

UNITED STATES DISTRICT COURT
SOUTHERN DISTRICT OF NEW YORK

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CHEWY, INC.,	:	
	:	
Plaintiff,	:	
	:	21-cv-1319 (JSR)
-v-	:	
	:	<u>OPINION AND ORDER</u>
INTERNATIONAL BUSINESS MACHINES	:	
CORPORATION,	:	
Defendant.	:	
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JED S. RAKOFF, U.S.D.J.

This suit concerns a number of patents that claim improvements to web-based technologies. Before the Court are the motion for summary judgment of plaintiff Chewy, Inc. and the cross-motion for partial summary judgment of defendant International Business Machines Corporation ("IBM"). After careful consideration of the briefs and applicable law, the Court grants Chewy's motion in full and denies IBM's motion as moot.

BACKGROUND

The Court here assumes the parties' familiarity with the facts and prior proceedings of this case. As relevant here, after IBM sent Chewy a July 6, 2020 letter alleging that Chewy infringed four of IBM's patents by operation of its website, Chewy.com, and mobile applications, the parties exchanged letters and competing claim charts for several months. Chewy then filed the instant action on February 15, 2021, seeking a

declaratory judgment of non-infringement as to those four patents - U.S. Patent Nos. 7,072,849 (the "'849 patent"), 9,569,414 (the "'414 patent"), 7,076,443 (the "'443 patent"), and 6,704,034 (the "'034 patent").

On April 19, 2021, IBM filed its answer along with counterclaims for infringement of those same four patents. Then, on May 24, 2021, IBM filed its amended answer and added a counterclaim for infringement of a fifth patent - U.S. Patent Nos. 7,496,831 (the "'831 patent")

Chewy moved to dismiss four of IBM's infringement counterclaims, arguing that IBM did not plausibly allege infringement of two of the patents and that the claims of each of the four patents are invalid as abstract ideas under 35 U.S.C. § 101. The Court denied plaintiff's motion by bottom-line order dated August 4, 2021 and issued an opinion setting forth the reasons for that order on August 23, 2021. See ECF No. 66 (Chewy, Inc. v. Int'l Bus. Machines Corp., 2021 WL 3727227, at *1 (S.D.N.Y. Aug. 23, 2021)). On August 18, 2021, Chewy filed its answer to IBM's counterclaims.

On October 8, 2021, following extensive briefing, the Court conducted a lengthy Markman hearing in connection to the parties' claim construction disputes, including Chewy's contentions of indefiniteness as to certain of the asserted claims. The Court subsequently issued its Markman Order,

adopting various claim constructions and holding the one independent claim of the '414 patent to be invalid for indefiniteness. See ECF No. 90 ("Markman Order") (Chewy, Inc. v. Int'l Bus. Machines Corp., 2021 WL 5225685, at *1 (S.D.N.Y. Nov. 9, 2021)).

Chewy now moves for summary judgment on IBM's remaining infringement claims, arguing that there is no genuine issue of material fact that Chewy does not infringe any of the asserted claims as well as that all of the asserted claims of the '443 and '849 patents are invalid. IBM cross-moves for partial summary judgment of no anticipation or obviousness for the asserted claims of the '831 patent.

THE PATENTS

I. The '849 Patent

The '849 patent claims a method for presenting advertising to a user of an interactive service in a manner intended "to minimize interference with retrieval and presentation of application data" by, among other things, "storing and managing" such advertising at the user's reception system – that is, the user's terminal – before it is "called [for] by the respective user reception system." ECF No. 1-1 ("Patent '849") at 1:16-28, 3:37-42.

The patent also claims a method of "individualizing the advertising supplied to enhance potential user interest by

providing advertising based on a characterization of the user as defined by the user[']s interactions with the service, user demographic and geographical location.” Id. at 3:24-29; see also id. at 3:54-56 (the selected advertisements are “individualized to the user based on, as noted, the user’s prior interaction history with the service, demographics and local[e]”). IBM is asserting claims 1, 2, 12, 14, and 18 of the ‘849 patent.

Claim 1, on which claim 2 depends, recites as follows:

1. A method for presenting advertising obtained from a computer network, the network including a multiplicity of user reception systems at which respective users can request applications, from the network, that include interactive services, the respective reception systems including a monitor at which at least the visual portion of the applications can be presented as one or more screens of display, the method comprising the steps of:
 - a. structuring applications so that they may be presented, through the network, at a first portion of one or more screens of display; and
 - b. structuring advertising in a manner compatible to that of the applications so that it may be presented, through the network, at a second portion of one or more screens of display concurrently with applications, wherein structuring the advertising includes configuring the advertising as objects that include advertising data and;
 - c. selectively storing advertising objects at a store established at the reception system.

Id., claim 1.

Unasserted claim 8, on which claim 12 depends, recites as follows:

8. A method for presenting advertising in a computer network, the network including a multiplicity of user reception systems at which respective users can request applications that include interactive services, the method comprising the steps of:
- a. compiling data concerning the respective users;
 - b. establishing characterizations for respective users based on the compiled data; and
 - c. structuring advertising so that it may be selectively supplied to and retrieved at the reception systems for presentation to the respective users in accordance with the characterizations established for the respective reception system users, wherein structuring advertising includes supplying advertising data to the reception system and storing a predetermined amount of the advertising data in a store established at the respective reception systems.

Id., claim 8.

Finally, claim 14, on which claim 18 depends, recites as follows:

14. A method for presenting advertising obtained from a computer network, the network including a multiplicity of user reception systems at which respective users can request applications from the network that include interactive services, the respective reception systems including a monitor at which at least the visual portion of the applications can be presented as one or more screens of display, the method comprising the steps of:
- a. structuring applications so that a user requested application may be presented, through the network, at a first portion of one or more screens of display;
 - b. separately structuring the advertising in a manner compatible to that of the applications so that advertising may be presented, through the network, at a second portion of one or more screens of

display concurrently with any one of a plurality of user requested applications,

c. configuring the advertising as objects that include advertising data, and

d. selectively storing advertising objects at a store established at the reception system.

Id., claim 14.

As reflected above, both independent claim 1 and independent claim 14 include a claim limitation of "selectively storing advertising objects at a store established at the reception system." At the Markman hearing, the Court heard the parties' arguments as to the proper construction of this claim limitation, with the primary dispute being "whether 'advertising objects' must be 'pre-fetched,'" that is, whether "the user's system must download and store the advertising in advance, before it is needed for viewing." Markman Order at 8-9. Ultimately, the Court, agreeing with the position put forward by Chewy, held that "selectively storing" does entail pre-fetching, but, in order to avoid the inclusion of jargon in the claim construction, adopted the following construction of the claim limitation: "retrieving advertising objects and storing at a store established at the reception system in anticipation of display concurrently with the applications." Id. at 13.

The Court's Markman Order also construed the term "characterization(s)," which appears in unasserted independent

claim 8, on which claim 12 depends, as "targeting criteria for users as defined by interaction history with the service and/or such other information as user demographics and locale." Id. at 20.

IBM alleges that Chewy's website and mobile applications infringe the '849 patent because when accessing their websites or mobile applications, users and their computer systems may "cache" certain images (including what IBM asserts is advertising data) by downloading the images and storing them locally. IBM's allegations also rest on certain product carousels appearing on Chewy's website and mobile applications, which suggest products to users related to the page they are currently viewing. See generally ECF No. 158-5 ("Schmidt Inf. Rpt. Ex. C"); ECF No. 158-6 ("Schmidt Inf. Rpt. Ex. D").

II. The '831 Patent

The '831 patent is directed to "a method and system for uncluttering and reformatting a web page before presenting the web page to a user." ECF No. 139-1 ("Patent '831") at 1:9-10. "Specifically, the patented method unclutters hyperlinks using a proximity policy that reformats hyperlinks by looking at their spacing relative to other hyperlinks." Markman Order at 5 (citing Patent '831 at 3:7-15). "The inventors recognized that when numerous hyperlinks were packed into a small area it became difficult for users to interact effectively with the webpage."

Id. The patented method solves this problem by “automatically unclutter[ing] and reformat[ing] a webpage to address the spacing between the link[s] before presenting [the page] to a user.” Id. (citing Patent ’831 1:7-10). IBM is asserting claims 1, 7, and 10 of this patent.

Claim 1, on which claims 7 and 10 depend, recites as follows:

1. A computer implemented method in a computer system for presenting a page, the method comprising:
 - receiving a page;
 - rendering the received page on a virtual display to form a rendered page;
 - determining whether the rendered page falls within a proximity policy;
 - responsive to determining that the rendered page does not fall within the proximity policy, reformatting the rendered page on the virtual display to fall within the proximity policy to form a reformatted page, wherein the proximity policy defines a minimal spacing between links of a plurality of links within the page; and
 - presenting the reformatted page to a user.

Id., claim 1.

In analyzing the parties’ proposed constructions regarding this patent, the Court considered the issues raised by the parties and ultimately adopted Chewy’s proposed constructions with some slight modifications. Specifically, the Court construed “virtual display” to mean “a web browser unit onto

which the page is projected prior to displaying it to the user” and “proximity policy” to mean “user-defined policy specifying spacing rules for hyperlinks.” Markman Order at 52-63.

IBM alleges that Chewy infringes on this patent because of the way in which its website provides the user’s browser with different instructions regarding the style and format of the rendered page depending on such factors as the width at which the browser has been set. See generally ECF No. 158-3 (“Cockburn Inf. Rpt. Ex. D”).

III. The ‘034 Patent

The ‘034 patent is directed to a method and apparatus for magnifying web content (“objects”) based on the type of the content (e.g., text or images) being enlarged. See ECF No. 1-4 (“Patent ‘034”) at 11:13-22. If the cursor is moved over a portion of text, for example, the text will be displayed in an increased font size. See id. at 5:16-41. If the cursor instead hovers over an image, a larger version of the image will be displayed. See id. at 5:42-46. And if the cursor hovers over an audio object, its volume will be increased. See id. at 7:22-25.

The ‘034 patent recognizes that tools were previously “available for magnifying portions of the screen for a user.” Id. at 2:6-7. But these tools “magnif[ied] a portion of the screen without regard for the type of content” and performed

magnification "using pixel amplification," which magnifies the text or image but does not improve its clarity. Id. at 2:7-17. For this reason, pixel amplification frequently produces blurry enlargements and "often does not increase the readability of the text being magnified or the details of the image." Id. IBM is asserting claims 8, 18, and 22 of this patent.

Unasserted claim 1, on which claim 8 depends, recites as follows:

1. A method in a data processing system for presenting a set of objects on a display within the data processing system, the method comprising:

responsive to detecting movement of a pointer over an object within the set of objects, identifying an object [type] for the object, wherein the object type is one of a plurality of object types, and wherein more than one object in the set of objects may have a same object type; and

magnifying presentation of the object based on the object type of the object.

Id., claim 1.

Unasserted claim 11, on which claims 18 and 22 depend, is materially similar to claim 1 with respect to the identifying and magnifying limitations, except that claim 11 replaces "object type" with "context" and "object" with "position of the information." It recites as follows:

11. A method in a data processing system for presenting information, the method comprising:

monitoring for a change in focus on the information from a first portion of the information to a second portion of the information;

identifying a context of the second portion of the information, wherein the context is one of a plurality of contexts, and wherein more than one portion of information may have a same context; and

magnifying presentation of the information based on the context of the second portion of the information.

Id., claim 11.

In its Markman Order, this Court rejected IBM's position that "various images can be considered different object types because they differ in terms of a certain attribute in the source code," and instead construed the term "object type(s)" to mean "type(s) of object(s) (e.g., a graphic object, image object, video object, text object, or audio object)." Markman Order at 41-43. Additionally, recognizing that the specification uses the terms interchangeably, the Court construed the term "context" to have essentially the same meaning as "object," that is, it held that "context(s)" means "object information type(s) (e.g., textual information, graphic information, image information, video information, or audio information)." Id. at 43-45.

IBM's infringement allegations are based on a feature of Chewy's product detail pages on its website in which, by hovering the mouse over certain thumbnail images, the user can cause the larger, main image of the product on the page to be

swapped out with either a different image or with a video. See generally ECF No. 158-2 ("Cockburn Inf. Rpt. Ex. C").

IV. The '443 Patent

The '443 patent describes systems and methods relating to associating search result items with similar or related advertisements. ECF No. 1-3 ("Patent '443") at 1:63-65. The Patent '443 method specifically relies on a user's search results (rather than search queries) to determine which advertisements to show the user. Under this method, a user first performs a search. Id. at 2:23-39. If the search returns a result, the system searches for advertisements related to that search result. Id.

This approach to ad-targeting stands in contrast to the "user profiling" approach, which was prevalent when the '443 patent was issued. Id. at 1:15-45. The user profiling approach extracted data from a user's browsing behavior on a particular site to determine the user's interests. The approach therefore targeted ads based on a user's past browsing activity on a site, as opposed to the user's current search terms. Id. IBM is asserting claims 13, 15, 16, and 17 of the '443 patent.

Unasserted claim 1, on which claim 13 depends, recites as follows:

1. A method of targeting at least one associated advertisement from an Internet search having access to an information repository by a user, comprising:

identifying at least one search result item from a search result of said Internet search by said user;

searching for said at least one associated advertisement within said repository using said at least one search result item;

identifying said at least one associated advertisement from said repository having at least one word that matches said at least one search result item; and

correlating said at least one associated advertisement with said at least one search result item.

Id., claim 1.

Claim 15, on which claims 16 and 17 depend, recites as follows:

15.A method for providing related advertisements for search result items from a search of an information repository, comprising:

matching said search result items to said related advertisements;

designating each of said search result items that have said related advertisements matched therewith;

providing a corresponding graphical user interface for each of said search result items so designated for subsequent user selection;

searching and retrieving said related advertisements for one of said search result items when said corresponding graphical user interface is selected by a user, and,

formatting and displaying said related advertisements upon selection.

Id., claim 15.

As is relevant to these claims, in its Markman Order, this Court construed the term "Internet search" to mean "search

through an Internet search engine, e.g., google.com or yahoo.com.” See Markman Order at 31. Additionally, the Court construed the claim limitation of “matching said search result items to said related advertisements,” found in claim 15, to mean “identifying said related advertisements from said information repository having a word that matches a keyword from said search result items.” Id. at 40. As the Court explained, “[t]his construction reflects what both parties essentially concede[d] at the Markman hearing – that claim 15’s matching element refers to the same process of matching a word from the related advertisements with a keyword from the search result item that is set out in claim 1.” Id. at 39.

IBM alleges that Chewy’s website and mobile applications infringe on the ’443 patent through the use of “recommendation carousels,” which are featured on product pages and show several products alongside the product that the user is viewing. According to IBM allegations, these carousels are populated with products related to the product the user is viewing through a keyword matching process that infringes on the asserted patent claims. See generally ECF 158-7 (“Schmidt Inf. Rpt. Ex. E”); ECF 158-8 (“Schmidt Inf. Rpt. Ex. F”).

LEGAL STANDARD

The Federal Rules of Civil Procedure provide that a court “shall grant summary judgment if the movant shows that there is

no genuine dispute as to any material fact and the movant is entitled to judgment as a matter of law." Fed. R. Civ. P. 56(a). "A fact is material if it might affect the outcome of the suit under the governing law, and an issue of fact is genuine if the evidence is such that a reasonable jury could return a verdict for the nonmoving party." Ramos v. Baldor Specialty Foods, Inc., 687 F.3d 554, 558 (2d Cir. 2012).¹ The Court must "draw[] all reasonable inferences in favor of [the] non-movant." Heublein, Inc. v. United States, 996 F.2d 1455, 1461 (2d Cir. 1993). If "no reasonable trier of fact could find in favor of that party," then "summary judgment is proper." Id.

"Whether a claim is drawn to patent-eligible subject matter under [Section 101 of the Patent Act, see 35 U.S.C. § 101,] is a threshold inquiry, and any claim of an application failing the requirements of § 101 must be rejected even if it meets all of the other legal requirements of patentability." In re Bilski, 545 F.3d 943, 950 (Fed. Cir. 2008). A patent is presumed to be valid by statute. See 35 U.S.C. § 282. The party challenging the validity of a patent bears the burden of proving invalidity by clear and convincing evidence. See, e.g., Pfizer, Inc. v. Apotex, Inc., 480 F.3d 1348, 1359 (Fed. Cir. 2007). The

¹ Unless otherwise indicated, in quoting cases all internal quotation marks, alterations, emphases, footnotes, and citations are omitted.

question of whether a patent is invalid under Section 101 is an "issue of law," Bilski, 545 F.3d at 951, that may appropriately be resolved at summary judgment, see AT&T Corp. v. Excel Comm. Inc., 172 F.3d 1352, 1355 (Fed. Cir. 1999).

"To establish infringement of a patent, every limitation set forth in a claim must be found in an accused product or process exactly or by a substantial equivalent." Johnston v. IVAC Corp., 885 F.2d 1574, 1577 (Fed. Cir. 1989). "To infringe a method claim, a person must have practiced all steps of the claimed method." Finjan, Inc. v. Secure Computing Corp., 626 F.3d 1197, 1206 (Fed. Cir. 2010). "Where there is a material dispute as to the credibility and weight that should be afforded to conflicting expert reports, summary judgment is usually inappropriate." Crown Packaging Tech., Inc. v. Ball Metal Beverage Container Corp., 635 F.3d 1373, 1384 (Fed. Cir. 2011).

On the other hand, "[w]here the parties do not dispute any relevant facts regarding the accused [method] . . . but disagree over possible claim interpretations, the question of literal infringement collapses into claim construction and is amenable to summary judgment." MyMail, Ltd. v. Am. Online, Inc., 476 F.3d 1372, 1378 & n.1 (Fed. Cir. 2007) (quoting Gen. Mills, Inc. v. Hunt-Wesson, Inc., 103 F.3d 978, 983 (Fed. Cir. 1997)).

DISCUSSION

I. The '849 Patent

Chewy argues for both non-infringement and invalidity as to the '849 patent. Because, as explained below, the Court holds that summary judgment is appropriate on the basis of non-infringement, it does not reach the issue of invalidity.

1. "Selectively Storing Advertising Objects at a Store Established at the Reception System"

IBM's expert identified three theories upon which IBM relies in asserting that Chewy's website and mobile applications perform the "selectively storing" limitation of claims 1 and 14. Chewy contends that all of these theories fail as a matter of law, because they are inconsistent with the claim limitations as construed by the Court. The Court agrees.

First, IBM's expert argues that "whenever advertising objects are sent to a [content delivery network] server but are not immediately sent to a user's browser [or mobile browser]," that qualifies as "selectively storing" because the objects "are sent to the [content delivery network] server in anticipation of being sent to the user's browser [or mobile browser] at a later time." Schmidt Inf. Rpt. Ex. C ¶ 154; Schmidt Inf. Rpt. Ex. D ¶ 151. However, the plain language of this claim limitation requires that the storing occur "at the reception system," and, because, as IBM's expert acknowledged, the content delivery

network server is not a store at the user's reception system, this theory fails. ECF No. 124-32 ("Schmidt Dep. Tr.") at 254:5-16. Indeed, IBM failed to offer any argument in its brief or at oral argument in support of this theory, effectively conceding that it is inconsistent with the Court's claim construction.

Second, IBM's expert argues that when Chewy's website "retrieves . . . advertising objects" for immediate display, it also "pre-fetches" those objects "in anticipation of future display" by caching those objects at the user's computer. Schmidt Inf. Rpt. Ex. C ¶ 158; Schmidt Inf. Rpt. Ex. D ¶ 154. In essence, IBM's position on this theory is that that even if the objects are immediately displayed upon their request by the user's reception system, they are "selectively stored" within the meaning of the Court's construction of the term because they are stored by the browser or mobile device in anticipation of display the next time the user visits the website or uses the mobile applications. This theory, however, rests on a misreading of the Court's claim construction.

As noted above, in its Markman Order, the Court construed the claim element at issue here to mean "retrieving advertising objects and storing at a store established at the reception system in anticipation of display concurrently with the applications." Markman Order at 13. IBM argues that the Chewy does perform this limitation, since the browser or mobile device

does store the relevant objects "in anticipation of display," where the display, under IBM's theory, is some future subsequent display. However, as the Court explained in adopting this construction, "a proper construction of the disputed terms reflects that the advertising objects must be 'pre-fetched.'" Id. at 13. And, as the Court further explained, an object is not "pre-fetched" when it is "retrieved on demand" by the user, id. at 13, that is - an object is only "pre-fetched" if it is retrieved and stored at the user's terminal "before being requested by the user," id. at 2.

This construction follows directly from the specification, which, among other things, states that when advertising objects are pre-fetched, "they are available in the [reception system's] local store" before they are "requested by [the] object interpreter" when it "requests all [the] objects required to build a page." Patent '849 at 23:35-36, at 33:63-65; see also id. at 34:41-44 (noting that "pre-fetching mechanism" "eliminate[s] from the new page response time the time it takes to retrieve an advertising object form the host system," and implying that the object is retrieved before the user requests the new page).

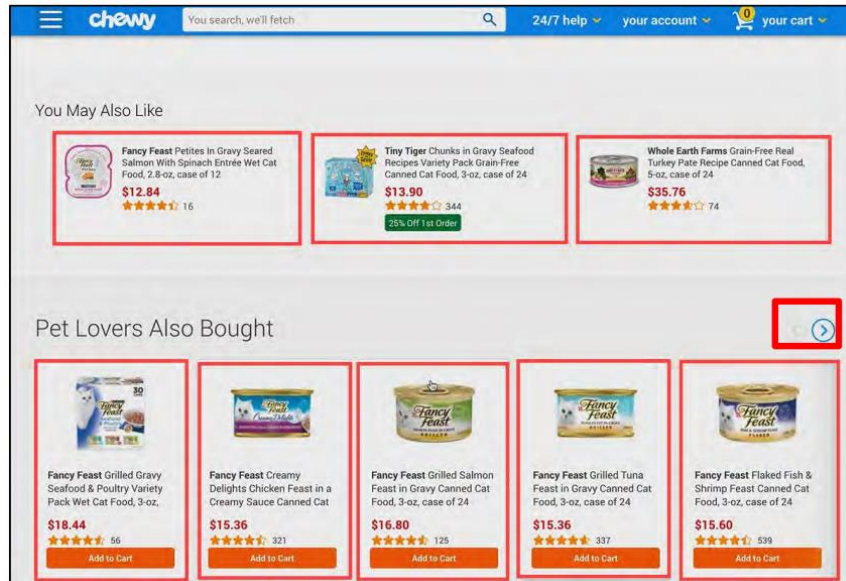
Thus, when properly understood, the Court's construction requires that the advertising objects be "pre-fetched" in the sense that they are retrieved before the user has requested the

page in connection with which they are to appear.² IBM's second theory thus fails to satisfy this claim limitation because, as IBM's expert acknowledges, before any purported advertising objects are cached, the user must first request them from Chewy's server. See Schmidt Inf. Rpt. Ex. C ¶ 138; Schmidt Inf. Rpt. Ex. D ¶ 134.

Finally, IBM's expert argues that the "selectively storing" limitation is performed when the purported "advertising objects are sent to the user's browser [or mobile device] and not presented immediately on the screen of display." Schmidt Inf. Rpt. Ex. C ¶ 160; Schmidt Inf. Rpt. Ex. C ¶ 157. According to IBM's expert, this occurs when an object is sent to the browser but is not displayed until, for example, the user scrolls down

² To the extent this implies a modification of the Court's prior term construction, the Federal Circuit has made clear that "district courts may engage in a rolling claim construction, in which the court revisits and alters its interpretation of the claim terms as its understanding of the technology evolves." Pressure Prod. Med. Supplies, Inc. v. Greatbatch Ltd., 599 F.3d 1308, 1316 (Fed. Cir. 2010) (quoting Pfizer, Inc. v. Teva Pharm., USA, Inc., 429 F.3d 1364, 1377 (Fed. Cir. 2005)). Moreover, because IBM explicitly relies on the Court's construction of "selectively storing" as "prefetching," see ECF No. 150 at 9-10, and argues for infringement even on the assumption that "prefetching" involves retrieving prior to a user's request for the page, see id. at 10, there can be no argument that any implied "adjustment [to the claim construction] prejudiced [IBM's position or] compromised its ability to respond." Pressure Prod., 599 F.3d at 1316.

on the page or presses the right arrow on a product carousel, such as the one annotated with a red box in the below image:



Schmidt Inf. Rpt. Ex. C ¶ 165.

Like IBM's expert's second theory, this theory rests on the notion that an object is "pre-fetched" in the relevant sense so long as it is stored locally at the reception system before it is displayed to the user. See ECF No. 150 at 8-9. However, as explained above, properly understood, a method only performs the relevant claim limitation if it retrieves the object before the user requests the page in connection to which the object is to be displayed.

IBM argues that there is infringement under this theory even accepting this construction of the claim terms because Chewy's "source code does not retrieve advertising objects 'on

demand' or because 'a user has requested the page,' but rather on the basis of "various 'prioritization' factors, such as 'when the browser is idle, [and] when certain events occurs (such as scrolling or resizing).'" Id. at 10 (quoting ECF No. 158-19 ("Schmidt Reply Rpt.") ¶ 28). But, as IBM's own expert recognizes, this aspect of Chewy's source code, referred to as "lazy loading," does not relevantly alter the analysis. See Schmidt Reply Rpt. ¶ 14 ("Chewy's use of lazy loading . . . does not affect my opinion that Chewy performs the selectively storing claim element or any other claim element."). Although Chewy's website defers loading off-screen elements, it still only retrieves those elements in response to, rather than in anticipation of, a user's request for a particular page. See id. ¶ 9.³

Accordingly, no reasonable factfinder could conclude that Chewy performs the "selectively storing" element of asserted claims 1, 2, 14, and 18 of the '849 patent.

³ Moreover, that certain documentation associated with the lazy loading code refers to its function as "prefetching/preloading," see Schmidt Reply Rpt. ¶ 18, does not bear on whether it performs the function of "prefetching" as it is used in the specification.

2. "Establishing Characterizations for Respective Users Based on the Compiled Data"

As discussed above, in the patented method, the user's system stores advertisement information in advance, before a page is requested by the user. Thus, once a page is requested, the space on the page designated for advertisements can be populated without requiring the user's system to download the advertisement objects from the network, which would slow down the process of retrieving the content the user is actually interested in. See Patent '849 at 3:5-25. In order to ensure that the advertisements downloaded in advance are pertinent to the user, the patented method recites the use of characterizations - that is, as construed by the Court, "targeting criteria for users as defined by interaction history with the service and/or such other information as user demographics and locale," Markman Order at 20 - to determine which advertisements should be preloaded into the user's system, see Patent '849 at 3:25-30.

Chewy argues for summary judgment on non-infringement as to claim 12 on the grounds that no reasonable factfinder could conclude that its website or mobile applications perform the claim limitation of "establishing characterizations for respective users based on the compiled data," which is part of unasserted claim 8, on which claim 12 depends. As Chewy's

expert explains, whenever a viewer visits "a given page (e.g., on a browser page, in a product carousel, or in responses to a search)," "the same items will be displayed . . . regardless of any data regarding the user's interaction history or demographics." ECF No. 158-26 ("Almeroth Noninf. Rpt. App'x A") ¶ 84. In other words, it is not the case that Chewy's website or mobile applications deliver the user advertisements based on a set of targeting criteria specific to the user built from information collected about that user, such as his or her past history of interacting with the site or the user's demographics.

IBM's expert offers no opinion directly disputing this fact. Instead, he points to the manner in which Chewy populates certain features of its website and mobile applications - such as the "Frequently Bought Together" and "Pet Lovers Also Bought" carousels that appear on the pages for particular products - using aggregated user interaction history, including past sales, to determine which items to feature. Schmidt Inf. Rpt. Ex. C ¶¶ 198-206; Schmidt Inf. Rpt. Ex. D ¶¶ 195-200. Specifically, according to IBM's expert, Chewy generally retrieves results by querying via SKU (essentially, a barcode associated with the product), product category, or other product information and then delivers results using data collected about users who purchase or browse items associated with that SKU or category.

Schmidt Inf. Rpt. Ex. C ¶¶ 201-03; Schmidt Inf. Rpt. Ex. D ¶¶ 195-97; see also Schmidt Inf. Rpt. Ex. E ¶¶ 71-76.

While such a function could be said to employ targeting criteria for advertisements based on users' interaction history, it is not the case that those criteria as developed "for respective users," as contemplated by the claim limitation. Patent '849, claim 8. What IBM's expert describes is a method of targeting advertisements by showing a user content related to the page he or she is currently viewing. But that is distinct from the patented method, which requires delivering advertisements based on a "characterization[] for the respective user[]," meaning, targeting criteria that are specific and "individualized to the respective user." See id. at 10:20-24.

Attempting to sidestep this issue, IBM's expert points to Chewy's privacy policy, which indicates that Chewy "collect[s] information about users over time and across different websites and devices . . . to provide [the user] with more useful and relevant ads," as well as other documents broadly supporting the contention that Chewy targets advertisements based on information collected from customers. See Schmidt Inf. Rpt. Ex. C ¶¶ 194-203; Schmidt Inf. Rpt. Ex. D ¶¶ 193-202.⁴

⁴ Similarly, at oral argument, IBM relied on a document, which, in its Rule 56.1 statement, it characterized as showing that Chewy populates its carousels by "analyz[ing] items that a user who looked at the current item has also viewed" and "featuring

But this evidence does not provide any direct support for the proposition that Chewy utilizes that characterization-based targeting recited by the patent, as opposed to some alternative method of targeting. Indeed, the information collection and use described in the privacy policy is wholly consistent with the above-described method of delivering advertisement related to particular product pages that is attributed to Chewy by IBM's expert. Accordingly, there is no genuine dispute as to the fact that that Chewy does not perform the limitation of "establishing characterizations for respective users based on the compiled data" of claim 12.

Therefore, for the foregoing reasons, the Court grants summary judgment to Chewy on all the asserted claims of the '849 patent, finding that it has infringed none of them.⁵

II. The '831 Patent

Chewy moves for summary judgment with respect to the '831 patent on the ground that its website does not infringe the patent's claims, citing three reasons that all go to claim 1, the asserted independent claim on which both of the other

products that Chewy users have purchased together with other products in the user's order." See ECF No. 161 (citing No. ECF 153-93 at 1350-52).

⁵ Because the Court concludes that Chewy is entitled to summary judgment on non-infringement for the above-referenced reasons, it does not address Chewy's argument that IBM is collaterally estopped from asserting infringement of the '849 patent.

asserted claims depend. First, Chewy argues that it does not "receiv[e] a page," because it is the user's computer that receives the page. Second, Chewy argues that it does not "render[] the received page on a virtual display to form a rendered page." And third, Chewy argues that Chewy does not perform the limitation of "determining whether the rendered page falls within a proximity policy."

As explained below, the Court agrees that no reasonable factfinder could conclude that Chewy performs either the "rendering" or "determining" limitations, thus entitling Chewy to summary judgment on all of the asserted claim of this patent.

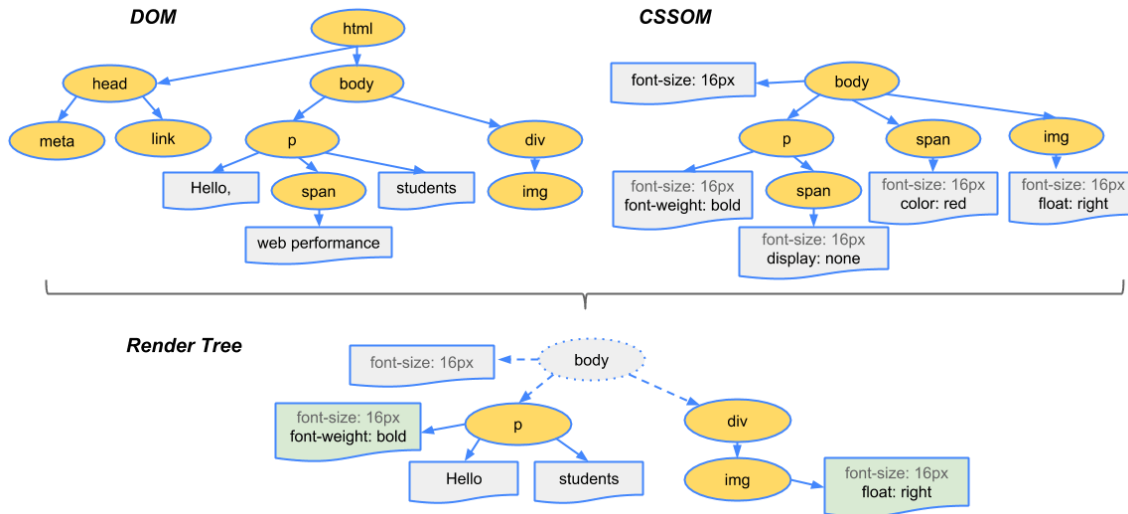
1. "Rendering the Received Page on a Virtual Display to Form a Rendered Page"

Chewy contends that IBM fails to put forward evidence that it "render[s] the received page on a virtual display." Prior to claim construction, IBM took the position that the received page that is rendered on the virtual display was that page displayed to the user when the user first requests the page. ECF No. 120 ¶ 179. However, pursuant to the Markman Order, the Court rejected this position, instead construing the term "virtual display" to refer to "a web browser unit onto which the page is projected prior to displaying it to the user." Markman Order at 57 (emphasis added). IBM, in response, took the position that

something called the “render tree” constitutes the claimed page that is rendered on the virtual display.

Understanding IBM’s position requires some background on the innerworkings of web browsers. The primary function of a web browser is to present internet content to the user by requesting it from a server and displaying it in the browser window. When a user visits a webpage, the server sends the browser data that the browser then uses to construct two tree-like data structures: First, it constructs the “Document Object Model” (“DOM”) tree, which contains the content of the webpage. Then it constructs the “CSS Object Model” (“CSSOM”) tree, which contains the style rules for the content, such as what font or color certain text should be.⁶ The DOM and CSSOM trees are then combined into a “render tree,” which, as IBM’s expert explains, “contains both the content and style information of all the visible content on the screen.” Cockburn Inf. Rept. Ex. D ¶ 74. The below image illustrates the construction of a render tree:

⁶ See Ilya Grigorik, “Render-tree Construction, Layout, and Paint,” Google Developers. February 12, 2019, available at <https://developers.google.com/web/fundamentals/performance/criticalrendering-path/render-tree-construction> (IBM-CHEWY00159898) (“Grigorik 2019”). This resource is relied on by IBM’s expert in his report. See, e.g., Cockburn Inf. Rept. Ex. D ¶ 74. Accordingly, it is admissible for purposes of contextualizing and evaluating the expert’s opinion. See Fed. R. Evid. 703 advisory committee’s note (2000).



Id. (Grigorik 2019).

At this stage, the actual size and location of each element in tree as it will appear on the webpage has not yet been calculated. This occurs once the render tree is created through the "layout" process. As IBM's expert explains, during the "subsequent process to run layout on the tree," the browser "determines the width, height, and location of all the nodes in the render tree, and determines the size and position of each object on the page. Id. ¶ 116. The final stage is "painting," which "involves drawing every visual part of an element to a user's screen, including text, color, borders." Id. ¶ 140.

IBM contends that performing the limitation of "rendering the received page on a virtual display to form a rendered page" is met by the construction of the "render tree" - that is, merely through the combination of the DOM and CSSOM trees. See id. ¶ 72. Chewy, on the other hand, argues that a "render tree"

cannot itself constitute a rendered page, because a render tree is essentially just instructions for how a web page's visual elements should be rendered, not a rendered page itself.

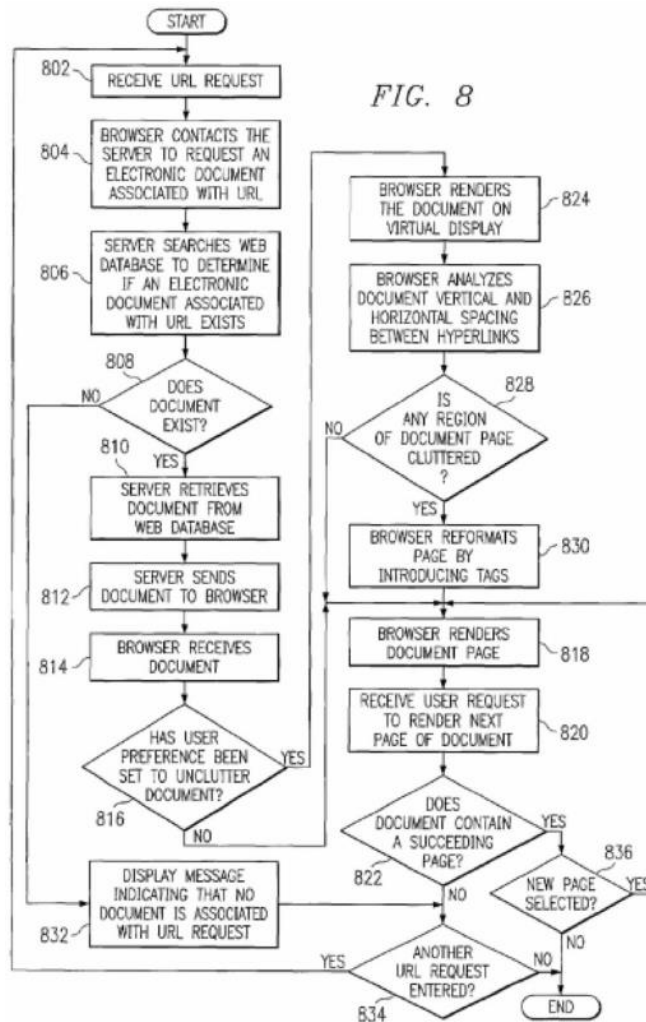
Specifically, Chewy argues that the render tree cannot be a rendered page because the location, and thus the spacing, of the hyperlinks remain undefined at that stage, only being calculated through the layout process that follows.

IBM responds that the question of whether "a render tree is an example of a rendered page" is a disputed matter of fact, thus precluding decision on summary judgment. See ECF No. 150 at 25. But this is not correct. In connection with this issue, Chewy does not contest any factual points regarding how a render tree operates or that its website causes a browser to create such a tree. Rather, the only question is one of claim construction - what does the claim term "rendered page" mean. As already noted, questions of claim construction are "amenable to summary judgment." MyMail, Ltd., 476 F.3d at 1378 & n.1.

Here, an analysis of the specification and the claim language make plain that IBM relies on an improper construction of the term "rendered page." The term "rendered page" never appears in the specification itself. However, consistent with the contested claim limitation, the specification does discuss "rendering" a webpage, either directly to the user's display or to a "virtual display," which, as the Court previously

construed, is not made visible to the user. See, e.g., Patent '831 at 10:36-51. The fact that the specification uses the same term to describe both of these actions, without any step following "rendering" to the user's display, strongly suggests that at the rendering stage the projection in question can be characterized as a complete visual representation of the webpage - including information about the size and location of individual elements.

This is further supported by Figure 8, which depicts the browser rendering the document on the virtual display as the step immediately prior to "analyz[ing] document vertical and horizontal spacing between hyperlinks" - implying that once a page is "rendered," then its elements, including hyperlinks, possess precise locations on the page that can be so analyzed.

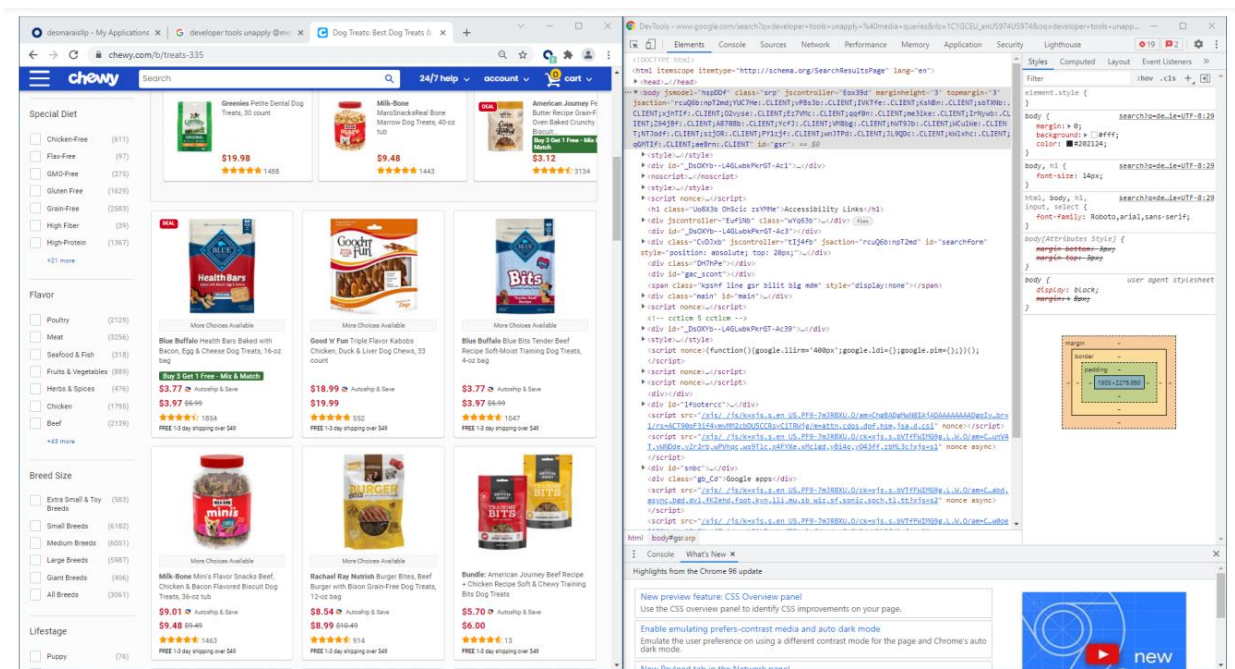


Id. at Fig. 8.

Taken together, this intrinsic evidence implies that to be a “rendered page” within the meaning of the claim, what is rendered on the virtual display must be in a form that essentially would be viewable were it projected onto a user’s display, rather than the internal virtual display that forms part of the browser.

There can be no question that the render tree created by Chewy’s website is not a rendered page, so construed, since – as

IBM's expert states - at that stage the location and size of the elements on the tree have yet to be determined. Indeed, were there any ambiguity that a render tree is not in a form ready to be made viewable on a user's display, it would be erased by the screenshot, contained in IBM's expert report, that shows, side-by-side, what the user's sees on her or his display (on the left) and a visualization of the render tree (on the right):



Cockburn Inf. Rept. Ex. D ¶ 74.

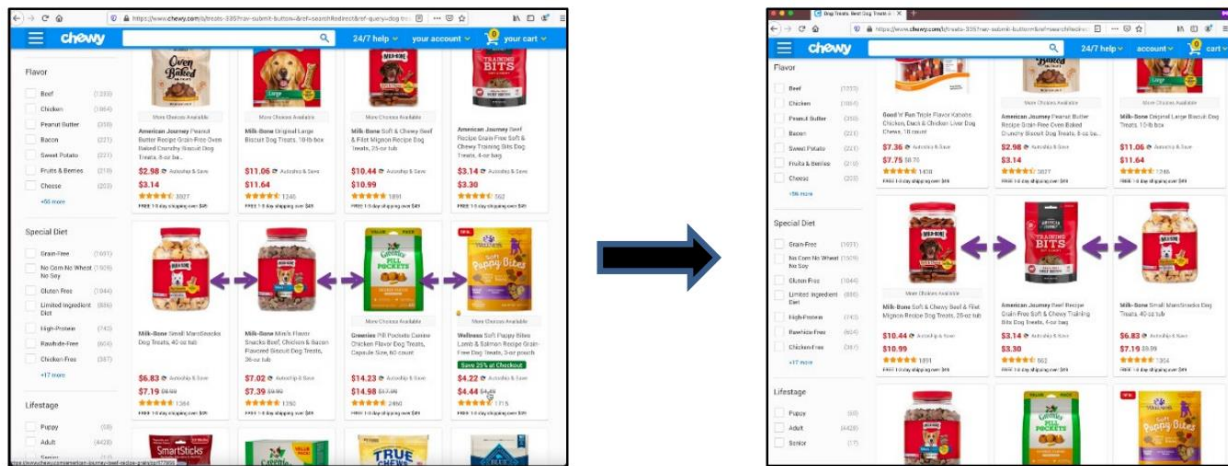
The render tree, as this screenshot reflects, may well be understood as a set of instructions for how to render the sort of webpage seen on the right; but it is not itself a rendered page. Accordingly, no reasonable factfinder could conclude that Chewy "render[s] the received page on a virtual display to form a rendered page," as the '831 patent uses those terms.

2. "Determining Whether the Rendered Page Falls Within a Proximity Policy"

Chewy also argues that it does not perform the limitation of "determining whether the rendered page falls within a proximity policy." As noted above, IBM's infringement claim rests on the allegation that a render tree constitutes a "rendered page" within the meaning the patent claim. But a render tree is essentially only a set of instructions for how the webpage should ultimately be rendered to the user's display. And, critically, the render tree does not itself contain information as to the exact locations where on the rendered page the elements, such as hyperlinks, will appear. See Cockburn Inf. Rept. Ex. D ¶ 116. Accordingly, because the Court construed a "proximity policy" to mean "a user-defined policy specifying spacing rules for hyperlinks," and because the render tree does not have defined spacing between hyperlinks, Chewy argues that its website cannot possibly perform this claim limitation.

IBM seeks to overcome this issue by offering two theories of infringement, one based on when a user first accesses Chewy's website and the other based on when a user resizes her or his browser window. Both of these theories rely on Chewy's use of "@media queries." Media queries are essentially separate sets of style rules to be applied when rendering a webpage depending

on the characteristics of the user's browser. For example, according to IBM's expert, Chewy's code includes one set of style rules for when a user sets the browser to be at least 1250 pixels wide, causing four product tiles to appear in a row, while another set of rules applies when the browser is set to be fewer than 1250 pixels wide, resulting in rows with only three tiles each. Id. ¶ 149.



Id. (IBM-CHEWY00074253 at 0:33 to 0:42).

IBM argues that these media queries constitute proximity policies, within the meaning of the patent claims, because, depending on which media query is triggered, the spacing between the hyperlinked product tiles changes. Id. ¶ 85. As IBM's expert explains, "[e]ach media query is specific to a particular range of browser sizes and acts as the proximity policy for that range." Id. According to IBM, these policies are "user defined," as required under the Court's construction, because it

is the user's choice regarding the width of the browser window that determines which media query is triggered. Id.

But this theory of infringement is plainly inconsistent with the claim terms, as construed by the Court. As the Court held in adopting Chewy's proposed construction of the term "proximity policy," "the patent requires a user to set the criteria for the 'proximity policy.'" Markman Order at 58. "[T]he specification describes various criteria that the user may use to define the 'proximity policy,' stating, for example, that 'a user may determine that vertical and horizontal spacing between any two or more hyperlinks is . . . at least 15 pixels.'" Id. (quoting Patent '831 at 7:65-8:25). But, as described by IBM's expert, Chewy's website does not give the user the ability to set the criteria for any given "proximity policy," that is media query. Indeed, all of the rules defining each media query are entirely set by Chewy. The user's role is limited to altering the pixel width of the browser, thus indirectly affecting which preset media query is triggered. As such, the user does not "define" the proximity policy in the sense contemplated by the patent claims and this claim limitation is not performed by Chewy.

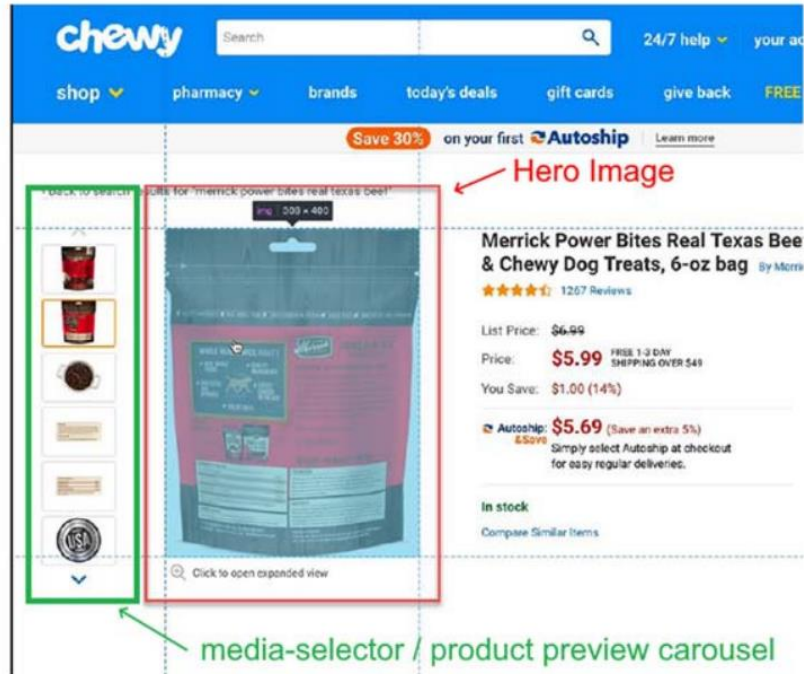
Accordingly, for the reasons set out above, the Court grants summary judgment to Chewy on all of the asserted claims of the '831 patent. Moreover, because the Court grants Chewy's

motion for summary judgment on non-infringement, it denies as moot IBM's motion for summary judgment of no anticipation and no obviousness as to the '831 patent.

III. The '034 Patent

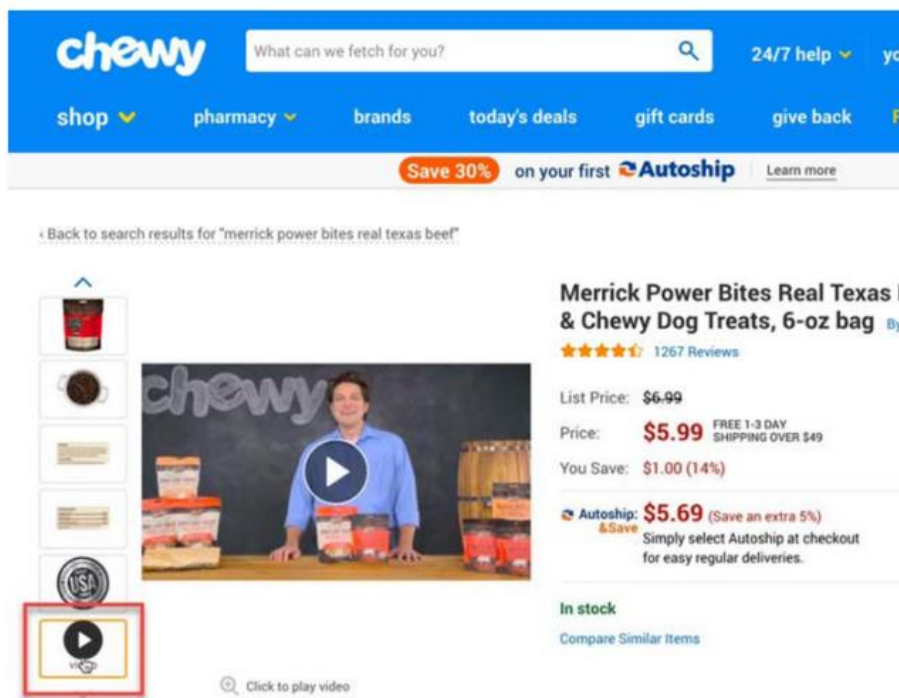
Chewy moves for summary judgment with respect to the '034 patent on the ground that its website does not perform the claim limitation of identifying an object type and thus does not infringe on any of the patent claims. This argument rests on certain details regarding how the code for Chewy's website functions. Accordingly, a brief overview of how the relevant parts of Chewy's website work and IBM's allegations in relation to those aspects of the website is in order:

IBM alleges that Chewy's product details pages ("PDPs") infringe the asserted '034 claims. As depicted in the below screenshot from Chewy's website, a PDP includes, among other things, a "hero image" and a set of "thumbnails" alongside the hero image in a "media-selector carousel." Cockburn Inf. Rpt. Ex. C ¶ 20; ECF No. 120 ¶ 217.



ECF No. 120 ¶ 217.

These thumbnails can either contain a product image or an image of a triangle “play” icon above the text “video.” When a user hovers over an image thumbnail in the carousel, the “hero image” is replaced with a magnified version of the image in the thumbnail. When a user hovers over the thumbnail containing the play icon, the “hero image” is replaced with a video. See ECF No. 158-35 (“Cockburn Tr.”) at 126-129. The below screenshot shows one of these play icons in the annotated red box:



ECF No. 120 ¶ 219.

According to IBM's expert, Chewy's website carries out the above feature through an "if/else" function that responds to what are referred to as "attributes" associated with the thumbnails in the carousel. An attribute is code that can be associated with an object in a website's source code to provide further information about that object. Here, Chewy assigned the attribute "data-wistia-vid" to thumbnails of the "play" icon but not to other thumbnails in the carousel. When a user hovers her mouse over a thumbnail, Chewy's code either performs the "if" function if it identifies the "data-wistia-vid" attribute or it performs the "else" function if that attribute is not detected. Cockburn Inf. Rpt. Ex. C ¶¶ 49, 56, 90. The "if" function

causes a video associated with the "play" icon to be swapped-in for the hero image, while the "else" function causes a magnified image corresponding to the thumbnail image to replace the hero image. ECF No. 160 ("IBM's Response to Chewy Rule 56.1") ¶ 228 (citing Cockburn Tr. at 165-166).

IBM argues that this process constitutes the limitation of "identifying an object [type] for the object" because, given that the "data-wistia-vid" attribute is only associated with thumbnails corresponding to videos and that the carousel only includes thumbnails corresponding to either images or videos, the "if/else" function effectively serves to identify whether the corresponding object is an image object or a video object.

The problem with this theory, however, is that the claim limitation does not describe a process for identifying what type of object is linked to the object over which the mouse is hovering; rather, the limitation contemplates identifying the object type of the hovered-over object itself. This the "if/else" function does not do. Indeed, all of the objects in the carousel are static thumbnail images; in other words, they are image objects. And the only thing accomplished by the function described by IBM is to identify attributes associated with those image objects, not to identify the object type of the hovered-over object itself. As the Court's Markman Order held, identifying an object type for an object refers to identifying

what "type of object" it is - that is, "a graphic object, image object, video object, text object, or audio object" - not what other attributes might be associated with it. See Markman Order at 41-43. As such, the accused feature of Chewy's website does not perform the identifying limitation.

IBM attempts to avoid this implication by referring to the thumbnails of the "play" icons as "video objects." But to accept that these static thumbnails are "video objects" would be to blink reality. A "video object" as the term is used in the specification refers to a video - just as a "image object" refers to an image and an "audio object" refers to an audio recording. See Patent '034 at 10:36-46. The thumbnail image of a "play" icon, along with the text "video," is thus not a video object.⁷

Accordingly, no reasonable factfinder could conclude that Chewy performs the limitation of "identifying an object [type] for the object, wherein the object type is one of a plurality of object types," id., claim 1. Further because of the equivalence

⁷ In a footnote, IBM suggests that even if the thumbnail of the play icon is an image object rather than a video object, there is still infringement because an enlarged play icon is overlaid the video that appears in the hero square. See ECF No. 150 at 22 n.9. But even assuming the overlaid icon could be considered a magnified version of the thumbnail (already a stretch), under this theory Chewy's website would not infringe on the patent because it would still not perform the identifying limitation, as described above.

of the identifying limitations of claims 1 and 11, respectively, the same applies to claim 11's identifying limitation.

Therefore, the Court grants summary judgment of non-infringement to Chewy as to all the asserted claims of the '034 patent, all of which are dependent on either claim 1 or 11.

IV. The '443 Patent

With regard to the '443 patent, Chewy renews its argument that the patent is invalid under Section 101 of the Patent Act in addition to arguing non-infringement. To determine whether a claim is eligible for patenting under Section 101 of the Patent Act, a court applies the two-part test articulated in Alice Corp. Pty. Ltd. v. CLS Bank Int'l, 573 U.S. 208 (2014). First, a court must decide "whether the claims at issue are directed to a patent-ineligible concept, namely a law of nature, natural phenomenon, or abstract idea." Move, Inc. v. Real Est. All. Ltd., 721 F. App'x 950, 954 (Fed. Cir. 2018) (quoting Alice, 573 U.S. at 217). If the answer is yes, the court then proceeds to consider the claim elements, "both individually and as an ordered combination, to determine whether they contain an 'inventive concept' sufficient to 'transform the nature of the claim' into a patent-eligible application.'" Id. (quoting Alice, 573 U.S. at 217).

A claim reciting an abstract idea may nevertheless satisfy Alice step two if it includes "additional features" that are

more than “well-understood, routine, conventional activities.” Alice, 573 U.S. at 221. However, if “[t]he claim language does not provide any specific showing of what is inventive about the [limitation in question] or about the technology used to generate and process it,” the claims do not satisfy Alice’s second step. Move, Inc., 721 F. App’x at 957. “The abstract idea itself cannot supply the inventive concept, no matter how groundbreaking the advance.” Trading Techs. Int’l, Inc. v. IBG LLC, 921 F.3d 1084, 1093 (Fed. Cir. 2019).

In its prior order, which preceded the Markman hearing in this case, the Court analyzed the claims of the ’443 and determined that they “are . . . directed toward an abstract concept” under Alice step one. ECF No. 66 at 30. Specifically, the Court held that, “[d]espite IBM’s argument that [the patent] presents an innovative and unconventional approach to identifying ads based on search results rather than search queries, the claims themselves do not describe a technical solution to a technical problem.” Id. However, recognizing that, “[d]epending on the construction of the claim terms, it is possible that the method in the claim technologically implements this function in an unconventional way,” the Court elected to defer application of Alice step two until after claim construction. Id. at 32. Accordingly, the only question to be

determined on this motion is whether the '443 patent fails Alice step two.

Ultimately, although the Court construed a number of the claim terms, none of those constructions causes the claims to recite anything that can properly be understood as an inventive concept sufficient to transform the claims into patent-eligible subject matter. This point is made clear by the Court's construction of the terms "associated advertisement," "related advertisement(s)," and "related product advertisements": The Court, adopting the position put forward by IBM, concluded that these terms are "sufficiently clear to communicate the scope of the patent – namely, that it is a method for determining which advertisements to show the user based on what advertisements are related to the results of the search, rather than advertisements related to the search queries themselves or based on a user profile." Markman Order at 28. However, as the Court further observed, "the patent fails to specify the methods by which the relatedness of advertisements is to be determined, among other technical details." Id. In other words, the claims fail to provide any greater specificity that might transform the abstract idea of targeting advertisement based on search results into an inventive concept.

Nevertheless, IBM argues that an inventive concept can be found in the manner in which the claims use "conventional

pieces" in "non-conventional" ways to accomplish the targeted advertisement. ECF No. 150 at 44. For example, with regard to claim 13, which depends on claim 1, IBM argues that the claim captures a specific way to implement targeted advertisement in that it contemplates the use of a "repository" (i.e., a database) of advertisements "associated with" the words within the search result items, rather than a (conventional) user profile repository.

But using a repository - which the specification defines as "a server or wide area network," Patent '443 at 6:27-29 - to store the information used in associating search results with advertisements is not an inventive concept. Rather, it merely encapsulates the conventional concept of storing advertisement in a means compatible with the patent's abstract advertisement targeting approach. See Content Extraction & Transmission LLC v. Wells Fargo Bank, Nat. Ass'n, 776 F.3d 1343, 1347 (Fed. Cir. 2014) ("The concept of data collection, recognition, and storage is undisputedly well-known. Indeed, humans have always performed these functions."). This is particularly true give that the specification notes that "the invention is broadly applicable to any method in which it is desirable to associate an advertisement with a result from an information repository search," Patent '443 at 7:58-6, thus making plain that the

claims do not involve some particular, unconventional set of steps that could give rise to an inventive concept.⁸

Claim 15, 16 and 17 similarly fail to provide an inventive concept. Claim 15 adds the elements of providing a graphical user interface, so as to create a graphical relationship between the search result item and the advertisement. See ECF No. 161 ¶ 346. But as the Court suggested in its prior order, see Markman Order at 33, visually presenting to the user an otherwise identified relationship between the search results and certain advertisements "add[s] nothing of practical significance to the underlying abstract idea," Ultramercial, Inc. v. Hulu, LLC, 772 F.3d 709, 716 (Fed. Cir. 2014), and IBM fails to muster anything beyond conclusory testimony to the contrary, see ECF No. 158-16 ("Schmidt Val. Rpt. Ex. 3") ¶ 68.⁹ Further, although claim 16,

⁸ As to IBM's invocation of "off-line batch process[ing]," in claim 13, IBM concedes that "batch-processing was not new for the web," but nevertheless argues that it was "unconventional to use offline batch processing as claimed" because websites usually used this process "to generate content that was not needed immediately, such as a monthly bill," rather than for advertising. ECF No. 150 at 46. But the use of existing technology as a tool to implement an abstract idea, regardless of how novel that abstract idea may be, does not change the underlying, patent-ineligible focus of the claims. Thus, the claim language cannot support "specific showing of what is inventive about the limitation in question or about the technology used to generate and process it." Move, 721 F. App'x at 957.

⁹ Claim 17 depends on claim 15 and adds only the unhelpful limitation "wherein said related advertisements comprise related

which depends on claim 15, adds the concept of using “an identifier for said user” in combination with the steps of claim 15 (meaning that certain information is collected about the user, see Markman Order at 35-37), this addition is essentially a “data-gathering step,” that is, the sort of “insignificant extra-solution activity” that cannot transform an abstract concept into a patentable one. In re Bilski, 545 F.3d 943, 963 (Fed. Cir. 2008), aff’d, 561 U.S. 593 (2010). Thus, none of these claims can be said to meaningfully provide “a particular concrete solution to a problem,” that is, how to associate advertisements based on search results. Elec. Power Grp., LLC v. Alstom S.A., 830 F.3d 1350, 1356 (Fed. Cir. 2016).

Thus, the Court finds that the asserted claims of the ‘443 patent are invalid under 35 U.S.C. § 101. Accordingly, the Court grants Chewy’s motion for summary judgment of invalidity with regard to the ‘443 patent. Because the Court grants the motion for summary judgment of invalidity, it does not address Chewy’s non-infringement arguments.

product advertisements.” See Patent ‘443, claim 17.

CONCLUSION

For the foregoing reasons, the Court grants Chewy's motion for summary judgment in full and denies IBM's cross-motion for partial summary judgment. As a result, the Clerk of the Court is directed to enter final judgment in favor of Chewy, declaring that Chewy does not infringe IBM's asserted patent claims and that IBM's counterclaims are all dismissed with prejudice. The Clerk of the Court is further directed to close docket numbers 119, 130 and 180.

SO ORDERED.

Dated: New York, NY
April 11, 2022


JED/S. RAKOFF, U.S.D.J.