

## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1  
 Stylesheet Version v1.2

EPAS ID: PAT7127664

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT	
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT	
<b>CONVEYING PARTY DATA</b>		
	<b>Name</b>	<b>Execution Date</b>
	WAL-MART STORES, INC.	10/01/2019
<b>RECEIVING PARTY DATA</b>		
<b>Name:</b>	WALMART APOLLO, LLC	
<b>Street Address:</b>	702 SW 8TH STREET	
<b>City:</b>	BENTONVILLE	
<b>State/Country:</b>	ARKANSAS	
<b>Postal Code:</b>	72716	
<b>PROPERTY NUMBERS Total: 1</b>		
<b>Property Type</b>	<b>Number</b>	
<b>Application Number:</b>	17578323	
<b>CORRESPONDENCE DATA</b>		
<b>Fax Number:</b>	(602)364-7070	
<i>Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.</i>		
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<b>ATTORNEY DOCKET NUMBER:</b>	3806US03/1761284.1441	
<b>NAME OF SUBMITTER:</b>	JULIE A. ESLICK	
<b>SIGNATURE:</b>	/Julie A. Eslick/	
<b>DATE SIGNED:</b>	01/19/2022	
<b>Total Attachments: 6</b>		
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## PATENT ASSIGNMENT

This PATENT ASSIGNMENT ("Patent Assignment"), effective as of January 31, 2018, is made by and between Wal-Mart Stores, Inc., 702 Southwest 8<sup>th</sup> Street, Bentonville, Arkansas 72716, USA, ("Assignor"), and Walmart Apollo, LLC, 702 Southwest 8<sup>th</sup> Street, Bentonville, Arkansas 72716, USA, ("Assignee"), the assignee of certain assets of Assignor pursuant to the INTERCOMPANY AGREEMENT by and between Assignee and Assignor, dated as of January 31, 2018 (the "Patent Agreement").

WHEREAS, under the terms of the Patent Agreement, Assignor has conveyed, transferred and assigned and does hereby convey, transfer and assign to Assignee, certain intellectual property of Assignor as listed on Schedule 1, and has agreed to execute and deliver this Patent Assignment, for recording with governmental authorities:

NOW THEREFORE, the parties agree as follows:

Assignment. In consideration for the execution of the Patent Agreement and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, Assignor has conveyed, transferred, and assigned and does hereby convey, transfer and assign to Assignee, and Assignee hereby accepts, all of Assignor's right, title and interest in and to the following (the "Assigned Patents and Applications"):

the patents and patent applications set forth in Schedule 1 hereto and all issuances, divisions, continuations, continuations-in-part, reissues, extensions, reexaminations and renewals thereof;

all rights of any kind whatsoever of Assignor accruing under any of the foregoing provided by applicable law of any jurisdiction, by international treaties and conventions and otherwise throughout the world.

Recordation and Further Actions. Assignor authorizes any other governmental officials to record and register this Patent Assignment upon request by Assignee. Assignor shall take such steps and actions following the date hereof, including the execution of any documents, files, registrations, or other similar items, to ensure that the Assigned Patents and Applications are properly assigned to Assignee, or any assignee or successor thereto.

Terms of the Patent Agreement. The terms of the Patent Agreement, including, but not limited to, the representations, warranties, covenants, agreements and indemnities relating to the Assigned Patents and Applications are incorporated herein by this reference. The parties hereto acknowledge and agree that the representations, warranties, covenants, agreements and indemnities contained in the Patent Agreement shall not be superseded hereby but shall remain in full force and effect to the full extent provided therein. In the event of any conflict or inconsistency between the terms of the Patent Agreement and the terms hereof, the terms of the Patent Agreement shall govern.

Counterparts. This Patent Assignment may be executed in counterparts, each of which shall be deemed an original, but all of which together shall be deemed to be one and the same agreement. A signed copy of this Patent Assignment delivered by facsimile, e-mail or other means of electronic transmission shall be deemed to have the same legal effect as delivery of an original signed copy of this Patent Assignment.

Successors and Assigns. This Patent Assignment shall be binding upon and shall inure to the benefit of the parties hereto and their respective successors and assigns.

[SIGNATURE PAGE FOLLOWS]

IN WITNESS WHEREOF, Assignor has duly executed and delivered this Patent Assignment as of the date first above written.

Wal-Mart Stores, Inc.  
702 Southwest 8<sup>th</sup> Street  
Bentonville, Arkansas 72716  
USA

By: Gordon Y. Allison

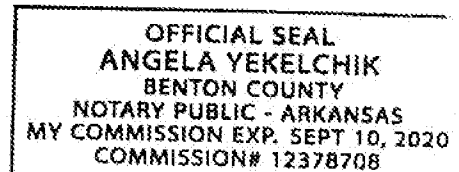
Name: Gordon Allison  
Title: Vice President and General Counsel,  
Corporate

State of Arkansas )  
Benton ) ss:  
County of Benton )

On this, the 1<sup>st</sup> day of October, 2019, before me, a notary public, the undersigned officer, personally appeared Gordon Y. Allison known to me (or satisfactorily proven) to be the person whose name is subscribed to the within instrument, and acknowledged that he executed the same for the purposes therein contained.

In witness hereof, I hereunto set my hand and official seal.

Angela D. Yekelchik  
Notary Public  
My Commission Expires: 9-10-20



IN WITNESS WHEREOF, Assignee has duly executed and delivered this Patent Assignment as of the date first above written.

Walmart Apollo, LLC  
702 Southwest 8<sup>th</sup> Street  
Bentonville, Arkansas 72716  
USA

By: \_\_\_\_\_

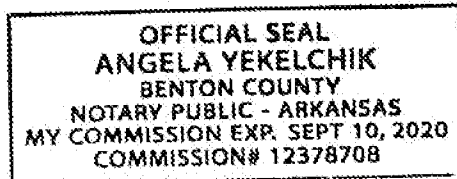
Name: Craig Sharkey  
Title: President

State of Arkansas )  
County of Benton ) ss:

On this, the 1<sup>st</sup> day of October, 2019, before me, a notary public, the undersigned officer, personally appeared Craig Sharkey, known to me (or satisfactorily proven) to be the person whose name is subscribed to the within instrument, and acknowledged that he executed the same for the purposes therein contained.

In witness hereof, I hereunto set my hand and official seal.

Angela D. Yekelchik  
Notary Public  
My Commission Expires: 9-10-20



# SCHEDULE 1

Reference	Title	Serial #	Patent #
1190	Systems and Methods for Clustering of Customers Using Transaction Patterns	16/544,876	
1188	Systems and Methods for Whole Page Personalization	16/525,298	
1193	System, Method, and Non-Transitory Computer-Readable Storage Media for Assigning Offers to a Plurality of Target Customers	16/565,420	
616	Systems and Methods for Inventory Replenishment and Allocation	15/420,769	
1186	Systems and Methods for Order Filling	16/505,256	
1185	System, Method, and Non-Transitory Computer-Readable Storage Media for Generating Synonyms of a Search Query	16/457,973	
1176	Systems and Methods for Utilizing a Convolutional Neural Network Architecture for Visual Product Recommendations	16/397,884	
1035	Systems for Learning and Using One or More Sub-Population Features Associated With Individuals of One or More Sub-Populations of a Gross Population and Related Methods Therefor	62/548,287	
1033	Automatic Personalized Email Triggers	62/622,511	
1034	Automatic Personalized Image-Based Search	62/622,543	
1028	Identifying Value Conscious People	62/623,454	
1029	Determining Brand Affinity of Customers	62/623,477	
633	Systems and Methods for Automated Recommendations	15/420,852	
1173	Systems and Methods for Distributive Data Storage	16/278,327	
632	Systems and Methods for Webpage Personalization	15/420,822	
1107	Systems and Methods for Dynamic Pricing	16/202,065	
587	Systems and Methods of Whole Page Personalization	15/420,757	10,366,133
635	Systems and Methods for Search Query Refinement	15/420,678	
1126	Synchronizing Database Data to a Database Cache	16/173,913	
961	System to Store, Manage Labels for Model Evaluation and Training	62/250,940	
434-P1	Network Device Inventory System	60/823,206	
597	Inventory Training	15/229,962	10,217,082
82	Automatic Selection of Featured Product Groups Within a Product Search Engine	14/295,195	10,169,798
1117	Methods and Systems for Prioritizing Stock-Keeping Units in Cost-Based Inventory Allocation	16/128,493	
1115	Routing Order Lookups From Retail Systems	16/121,424	
573	Systems and Methods for Order Filling	15/011,096	10,346,793
1106	System and Method for Capturing Seasonality and Newness in Database Searches	16/045,569	
1095	System and Method for Using Past or External Information for Future Search Results	15/910,851	

1128	Systems and Methods for Clustering of Customers Using Transaction Patterns	16/154,667	10,387,864
1114	Management of the Display of Online Ad Content Consistent With One or More Performance Objectives for a Webpage and and/or Website	16/154,516	
588	Use of Optical Images to Authenticate and Enable a Return With an Electronic Receipt	15/071,591	
68-PCT	Reward Structures	US1341714	
40	Audience Data Cloud	61/427,363	
41	Targeting Dynamic Advertisements to Online Users	12/580,623	
42	Displaying Retargeted Advertisements to Online Users	12/580,626	
37	Lead Feedback Analysis	12/580,635	
54	Digital-Marketing Platform for Structuring, Managing, and Optimizing Online Marketing Campaigns	12/580,617	
38	Selecting Optimized Creative Instances for Visitors Using Creative and Visitor Features	12/580,613	