Recommendation Algorithms

Recommendation algorithms are essential for recommendation strategies and, if your account includes it, the Monetate Dynamic Bundles feature. These algorithms fall into two types:

- **Collaborative** — These algorithms leverage customer behavior, which you specify in the recommendation strategy or bundle configuration, as the basis for recommendations
- **Noncollaborative** — These algorithms don't require you to specify any additional behavior to serve as the basis for the recommendations

The algorithm that you select helps dynamically determine what products appear on your site in recommendation sliders and other displays.

Standard Algorithm Options

These recommendation algorithms are available in all accounts.

Noncollaborative Standard Algorithms

The Most Viewed (Product Detail Page), Top Selling by Purchase Count, and Top Selling by Gross Revenue recommendation algorithms always return results.

Top Selling by Purchase Count

Use this algorithm if you want to recommend products from the recommendation strategy's selected product catalog with the highest purchase quantity. It's eligible for geographic targeting as well as for use in a recommendation strategy for market-level recommendations and a recommendation strategy with offline purchases data.

Top Selling by Gross Revenue

The products recommended by this algorithm are those products with the highest gross revenue from the recommendation strategy's selected product catalog. It's eligible for geographic targeting as well as for use in a recommendation strategy for market-level recommendations and a recommendation strategy with offline purchases data.

Most Viewed (Product Detail Page)

This algorithm recommends products from the recommendation strategy's selected product catalog with the most product detail page views. It's eligible for geographic targeting and use in a recommendation strategy for market-level recommendations.

Recently Viewed

The products recommended by this algorithm are those products whose product detail pages the customer has viewed over the last 30 days. The products must also appear in the recommendation strategy's selected product

catalog.

Collaborative Standard Algorithms

Be aware that collaborative recommendation algorithms require certain interactions to occur *before* recommendations can display. Furthermore, the Viewed and Also Viewed algorithm probably won't return recommendations for new products.

Purchased and Also Purchased

This algorithm recommends products from the selected product catalog that other customers most frequently purchased along with the product(s) that meet the criteria that you select from **Base Recommendation on**. It's eligible for use in a recommendation strategy for market-level recommendations, in a recommendation strategy with offline purchases data, and in a Dynamic Bundle.

Viewed and Also Viewed

The products recommended by this algorithm are those products from the selected product catalog most frequently viewed after viewing the product(s) that meet the criteria that you select from **Base Recommendation on**. It's eligible for use in a recommendation strategy for market-level recommendations and in a Dynamic Bundle.

> ℹ️ You must contact your dedicated Customer Success Manager (CSM) to request that the Purchased and Also Purchased and Viewed and Also Viewed algorithms be made available for use with market-level data in a recommendation strategy.

Viewed and Later Purchased

Use this algorithm to recommend products from the selected product catalog most frequently purchased by customers who viewed the product(s) that meet the criteria that you select from **Base Recommendation on**.

Premium Algorithm Options

These recommendation algorithms are account add-ons.

> ℹ️ Contact your dedicated CSM if you want to add premium recommendation algorithm options to your Monetate contract.

Noncollaborative Premium Algorithms

Newest

This algorithm populates recommendations with products from the recommendation strategy's selected product catalog that have an availability date that falls between the current date and the selected lookback

period. They are ranked according to newness.

If you select this algorithm, then ensure that the product catalog you select for the recommendation strategy includes availability information so that the Monetate platform can determine which products are newest. While the Newest algorithm does return results without this key information, the results are essentially without value.

Trending Items by Purchase Count

This algorithm recommends products from the recommendation strategy's selected product catalog that sold the most in the last 7 days compared to the 30 days prior. It's eligible for use in a recommendation strategy for market-level recommendations and in a recommendation strategy with offline purchases data.

Similar Items

The products this algorithm recommends are those products from the recommendation strategy's selected product catalog that are in a product category and match a specific product catalog attribute chosen by the customer.

> ℹ️ You can only apply two recommendation filters to a recommendation strategy that uses the Similar Items algorithm: **Product Type** and any other catalog attribute.

Searched and Also Purchased

Use this algorithm to recommend products that were purchased by other customers who in the past 2, 7, or 30 days also searched for the same word or phrase used in the site visitor's most recent search query.

> ⚠️ As Monetate continues to develop the search capabilities related to the Search and Also Purchased recommendation algorithm, your account may need to be updated so that you can make use of the full capabilities of this recommendation algorithm. Therefore, you must take the following two actions.
>
> Contact your dedicated CSM to request that the latest script for this recommendation algorithm be pushed to your account and that a feature flag specific to this recommendation algorithm be enabled.
>
> Implement one or both of these Monetate JavaScript API method calls. One method call is for site search, and the other is for category search. Implementing both is preferred.

```
// Site Search
window.monetateQ.push([
  "addSearch", {
    "searchTerm": "this is a test",
    "searchType": "site"
  }
]);
window.monetateQ.push([
  "trackData"
]);
```

```
// Category Search
window.monetateQ.push([
  "addSearch", {
    "searchTerm": "kids",
    "searchType": "category"
  }
]);
window.monetateQ.push([
  "trackData"
]);
```

Engagement Optimized

If the customer is viewing or has viewed one or more products in the current session, this algorithm recommends products from the recommendation strategy's selected product catalog most frequently viewed after viewing the product currently on the page over the last 30 days. If the customer has not viewed any products in the current session, then the algorithm recommends products from the catalog with the most product detail page views over the last 30 days.

Replenishment

Use this algorithm to recommend products that the customer regularly buys based on the average repeat purchase duration specific to that customer and item. The customer must have purchased the product at least twice within the past 180 days to qualify to be considered by the algorithm.

Most Popular

This algorithm recommends the most popular products based on total product detail page views over the past 365 days.

Collaborative Premium Algorithms

Items Frequently Bought Together

The products recommended by this algorithm are the second-most–purchased items based on the Purchased and Also Purchased rankings, with purchases counted across sessions. It's eligible for use in most

recommendation strategies and in a Dynamic Bundle.

> ℹ️ Items that are the same product type as the context item(s) are excluded from the purchase count.

Subsequently Purchased

This algorithm recommends products that other customers purchased after they bought the product(s) that meet the criteria you select from **Base Recommendation on**. The algorithm takes into account the order in which those other products were purchased. It's eligible for use in most recommendation strategies and in a Dynamic Bundle.

Client-Managed Algorithm Options

The **Onboarded Recommendation Dataset** recommendation algorithm option appears if you have uploaded at least one Recommendations dataset to the account. This collaborative algorithm recommends products from a Recommendations dataset that correspond with the basis for the recommendations that you select when configuring the recommendation strategy or Dynamic Bundle.