

THE AMAZON'S A9 ALGORITHM

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ABSTRACT:

In the Amazon's website the products are displayed based on the ranking. The highest ranked product is displayed first in the Amazon's website. This ranking method is known as A9 Algorithm which is the search engine and search advertising technology. It is a search algorithm in which the products are ranked initially. A9 Algorithm delivers result through a two-step process:- First, they pull the relevant results from their massive "catalog" of product listings. Then, they sort those results into an order that is "most relevant" to the user. The products are ranked based on by considering 25 factors. The study on the existing system reveals that the initially given word in the search bar is first matched with either the products name or its brand. If the given search key is found matched then the relevant products are displayed. Else the product that match the keyword are displayed and those keyword are added as a new keyword to the products displayed while searching. When a product is searched rank is added to the corresponding product that is being searched which is done dynamically. The method used in ranking a product are Customer reviews, pricing, title, description and feedback. Initially the products are displayed based on categories. When the customer logs in for the second time the most frequently searched products are displayed in the screen. There is no age limiting factor which restricts the display of adult products. In the proposed system, we would enhance the existing system by introducing age limiting factor during sign up. This enhancement promotes safe search amongst younger generation.

INDEX TERMS (KEYWORDS):

Search Engine, Ranking algorithm, A9 algorithm, Limiting factor

INTRODUCTION:

In our day to day lives we tend to buy a lot of products from the shops which just drags our time down. It may be food, electronics, house hold items etc. In the trending universe, it is literally hard to find some time in order to go shopping.

Henceforth, B2C E- Commerce websites tend support humans in their shopping.

These websites helps in buying in goods, products and services which are provided in the shopping website (E-commerce site). The amazon online shopping system is one such system which is most commonly used by almost all youngsters and other people. Amazon surpassed Walmart as the most vulnerable retailer in the united states by market capitalization. Amazon promotes a wide range of products like electronics, apparels, clothes, etc. It is now gearing up in India to play a vital role in the grocery retail sector aimed at delivering customer needs. In the Amazon's website the products are displayed based on the ranking. The existing system classifies the products based on a variety of factors i.e, about 25 factors. The proposed system extends the existing system by including age category in order to promote easy and efficient classification of products and to provide a better way of recommendation to the registered customers.

EXISTING SYSTEM:

The online shopping websites promote easier purchase of various products at any time across the globe. The Amazon is one of the online shopping website which helps various agents to sell their product and customers to easily buy those products.

The Amazon is an American electronic commerce and cloud computing company founded by Jeff Bezos on 1994 which serves to one of the largest Internet retailer in the world. In the Amazon's website the products are displayed based on the ranking. The highest ranked product is displayed first in the Amazon's website. This ranking method is known as A9 Algorithm which is the search engine and search advertising technology. This algorithm is based on the rank given to each product & rank is based on 25 factors. It is a search engine in which the products are ranked initially. The following figure depicts the factors.

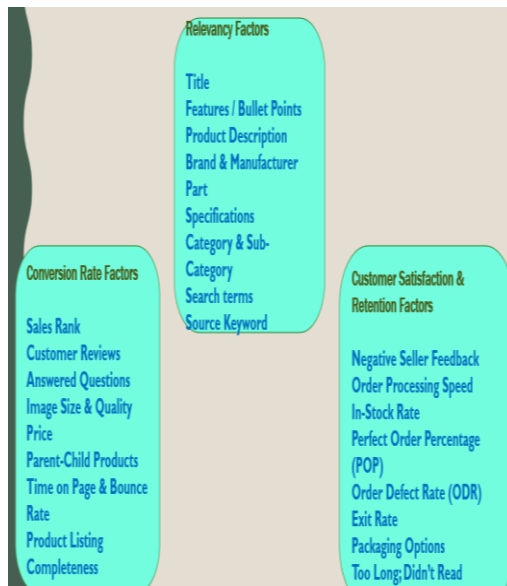


Fig:1

When a product is searched, rank is added to the corresponding product that is being searched. Amazon provides services not only for customers. It also extends its services to sellers. In Amazon there are four different methods for sellers to list their products.

- Scan your products to list.
- Match your products to the existing list.
- Use “Prepare your listings” feature to list many products.
- Use “Custom inventory template” to list many products.

The major rule of the amazon can be stated as follows:

1. Amazon’s top goal in everything they do is *always* maximize Revenue Per Customer (RPC)
2. Amazon tracks every action that a customer takes on Amazon, right down to where their mouse hovers on the page
3. The A9 algorithm exists to connect the data tracked in #2 to the goal stated in #1

The core pillars of amazon can be viewed as the following:

- Conversion rate which includes customer reviews, quality of image and pricing.
- Relevancy includes title and product description.
- Customer satisfaction and retention promotes seller feedback and order defect rate.

A VIEW ABOUT A9:

A9.com is one of the subsidiary of Amazon which is based in Palo, Alto, California It promotes product search, cloud search, visual search, augmented reality, advertising technology and community question answering. It develops search technology and search advertising technology. One of the purpose of A9.com was to leverage algorithms and the word “numeronym” represents it.

Under the direction of its first president, Udi Manber, A9 focused on several areas, including the A9.com destination website, product search, and a search advertising platform. Some early A9 services such as "search inside the book" continued, while others have been discontinued. The A9 search engine powers product search for Amazon.com and several other eCommerce retailers. In June 2009, A9 acquired SnapTell, which developed smartphone-based visual search applications. The past products of A9.com includes A9.com search portal, Open search, Block view, Clickriver, Community Question Answering and Cloud search. The recent projects supported by A9.com includes Product search, Visual Search and Advertising technology.

Apple And Amazon Have Mirror Opposite Content Strategies
All Three Tech Giants Can Co-Exist By Serving Different Audiences



			
Business goal	Sells content to sell devices	In content for user data	Sells devices to sell content
Strategy	Loss lead on content	Loss lead on content & devices	Loss lead on devices
Target consumers	Consumers that value device experiences	Consumers that value free / cheap experiences	Consumers that value content experiences

Fig:2

PROPOSED SYSTEM:

The Amazon which saves humans time a lot. In this proposed system we extended that system by introducing "age" as a main factor. This will reduce the waiting time of the customer while searching for a product. The products are also categorized by age. This will show the recommended product quickly to the customers. The recommendation promotes easy and safe search for the people. The age factor is necessary in order to process parent child products. This is essential in the point of customers since the customers promote nearly three by fourth of the e-commerce profit and progress. The first step in implementing the system is getting Date Of Birth (DOB) from the customer and then deriving the age from DOB. If the customer's age is less than the restricted age then he will be unable to purchase the adult products. The products that can be used only for his age can be brought. He will also be unable to view the adolescent products also.

CONCLUSION:

This system is developed in order to promote security and integrity among the entire system. This also promotes progress amongst the users. It also enriches the profit of the e-commerce sites.

The A9 algorithm in the existing system perceives the search and search advertising technology. It also includes various categories to impose secured search amongst the site. This will endure recommendations easily and categorisation in an efficient way. This will help the administrators to advertise their products based on the categories and recommendations.

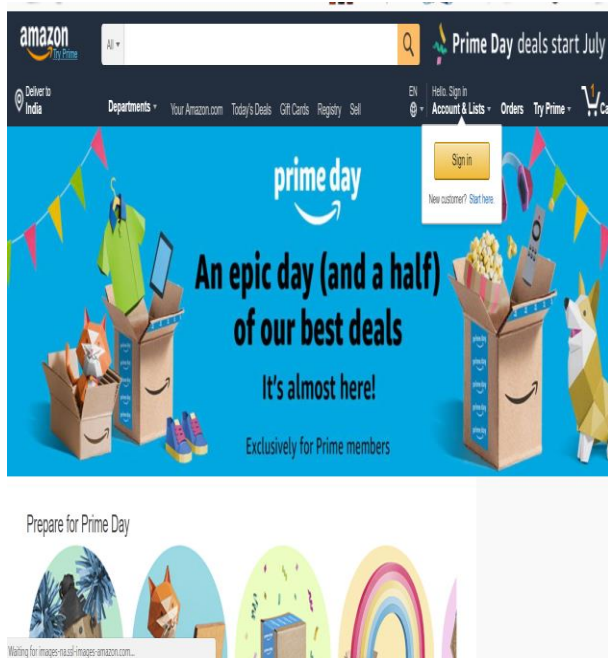


Fig:3

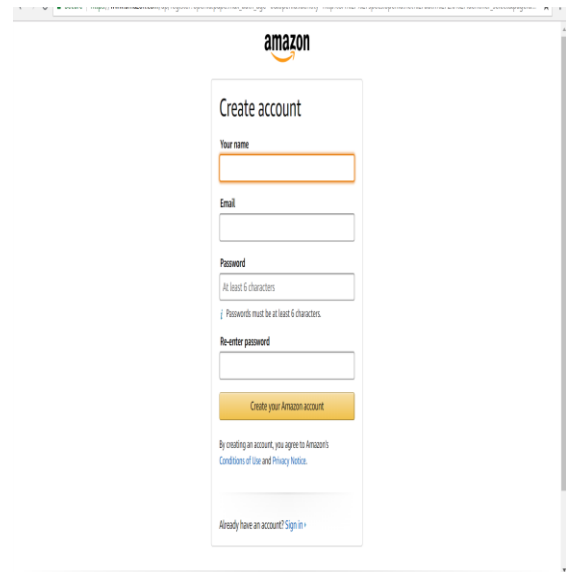


Fig:4

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