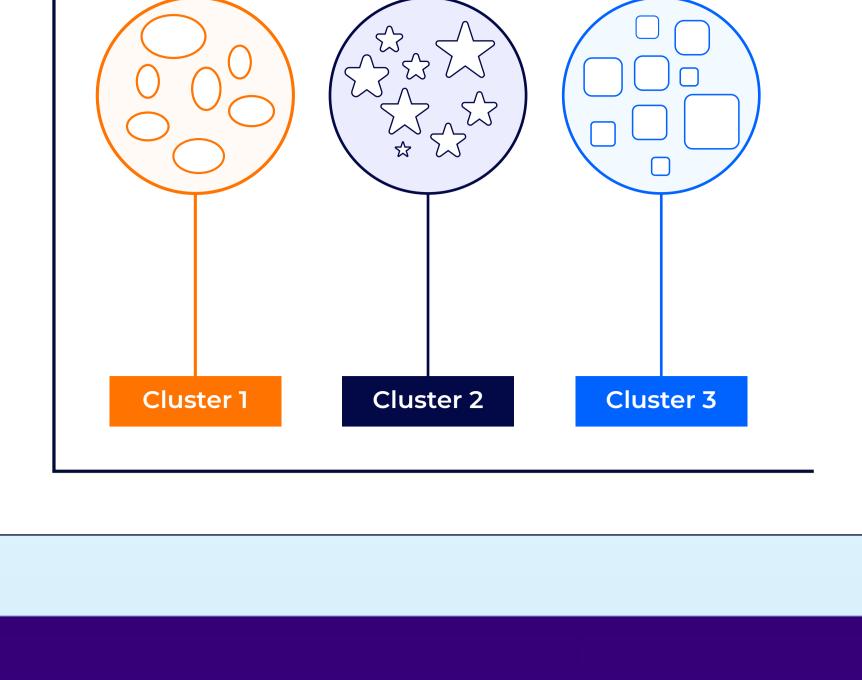


concerns, enabling insights, improved response times, and effective issue resolution.

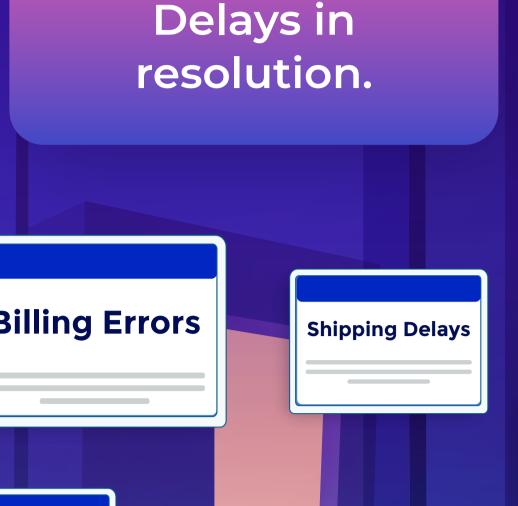
What is Case clustering?





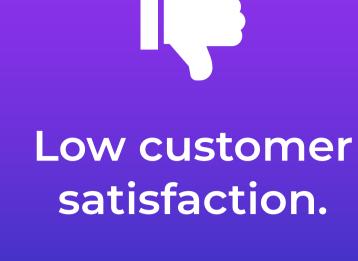
Customer support teams often face overwhelming tickets, many with recurring issues. This leads to:

The Maze of Support Cases





Login Issues









Shipping

Delays

Billing Errors



Login Issues

Turning Chaos into Clarity

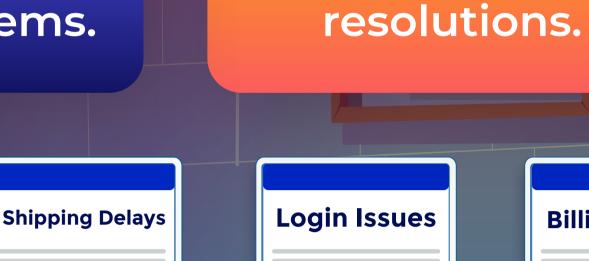
Case clustering uses AI to group similar tickets based on patterns like keywords, themes, or issue types. This empowers teams to:

of average tickets in the support



Spot recurring

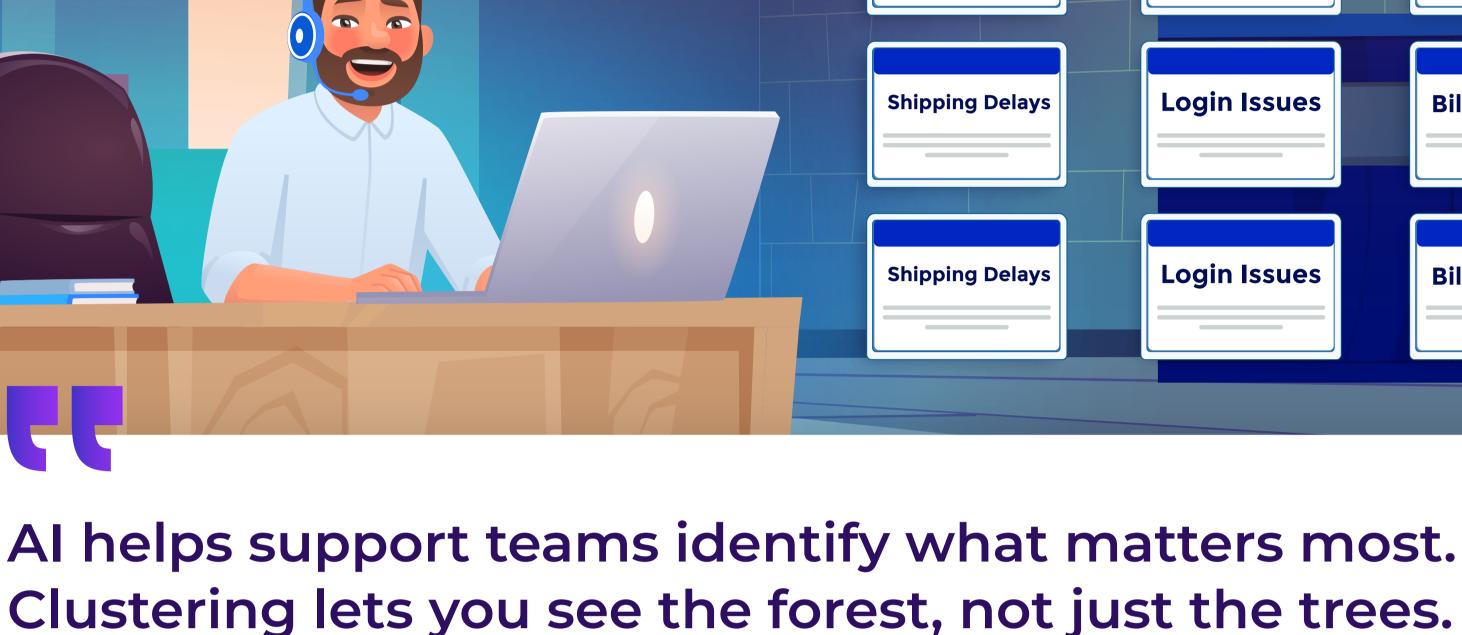






Billing Errors

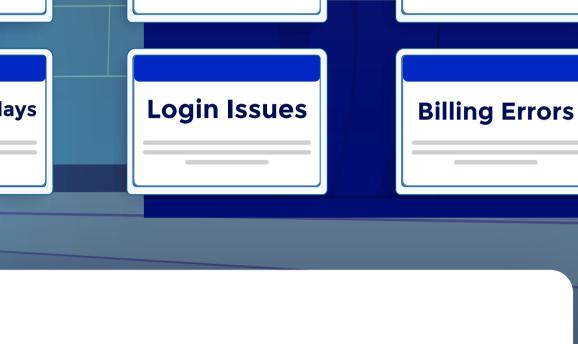
Automate repetitive



Shipping Delays Shipping Delays

Prioritize high-

impact problems.



Types of Clustering Hard Clustering Soft Clustering

-Gartner's Report on Al For Support Teams

"fuzzy clustering" due to blurred boundaries. **Example:** Segmenting four customers into four distinct groups,

exactly one customer.

where each group corresponds to

Assigns data points exclusively to

one cluster. Each point belongs to

only one group.

- - **Types of Cluster Models**

purchase behavior.

Data points can belong to multiple

clusters based on their similarity to

each other and often referred to as

Group customers into overlapping

segments, e.g., based on age and

Clusters are formed using clustering algorithms (or cluster models)

that group similar data points based on their attributes. These models

are the backbone of clustering techniques.

Cluster models help group data by uncovering

patterns. Here are the key types:

Centroid-based Hierarchical Models Models Divide data Example: K-Means, step-by-step into where each cluster smaller subgroups is represented by until each holds one its mean vector.

data point.

Distribution

Models

Uses statistical

distributions to

define clusters.

etc. **Graph-based**

Models

Clusters form

when subsets of

graph nodes

connect entirely

within a group.

Density

Models

Clusters are dense

data regions in

space. Examples:

DBSCAN, OPTICS,

Neural Models Example:

Connectivity

Models

Groups data based

on proximity, linking

close points to

form clusters.

Group

Models

Offers grouping

info without

refined results.

Using the right clustering model boosts data analysis efficiency by 40%

1. Euclidean Distance

The go-to measure for

machine learning.

What is it?

What is it?

What is it?

A flexible

generalization of

Manhattan distances.

Euclidean and

Measures the

"city block" distance.

Clustering reveals the distance between data points to group them meaningfully. **How it works** Why use it? Easy to understand, Calculates the square root of the sum of computationally squared differences efficient. between two points.

Self-organizing maps

(unsupervised

neural networks).

The ABCs of Clustering Distances

2. Manhattan Distance

Why use it?

Why use it?

Adapts to different

data and scenarios.

Ideal for grid-like

data structures.

3. Minkowski Distance

How it works

• If p = 2, it's Euclidean.

• If p = 1, it's Manhattan.

two points.

How it works

Adds up the absolute

differences between

the coordinates of

distance metric improves grouping accuracy by 35%

1. Enhanced Customer

Segmentation

What it does:

Level Up Your Enterprise Support With Case Clustering

Did you know clustering with the right

Bases (KBs)

2. Organized Knowledge

What it does: Groups customers by demographics, Groups documents by topic relevance. behaviors, or purchase history. Why it matters: Why it matters: Ensures quick information retrieval and seamless knowledge Drives targeted marketing, smarter product development, and better management for data-heavy organizations. decision-making.

- 3. Optimized Customer Retention
 - What it does:

Enables product improvements,

builds brand loyalty.

boosts customer satisfaction, and

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- Identifies recurring customer issues from tickets, chats, and social media. Why it matters:

What it does:

support.

- 4. Accelerated Resolutions
- Groups similar cases for faster handling by agents. Why it matters:

Speeds up resolutions and enhances

satisfaction with prompt, effective





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