11 skin color models of different persons differ from each other in mean and/or
12 variation. Even under the same lighting conditions, background colors, such
13 as colored cloths, may influence the skin color and appearance. Again,
14 everyone has their own face. Everyone has their own face colors and skin
15 colors. Yang says that. Yang even says we find the same face using that
16 histogram that Stubler incorporates by reference.

17 And just to be real clear, Stubler says that it uses this low-level
18 metadata. We've seen paragraphs 22 and 11. But Stubler also says it
19 paragraph 12, an association between the semantic label or keyword and the
20 underlying similar features is maintained to facilitate the subsequent
21 automatic extension of these labels based upon similar features. If images
22 are being added to an existing database and similarities are found between
23 unlabeled regions of the new images and labeled regions within the existing
24 database, these labels are extended to the unlabeled set. Again, using that
25 low-level metadata histogram, et cetera.

1 Paragraph 35 is similar. Again, Patent Owner cited this, as we just
2 saw. They even put it on the slide. What they said is if similarities are
3 found at step 130 between the acquired images and the database images,
4 then the pre-existing captions or semantic labels from the matched clusters
5 and groups in the database are extended, step 140, to the acquired images.
6 What Patent Owner omitted is the next sentence. An association may be
7 maintained between the caption or semantic labels and the underlying low-
8 level similar feature, a similar low-level feature, to facilitate the automatic
9 extension of captions or semantic labels for new images.

10 Again, Patent Owner admits, it's in their POR. It's in Stubler. We've
11 seen it multiple times. Those low-level features are things like color
12 representation, color histogram, Eigenface, something that is a
13 representation. Patent Owner said the object can be a representation. The
14 DI recognized that this can be a representation. The DI is right.

15 As far as Claim 1, the DI referenced -- or the decision on institution,
16 DI, at Page 15 says we do not agree with Patent Owner's arguments because
17 they are not commensurate in scope with the limitations of Claim 1. Claim 1
18 does not recite or require Patent Owner's specific proposed limitations.
19 Claim 1 merely recites generic similarity as follows. When the inputted
20 object, ellipses, is similar to the object of the image previously contained in
21 the database. And then it goes on to recognize that Stubler builds its
22 regional metadata representations. Again, color histograms, Eigenfaces,
23 color spaces, the exact same that we saw in slides 25 to 27 of Petitioner's
24 demonstratives in my opening.

1 To build that representation, Stubler maintains that association
2 between the image, the object, keyword, it finds new images, similar
3 metadata, comparison, proposes keywords. There's absolutely no difference
4 between that and the '807 patent. And also, it finds the same face or the
5 same object because it's using that low-level metadata that's the same type of
6 data in the '807 patent.

7 We agree with Patent Owner that Claim 1 is agnostic, and that's
8 important. So let's look at slide 3. Claim 1 doesn't recite a face. Patent
9 Owners more or less said they're trying to read in the steps of Claim 2 but
10 for the language of face. If all those steps were in Claim 1, Claim 2 could
11 simply say where in the object is a face? There's no reason to have all these
12 additional steps that are recited in Claim 2, nor is there any evidence and
13 specification to do that, especially for other objects when Claim 1 is object
14 agnostic.

15 Patent Owner referred to the hierarchical approach. There's no
16 hierarchical approach to keywords in Claim 1. In fact, they're independent
17 claims. By definition, Claim 1 doesn't have to have that hierarchical
18 approach. Patent Owner called this a goal. Okay. That's fine. It can have a
19 goal. But Claim 1 doesn't recite that goal. That goal is recited in Claims 9
20 to 14.

21 There was a question about a car, and Patent Owner said that the
22 capability to identify the unique car should be required under their
23 construction. Well, that gets us all the way back to slide 15. Which of these
24 are sufficiently similar? What level of degree is required to be sufficiently
25 similar to identify the unique car? We don't know.

1 And we know from the case law that -- and, for example, the Interval
2 Licensing case that we cite in our reply, whenever we have a term of degree
3 like sufficiently similar, we need an objective boundary that is reasonably
4 certain to find the delineation of that term of degree like sufficiently similar.
5 We have none of that. This claim construction would render the claim
6 invalid for indefiniteness. That's a proper way to go about claim
7 construction. The Federal Circuit has, on at least a couple of occasions,
8 found the claim constructions were improper, because they would have
9 rendered the claim indefinite.

10 And we don't really need to get into those, but it's part of claim
11 construction. You don't need to decide it's indefinite. You just need to look
12 at it and say it would be indefinite, can't be the right construction. They also
13 admit they're really trying to take the plain language of similar and turn it
14 into a lexicography. It's got to be this sufficiently similar to identify an
15 object. That can't be right. We have a very plain Claim 1. That language is
16 entirely consistent, that it can be just generic object similarity. I found a cat
17 in my new image. I have cats in my database. I can propose the keyword
18 cat or car or dog. And that helps. That achieves the goal of the '807 patent.

19 One goal of the '807 patent is to help the user by facilitating the
20 keyword proposal. By proposing the keyword cat, I don't have to scroll
21 through dog and car and human and Jiro and any other keyword. It's starting
22 it there for me. So it does help. It does make it more efficient.

23 I believe there's a question, maybe we don't know. Why didn't the
24 applicant put these limitations into Claim 1? I think it's pretty easy. They
25 didn't put them in because they didn't claim it. They knew how to say a

1 specific object. They said it, as Patent Owner pointed out, several times
2 throughout the specification. They never put it in Claim 1. They could
3 have. They could have said very similar. They could have put in a
4 similarity to determine this stuff, but they never did. They put that in Claim
5 2.

6 There was the discussion of Dr. Papanikolopoulos. Again, it's
7 extrinsic evidence. We can resolve this on the intrinsic record. And we've
8 cited several cases, Phillips included, that you're supposed to reject that out
9 of hand when he's contradicting the intrinsic record, which he is.

10 And so let's talk about Sherwin-Williams. Sherwin-Williams is
11 applicable here. Patent Owner basically just said it's not. And the
12 distinction that they tried to make was whether or not there's an essential
13 element of the claim. But if we go back to even slide 3, we can see similar
14 to the object of the image previously contained in the database. All that it
15 requires is similar.

16 Even if we're looking at incorporating such language as from Claim 2,
17 and I'm going to slide 10, Patent Owner is more or less, as I understood their
18 argument, said that the similarity they're trying to incorporate is essentially
19 akin to the face image similarity determining section of Claim 2, but not for
20 a face. It's for any object. Well, what does that say? It says, for detecting a
21 face image which is detected by the face image detecting section so as to
22 detect a similar face image stored in the database according to the detected
23 face image. Again, it just says similar, similar face.

24 So what do we have in Stubler? I'm on slide 26 now. Again,
25 paragraph 34 says that we are determining facial similarity. Claim 2 used a

1 lot of words. Claim 1 used fewer words. Patent Owner is using several
2 words, but again, all that's required in any of those is similarity. We're
3 getting facial similarity out of Turk based on the clear disclosure of Stubler,
4 and we know from Sherwin-Williams that that is an unequivocal disclosure
5 of what is in Turk.

6 There is no claim element that says we have to use a specific method.
7 In fact, when you look at the right of slide 26, no method is recited at all in
8 the '807 patent. It just says we're determining facial similarity, and by the
9 way, here's one example. In order to invalidate the claim, the prior art only
10 has to teach the level of the claim and the level of the specification. Both of
11 those are met here. Only one's required.

12 Last, there was discussion of clustering in Turk, and Turk's clustering
13 does get to an individual face. So what happens in Turk with the clustering,
14 right? We develop the Eigenfaces, that low-level metadata. From that, we
15 can get a specific face.

16 The clustering, all it does is says I have a batch of images, and what
17 am I going to do with those images? I'm going to find all the faces that have
18 this Eigenface, let's say that's Kevin, and I'm going to find all the faces that
19 have this other Eigenface, let's say that's Alissa. And then I'm going to go to
20 the database and I'm going to find the matching metadata for Kevin and
21 label all those Kevin. I'm going to find all the metadata matching Alissa and
22 label all those Alissa. It does the same thing. It just does it better. It does it
23 for a batch.

24 So we still get there even with Turk, even for the clustering, because
25 step 140, that follow step 130, is looking for that clustered metadata in the

1 database. If there are no further questions, all the claims should be held
2 unpatentable on both Grounds 1 and Ground 2.

3 JUDGE DROESCH: Thank you, Counsel. I don't believe there's any
4 questions.

5 MR. CARMAN: Just a couple of points quickly before I wrap up.
6 One, we saw Petitioner go into Yang and talk about how Petitioner thinks
7 that Yang does identify specific faces and determine similarity at the level of
8 identifying a specific face. Two issues with that. One is I would object to
9 that argument to the extent it hasn't been presented before.

10 But even if we look at Yang specifically, what Yang tells us is it's not
11 identifying a specific face by tracking or doing any sort of similarity
12 comparison. What it's doing is it's tracking a face over time across multiple
13 images in a video file. So it's taking the color space and saying, okay, I have
14 a color space at location 1. Then I go to the next image. I have the same
15 color space generally at location 2. So I can infer that the face has moved
16 from location 1 to location 2. But it's not saying, okay, I'm comparing the
17 color spaces to identify a specific person from a plurality of people. It's just
18 tracking the movement over time. That's what Yang is really targeting there.

19 And then Petitioner's counsel also mentioned clustering there at the
20 end, but he said it himself. All it does is batch images. That's what the
21 clustering does, and that's what the disclosure of Turk is being used for. It's
22 just to batch images. It's not being used -- what you didn't hear him say was
23 that Turk is being used to compare those batched images with the objects
24 that are previously stored in the database. Because Stubler doesn't say that.

1 So he can't say that. Nowhere does Stubler say use Turk to determine this
2 similarity determination.

3 And the last point that I'll make just on the point of claim construction
4 is Petitioner wants to ignore the specification. They want to look at the
5 claim language and say, oh, the claim language is clear. The Federal Circuit
6 has told us and the Supreme Court has told us that that is not proper. You
7 have to interpret the claims in the context of the specification in which they
8 are presented.

9 While the Board can't read limitations into the claim, that's not what
10 Patent Owner is asking the Board to do. We're asking you to take a holistic
11 view from the perspective of a person of ordinary skill in the art and to
12 interpret what a person of ordinary skill in the art would understand the word
13 similar to mean in the context of those claims, having read the rest of the
14 specification. Petitioner --

15 JUDGE TROCK: Counsel, this is Judge Trock.

16 MR. CARMAN: Yes, Your Honor.

17 JUDGE TROCK: What's not clear about that last clause of Claim 1?

18 MR. CARMAN: Well, I think that similar has a lot of contextual
19 meanings. The context in which the word similar is used can mean different
20 things depending on the context. And here, it's being used in a particular
21 context, this determining similarity between objects. And so I think that
22 context requires the Board to go back to the specification and say, okay,
23 well, given the context in which the term similar is used, what would a
24 person of ordinary skill in the art understand similar to mean?

1 JUDGE TROCK: Well, isn't it sufficient for similarity to rely on what
2 the patent describes as determining the difference between a human and a
3 car?

4 MR. CARMAN: I don't think the patent says that that's the distinction
5 between similarity --

6 JUDGE TROCK: No, but it uses it as examples.

7 MR. CARMAN: Those are examples of objects, yes.

8 JUDGE TROCK: Well, that's right. So isn't that sufficient? If I've
9 got a photograph of an object in a picture which happens to be a car, isn't it
10 sufficient to provide keywords relating to cars as opposed to providing
11 keywords relating to humans?

12 MR. CARMAN: I don't think so, Your Honor, because that car
13 determination, car versus human, that's determined in step 1, in the detection
14 step, the object detection step. You wouldn't even need the similarity
15 determining step if you had already detected that it was cars. You have to --

16 JUDGE TROCK: But it's still proposing keywords. I mean, are you
17 suggesting that even if I got a picture of a car, it's okay to propose keywords
18 that have to do with humans?

19 MR. CARMAN: Not at all, Your Honor.

20 JUDGE TROCK: Okay. So that's my point. If you've got a picture
21 and it's got an object in it, and the object happens to be a car, part of what's
22 going on here in Claim 1 is proposing keywords. Is it not?

23 MR. CARMAN: That's correct.

1 JUDGE TROCK: Okay. So why would you want to propose
2 keywords having to do with people when you've got pictures of objects that
3 are cars?

4 MR. CARMAN: That's not within the scope of Patent Owner's
5 proposed construction.

6 JUDGE TROCK: No, but I'm asking you that question, because I'm
7 trying to understand the impact here of Claim 1 and how you're reading it.
8 So isn't it one of the purposes of this claim to propose keywords to the user
9 so they can be affixed to these particular objects that are in these pictures?

10 MR. CARMAN: Yes.

11 JUDGE TROCK: Okay. So isn't it sufficient, then, to propose
12 keywords that have to do with that object, such as cars, when I've got an
13 object that would happen to be a car, as opposed to proposing keywords that
14 have to do with people?

15 MR. CARMAN: I don't think that question makes sense, because
16 what you're -- the choice is not between proposing a keyword for cars and
17 people. The choice is between proposing keywords for, say, a Ford Ranger
18 versus a Dodge Dakota. That's the choice that the similarity determination is
19 making.

20 JUDGE TROCK: So you're proposing at least that level of similarity?

21 MR. CARMAN: Yeah, absolutely.

22 JUDGE TROCK: Okay. So where is that in Claim 1?

23 MR. CARMAN: I think that that is baked into the similarity
24 determination when that term is read in light of the specification.

1 JUDGE TROCK: So your argument is that it's not good enough to
2 separate the proposed keywords into categories such as cat, dog, horse, car,
3 people. That it's got to be more specific than that.

4 MR. CARMAN: That's correct.

5 JUDGE TROCK: It's got to be a keyword, my sister, my brother, my
6 mother, my father. Is that what you're suggesting?

7 MR. CARMAN: I think that's correct, yes.

8 JUDGE TROCK: Okay. Then where is that level of specificity in the
9 claim language?

10 MR. CARMAN: The only answer I have to that is that --

11 JUDGE TROCK: Because frankly, Counsel, I hear your arguments. I
12 think I understand them, but I just don't see it in the claim language. And
13 I'm not ignoring the specification and what it describes, because it does
14 describe choices between humans and cars, does it not?

15 MR. CARMAN: At the object determining section, it discloses that
16 level of specificity.

17 JUDGE TROCK: And so that has nothing to do with the keywords
18 being proposed?

19 MR. CARMAN: No, because you have to go through --

20 JUDGE TROCK: It's almost like you're arguing I have to ignore the
21 rest of this claim because something occurred earlier in the claim and now I
22 have to ignore it. I have to ignore the determination that I've either got a car
23 or a person when it comes down further in the claim to propose a keyword.
24 And that's where I get disconnected from your argument.

1 MR. CARMAN: I don't think you're ignoring the step. It's a
2 subsequent step. So the first step is general category. What do we have?
3 That's the object acknowledging step, the determination, step 1. Step 2 is,
4 okay, now that I've got that category, now I need to do the similarity
5 determination to narrow it down to the specific instance within that category.

6 JUDGE TROCK: Okay. So walk me through this, then. Where in
7 the image storing section, the image inputting detecting section, the object
8 acknowledging section, is there a determination that I've either got a car or a
9 person?

10 MR. CARMAN: That's in the object acknowledging section where it
11 says it acknowledges an object.

12 JUDGE TROCK: Where does -- point this out to me in the claim,
13 would you please?

14 MR. CARMAN: The best I can offer you is it says object
15 acknowledging section to acknowledge an object.

16 JUDGE TROCK: Okay. So I've got an object. It doesn't tell me that
17 there's a distinction between one and another. Where is that? Where does it
18 say you've got to decide here whether you've got a car or a person or a cat or
19 a dog? It just says you're acknowledging that there's an object. The object
20 could be anything according to this claim. Is that right?

21 MR. CARMAN: The object could be anything, yes.

22 JUDGE TROCK: Right. So where does it describe that you made a
23 distinction as to what type of object is being acknowledged?

24 MR. CARMAN: I mean, it's part of this process of the object
25 acknowledging section followed by the similarity determination. It's a

1 narrowing down process, and the way in which the keywords are proposed
2 hierarchically points that out.

3 JUDGE TROCK: Well, that's the second question I have to you that
4 Counsel brought up. Where is that hierarchy in Claim 1?

5 MR. CARMAN: The hierarchy itself is not explicitly claimed in
6 Claim 1. But it --

7 JUDGE TROCK: So then why does it need to be followed for Claim
8 1 if it's not claimed?

9 MR. CARMAN: Well, I think it's supporting evidence of how a
10 person of ordinary skill in the art would understand "similar to".

11 JUDGE TROCK: All right. Can you point out to me in the
12 specification where this determination in this object acknowledging section
13 has already been decided, and the particular level of specificity which you
14 appear to be arguing here?

15 MR. CARMAN: Could you repeat that question for me, please, Your
16 Honor?

17 JUDGE TROCK: I think you're arguing that the object
18 acknowledging section is the one that determines the level of specificity,
19 unless I'm misunderstanding your argument.

20 MR. CARMAN: Claim 1 does not require the level of specificity to
21 be determined with any particular element. It requires the similarity
22 determination to be made, but it doesn't require it to be in a specific section,
23 is the term that's used in the claim. It can occur in any --

24 JUDGE TROCK: Then I must misunderstand your argument, because
25 I thought you're arguing to me that that's already been done by the time we

1 get to the object acknowledging section, or it happens during the object
2 acknowledging section.

3 MR. CARMAN: Oh, I apologize. I misunderstood your question. So
4 the object acknowledging section acknowledges the inputted object. So
5 that's where kind of our initial determination happens. Let me find the --
6 right, the object acknowledging section. This is column 7, lines 29 to 33.
7 The object acknowledging section acknowledges whether or not, that should
8 be or not, a specific object is contained in an image by analyzing the image.
9 For a specific example, a case in which the object is a human is explained
10 later. So you're acknowledging the object, and one of those objects you
11 could acknowledge is a human.

12 JUDGE TROCK: As opposed to a car, correct?

13 MR. CARMAN: Yes, correct.

14 JUDGE TROCK: Okay. That's what I thought. So my point is, now
15 that you've got this distinction between human and car, doesn't that feed
16 down into the proposed keywords?

17 Sure, here are keywords related to cars, because you've got a car.
18 Here are keywords related to humans, because you've got a human. So how
19 does it need to be any more specific than that? That's the part where I get
20 lost in your argument.

21 MR. CARMAN: I think it needs to be more specific than that,
22 because the claim tells us we have to do a similarity determination. If the
23 claim didn't say anything about similar to, then I think you would be correct,
24 that you could just spit out all of the terms related to cars, or all the terms
25 related to any person that you happen to have a picture of in your phone, and

1 we could be done. But there has to be a subsequent similarity determination
2 step, and that step has to do something.

3 So, if we've already figured out that we've got a person, not a car,
4 what is that similarity step left to do? Well, it's going to tell us which
5 specific person we have.

6 JUDGE TROCK: Okay. And then so this is where the argument goes
7 to Petitioner, where he now says, well, that's Claim 2, not Claim 1. You
8 would agree with me that Claim 1 is broader than Claim 2, correct?

9 MR. CARMAN: Yes.

10 JUDGE TROCK: Okay. So, that's the argument from the petitioner.
11 Their position is that you seem to now be going into Claim 2, trying to grab
12 that level of specificity, and bring it in to or incorporate it into what you call,
13 baked in, to Claim 1.

14 MR. CARMAN: I disagree with their characterization of our
15 argument, because the limitation that's added in Claim 2 is limiting it to
16 faces. That's the main limitation. There's nothing in Claim 2 that identifies
17 a heightened level or additional level of similarity beyond what's already in
18 Claim 1. What Claim 2 is narrower with respect to is, what type of objects
19 do we have? Specifically, we have a face.

20 JUDGE TROCK: Well, that would be a human, right?

21 MR. CARMAN: Yes.

22 JUDGE TROCK: Okay. So, isn't that the determination that you're
23 telling me is being made in Claim 1? We've decided whether or not we've
24 got a human or a car, and now we go to Claim 2. Okay, we've got a human.
25 What human?

1 MR. CARMAN: Yes, so Claim 2 specifies that we did detect a
2 human in Claim 1. Claim 1, you may have not detected a human. You may
3 have detected a car. But in Claim 2, if you detected a car, you're out of
4 Claim 2's scope at that point. You're only in Claim 1 land.

5 JUDGE TROCK: Right. So, I guess my understanding then of your
6 argument is that once there's been a determination of a broad category of
7 objects, which is cars versus humans versus cats, dogs, houses, whatever it
8 may be, boats, that at some point in time in the process of this claim, you've
9 got to decide which boat, which human, which car, which cat, which dog. Is
10 that your argument?

11 MR. CARMAN: Correct.

12 JUDGE TROCK: All right. Thank you.

13 MR. CARMAN: All right. If there are no further questions, we'll
14 wrap up there.

15 JUDGE DROESCH: It doesn't look like there's any additional
16 questions. Thank you, Counsel.

17 MR. CARMAN: Thank you.

18 JUDGE DROESCH: All right. Thank you Counsel for your
19 presentations today. We're be adjourned. And please stay in the room to
20 answer any questions that the court reporters may have. Thank you.

21 (Whereupon, the above-entitled matter went off the record at 3:54
22 p.m.)

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