

# Performing Assisted Discovery

- [Overview](#)
- [Using Assisted Discovery](#)
  - [Changing the data set](#)

## Overview

Assisted Discovery allows Yellowfin to automatically generate charts and insights through the report builder. The feature is activated using the Smart Analysis button on the report builder toolbar when the required data is added to the columns fields. An Insight Wizard helps provide the context for the analysis, and uses that information to generate charts and explanations, as opposed to a manual data discovery process.

The Insight Wizard contains the following options:

Option	Description
Explain Metric	Select this option to better explain a single metric. Yellowfin will identify related data that influences the chosen metric. Select your metric of interest from the next dropdown.
Compare Metrics	Select this option to compare the values and drivers of two chosen metrics. For example, comparing Actual Revenue (metric) to Planned Revenue (metric).
Compare Dates	Select this option to compare a single metric across two time periods. You will need to configure the following information using the dropdown menus: <ul style="list-style-type: none"><li>• The specific date field that represents the time period.</li><li>• The metric you want to compare.</li><li>• The two time periods you want to compare.</li></ul> For example, comparing Actual Revenue (metric) for Sales Date (date field) from this year to last year (time periods).
Compare Dimensions	Select this option to compare a metric across two dimensions. You will need to configure the following information using the dropdown menus: <ul style="list-style-type: none"><li>• The metric you are comparing.</li><li>• The specific values of the dimension.</li></ul> For example, comparing Invoiced Amount (metric) between Regions (dimension) Asia and Europe (dimension values).
Higher values are	Select whether higher numeric values are 'good' or 'bad' for the analysis result. For example, a higher profit margin value is typically good, but a high cost value is typically bad.
Fields to Analyze	Select or deselect specific fields to narrow down the analysis.  For example, remove any fields that are not likely to be relevant, such as Date of Birth. Removing fields can help to improve the processing time of your analysis.
Number of unique values allowed in a field	Set the maximum number of values for Yellowfin to include in the analysis. For example, setting the value at 500 for will only include the first 500 values for the selected fields.

Assisted Discovery must be [configured at the view level](#) by an admin before [making it available to users](#).

Assisted Discovery can only be performed on standard reports with at least one metric and 2 dimensions. Cross-tab reports, sub query reports, and reports containing only dimensions are not supported. When building a report for Assisted Insights, only add values to the columns section.

[top](#)

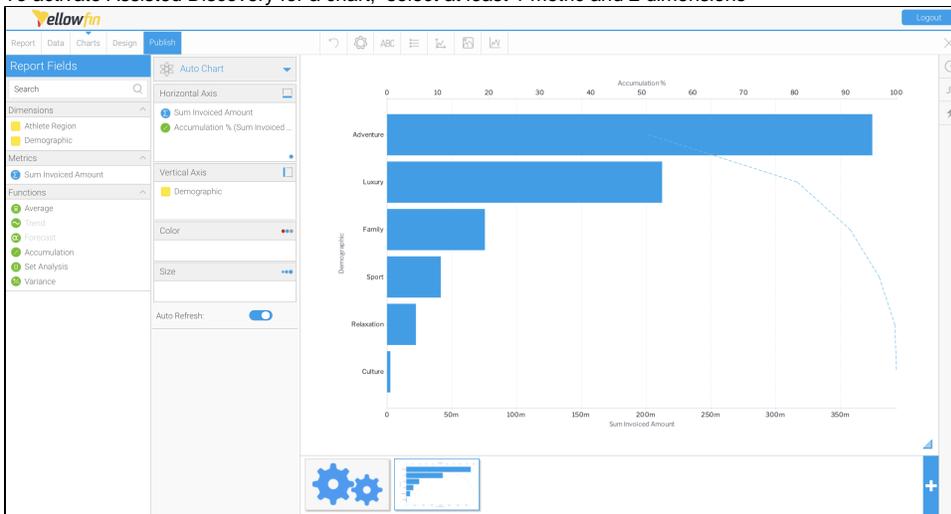
## Using Assisted Discovery

Note: the Report Builder toolbar has been updated in recent versions of Yellowfin. Images in this section depict the legacy toolbar that was present in versions 9.12 and earlier.

This guide outlines how to perform Assisted Discovery when building reports.

1. Click the Create button and click **Report** to create a new report

- Use your mouse to drag your data from the left panel to the **Columns** fields  
To activate Assisted Discovery for a chart, select at least 1 metric and 2 dimensions



- Click on the Smart Analysis  button on the report builder toolbar  
The Insight Wizard dialog box will appear, allowing you to customize your discovery

- From the left **dropdown**, select **Explain Metric** as the type of analysis you would like to perform  
Selecting this option will allow Yellowfin to discover the drivers for a single metric, or compare metrics and dimensions to understand differences

Insight Wizard ✕

I want to

[Advanced settings ↓](#)

5. Expand the **Advanced Settings** option  
The Insight Wizard allows you to apply additional preferences to your chart

Insight Wizard ✕

I want to

Higher values are

Fields to Analyze

- Athlete Region
- Demographic

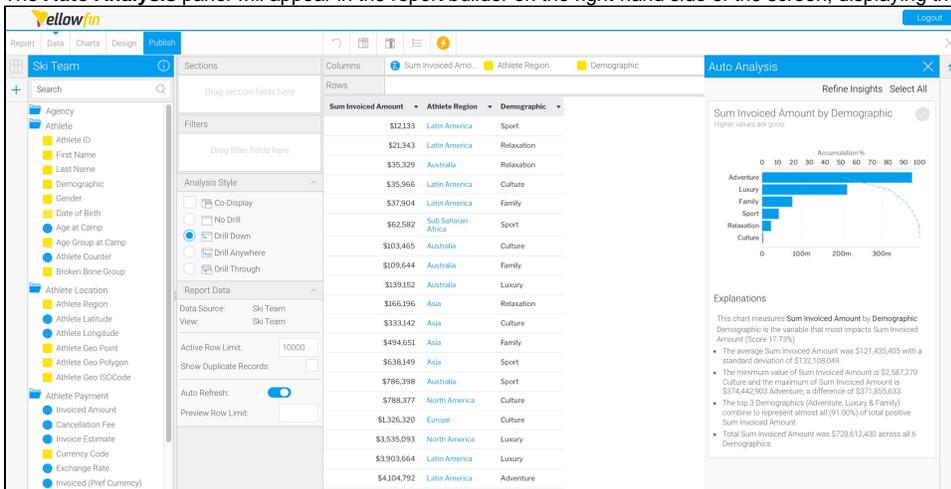
Number of unique values allowed in a field

[Less ↑](#)

- Click the **Higher values are** dropdown, and select **Good** to provide the context for Yellowfin that higher values in your data are considered to be desirable
- Select all fields within the **Fields to Analyze** box you would like Yellowfin to analyze  
You can deselect or select any fields you to wish to either narrow down or expand the scope of the analysis
- Set the maximum number of unique values allowed in the fields  
In this case, we only want the first 500 unique field values included in the analysis



- Click on the **Continue** button to perform the analysis  
The **Auto Analysis** panel will appear in the report builder on the right-hand side of the screen, displaying the results of the analysis



Yellowfin will generate a natural language analysis, and also display the most appropriate charts for your insights (depending on the data)

Auto Analysis ✕

Refine Insights Select All

Sum Invoiced Amount by Demographic ✔

Higher values are good

Demographic	Sum Invoiced Amount (m)	Accumulation %
Adventure	~374,442,903	~91.00%
Luxury	~258,727,000	~67.00%
Family	~121,435,405	~32.00%
Sport	~132,108,049	~36.00%
Relaxation	~2,587,270	~0.70%
Culture	~2,587,270	~0.70%

Explanations

This chart measures **Sum Invoiced Amount** by **Demographic**. Demographic is the variable that most impacts Sum Invoiced Amount (Score 17.73%)

- The average Sum Invoiced Amount was \$121,435,405 with a standard deviation of \$132,108,049.
- The minimum value of Sum Invoiced Amount is \$2,587,270 Culture and the maximum of Sum Invoiced Amount is \$374,442,903 Adventure, a difference of \$371,855,633.
- The top 3 Demographics (Adventure, Luxury & Family) combine to represent almost all (91.00%) of total positive Sum Invoiced Amount
- Total Sum Invoiced Amount was \$728,612,430 across all 6 Demographics

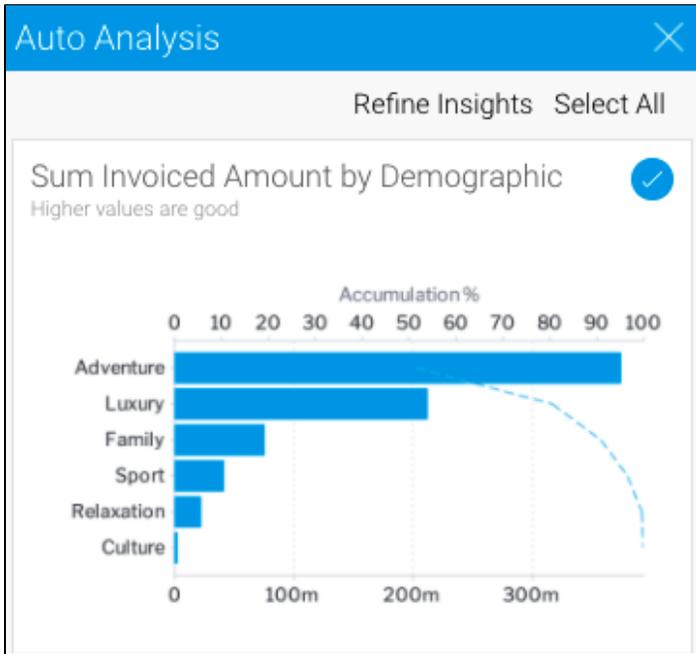
10. Click on the chart to view an enlarged versions

Sum Invoiced Amount by Demographic ✕

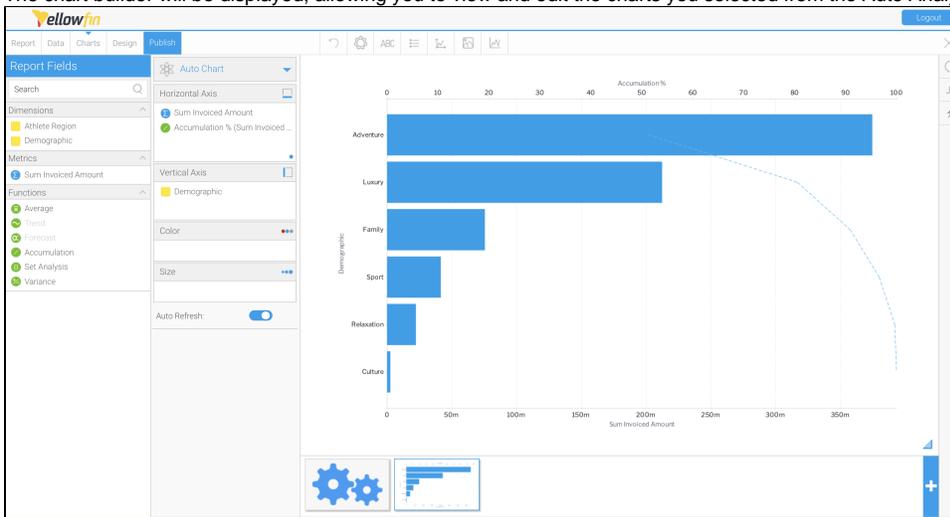
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11. Click on the **round tick button**  in the top right-hand corner to select or deselect each insight to save to the chart builder. You can go back to the Insights Wizard to choose a different type of analysis option by clicking on the Refine Insights button



12. Click **Charts** in the toolbar to proceed to the chart builder  
The chart builder will be displayed, allowing you to view and edit the charts you selected from the Auto Analysis panel



You can view any unselected automated charts by clicking on the **Insights button**  on the right-hand side of the screen

You have now created relevant report content with a fraction of the effort it would normally take to analyze data and build reports. These charts can be used to build and publish reports in the usual way.

If you choose to re-run the Assisted Discovery process, the charts from the previous analysis will be removed from the Auto Analysis panel, but will remain in the chart builder.

On performing Assisted Insights, a report is generated by Yellowfin in the background and saved in the configuration database, which is the basis for the auto insights charts and natural language narratives. If you choose to discard the insights, the reports will not be used. The system will carry out a check for these orphan reports every 48 hours, and delete any that are unused.

[top](#)

## Changing the data set

Yellowfin allows you to change the data set of an Assisted Discovery report, even after insights have been created. Once a data set is altered, you have the following Assisted Discovery options:

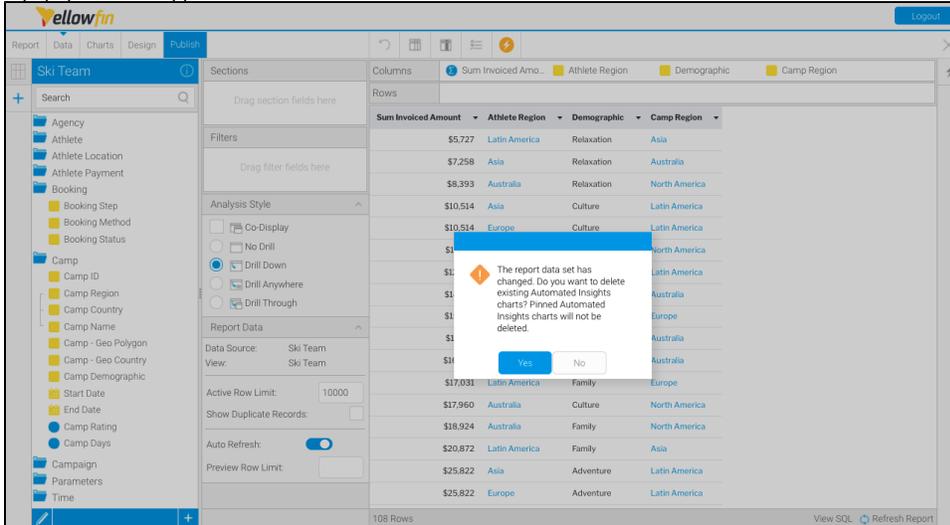
- Perform a new Smart Analysis on the new data set, deleting all unsaved insights in the process.
- Don't perform a new Smart Analysis on the new data set, retaining existing insights.

Both options allow you to manually configure your data and build new charts.

The following steps describe the process of performing Assisted Discovery with a new data set.

1. Open a published report with Assisted Discovery auto analysis applied
2. Click on **Data** in the report builder toolbar and add or remove metrics or dimensions to the **Columns** field for that report
3. Click on the **Smart Analysis button**  on the report builder toolbar

A popup alert will appear

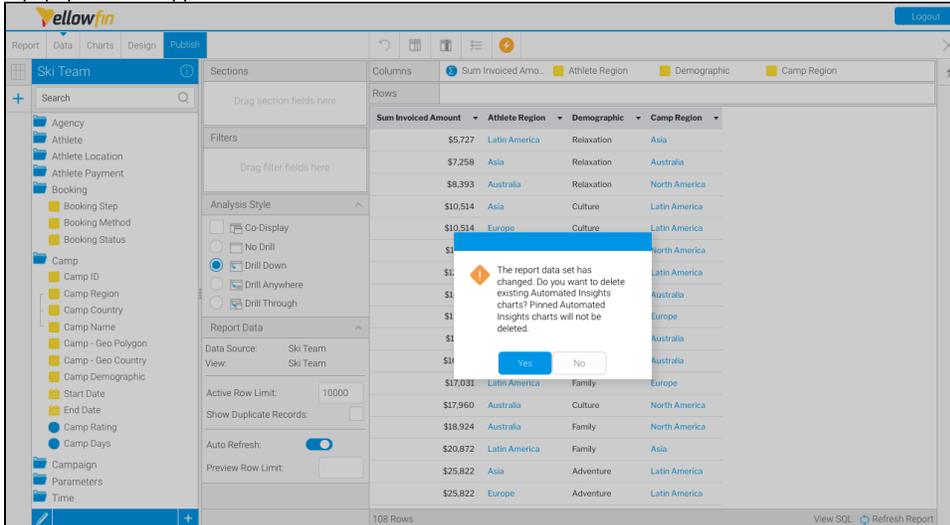


The screenshot shows the Yellowfin report builder interface. A table displays data with columns: Sum Invoiced Amount, Athlete Region, Demographic, and Camp Region. A popup alert is displayed over the table, asking: "The report data set has changed. Do you want to delete existing Automated Insights charts? Pinned Automated Insights charts will not be deleted." The alert has "Yes" and "No" buttons.

Sum Invoiced Amount	Athlete Region	Demographic	Camp Region
\$5,727	Latin America	Relaxation	Asia
\$7,258	Asia	Relaxation	Australia
\$8,393	Australia	Relaxation	North America
\$10,514	Asia	Culture	Latin America
\$10,514	Europe	Culture	Latin America
\$11,000	North America	Relaxation	North America
\$11,000	Latin America	Relaxation	Latin America
\$11,000	Australia	Relaxation	Australia
\$11,000	Europe	Relaxation	Europe
\$11,000	Australia	Relaxation	Australia
\$11,000	Latin America	Relaxation	Latin America
\$17,031	Latin America	Family	Europe
\$17,960	Australia	Culture	North America
\$18,924	Australia	Family	North America
\$20,872	Latin America	Family	Asia
\$25,822	Asia	Adventure	Latin America
\$25,822	Europe	Adventure	Latin America

4. Click **No** to retain your previous insights and cancel the Smart Analysis request, even though the data set has changed. The report builder will be displayed, and previously saved insights will remain
5. Click the **Insights button**  on the right-hand side of the screen to view previously saved insights. Note that your previous insights will remain in the Auto Analysis panel
6. Click the **Insights button**  on the right-hand side of the screen to close the Auto Analysis panel
7. To develop new insights from the new data set, click on the **Smart Analysis button**  on the report builder toolbar

A popup alert will appear



This screenshot is identical to the one above, showing the same data table and the Smart Analysis popup alert.

8. Click **Yes** to delete the current insights and begin the process from scratch. Previously saved insights from the Auto Analysis panel will remain in the chart builder, but all other insights in the panel will be deleted

