

# Vue.ai's Automated Product Tagging Solution

-A Report



It all goes back to

## High quality product data

Inconsistent or inaccurate product data results in a fractured product discovery experience in an e-commerce store. Retailers aiming to gain traction on the digital maturity curve often find that robustness of product data is their Achilles heel..

### Product Data Quality Checklist

- Do your product pages have a detailed description about the product?
- Are there at least 8 visual product attributes listed on the Product page?
- Do these attributes cover information on Style and occasion of the product?
- Is the product image in focus? Is the entire front view of the product visible?
- Are multiple images provided for the same product?
- Are there virtually no null result searches on your e-commerce website?
- Is every product description page enhanced with SEO based tags?
- Does product content quality assessment process take up a major chunk of your team's data generation process?

It all goes back to

## High quality product data

### Product Pages

**88%**

of customers think detailed product pages are crucial for making a purchase decision

### Site Search

**80%**

of consumers abandon a site after a poor search experience due to irrelevant results

### Shopper Experience

**75%**

of consumers prefer brands that offer personalized messaging, offers, and experiences

### Understanding Assortment

**56%**

of retailers claim inventory accuracy is a problem for their omnichannel efforts

**Poor data quality** is responsible for an average of **\$15 million per year** in losses<sup>\*</sup>

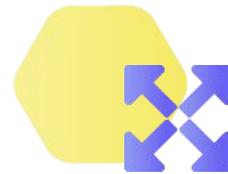


# Limitations of Manual Tagging



## Unstructured Data

Manual tagging increases the chances of product data with misaligned structure, taxonomy



## Lack of Scalability

Regardless of how many teams are working on tagging, the sheer volume of products presents a scalability issue.



## Inaccuracies in Vendor Data

Marketplaces have stringent requirements - for instance, they check for a minimum of 16 key attributes per product, leading to inaccuracies.



## Inefficient Manual Assessment

Teams spend 25% of their time reviewing and editing product data.



# Benefits of A.I. Generated Product Tags

AI-based automation optimizes process efficiency while enhancing the quality and reliability of product data. Automated tagging results in **faster, cleaner and better data**.

## Rich, Optimized Product Metadata

Enrich catalogs with tags extracted from visual attributes. Automatically label products using Visual intelligence, enabling your teams to spend lesser time/effort in manually labelling.

## Standardised, Clean Catalogs

The automated image tagging system creates an impeccable product catalog with consistent and accurate product data.

## Custom Taxonomy For Each Business

A.I algorithms continuously learns new categories and attributes to enable discoverability. Any new taxonomy can be introduced as tags and trained, while supporting new categories and custom mappings based on client ontology or recent trends.

## Faster Product Onboarding

Automated product tagging is completed at a fraction of the time that it takes manual product tagging. It has been shown to improve catalog processing time by up to 90%

## Automated Quality Assessment

Reduce time taken to carry out manual assessment by automating the process with AI. Human intervention only required to evaluate and modify tags if required.

# High quality product data is the Foundation for digital maturity

## Robust Product Discovery

Enable shoppers to browse through entire catalogs faster with accurate relevant search results. Provide multiple filters and layered tags to enable shoppers navigate easily.

## Dynamic Personalization

With detailed product data, retailers can have a deeper understanding of shopper intent & personalize product recommendations for each shopper.

## Improved Catalog Management

Automated visual tagging helps retailers effectively manage their customer segments and tiers; enabling them to adapt to seasonal and segment specific trends.

## Easy Vendor Onboarding and Integrations

Ever-growing product portfolios pose a challenge for online marketplaces. AI helps categorize in compliance with marketplace regulations even when new products and categories continue to get added.

According to IBM's latest study, the adoption of AI-driven intelligent automation in retail and consumer product industries is expected to increase from **40% to 80%** in the **next 3 years**.

# Automated Product Tagging

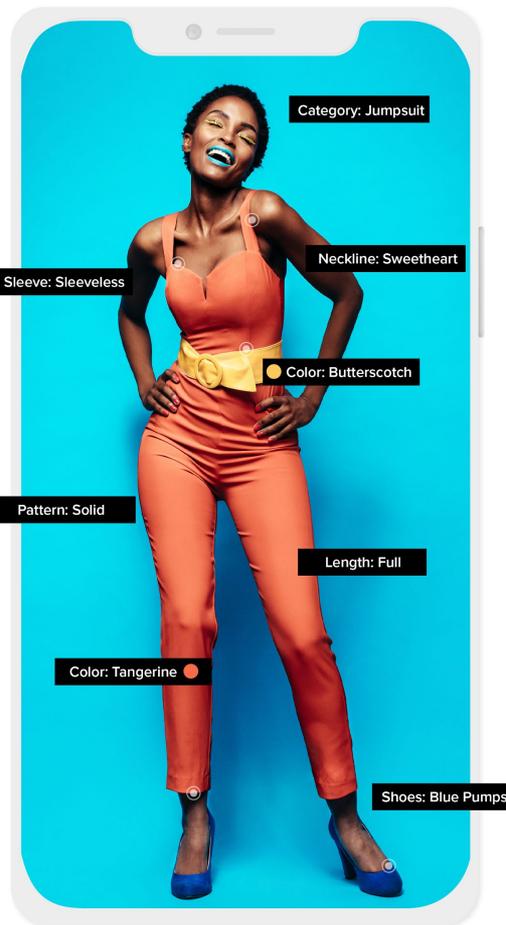
With tags trained specifically for Fashion & Apparel

**300+** Attributes



# VueTag: Visual AI-based

## Automated Product Tagging Solution



VueTag uses image recognition and text to extract product attributes like category, gender, color, pattern, dress length, sleeve length, neckline.



VueTag improves search experiences and product discovery



VueTag improves productivity of catalog teams



VueTag provides deep, meaningful insights into assortment



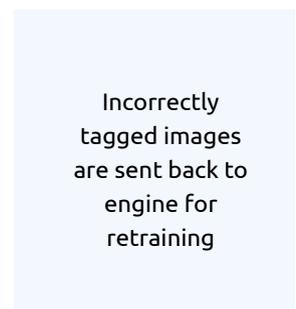
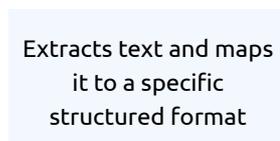
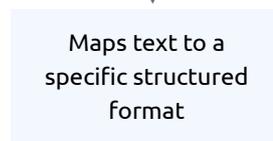
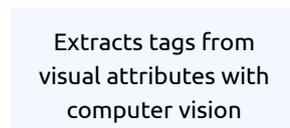
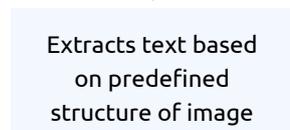
VueTag produces high quality, rich metadata for product catalogs



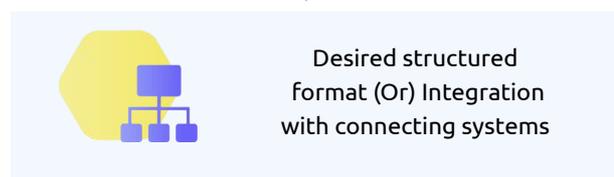
VueTag builds a strong foundation for the retailers journey on the digital maturity curve

# How VueTag works

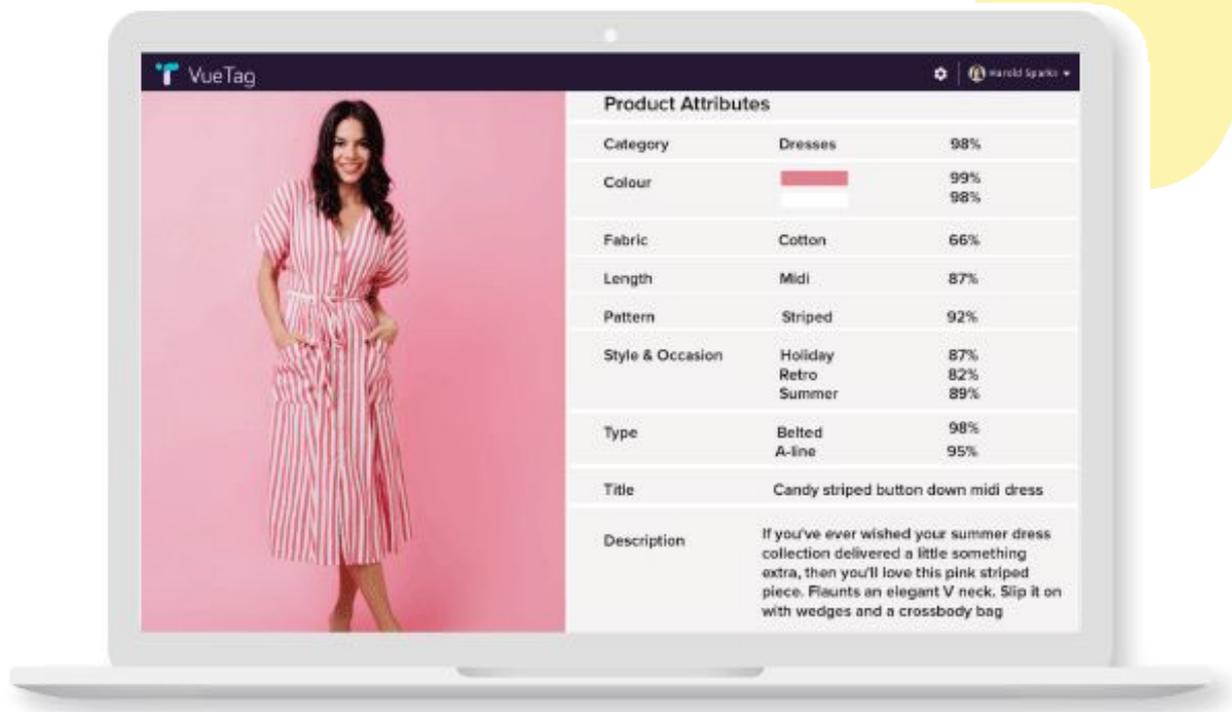
## INPUT



## OUTPUT



# Enhancing Product data



1

Extract attributes from images.

3

Train custom ontology to support new categories

2

Extract attribute from text metadata.

4

Generate consistent product titles and descriptions

Use VueTag's automated product tagging to create and enrich product catalogs with robust, granular product tags.

# Benefit:

## Data Standardization

Standardising data across the catalog is essential for unifying the shopper experience across channels, aiding in accurate decision making as well as integrating with other retail formats.



CATEGORY: **DRESS**

NECK: **CLASSIC COLLAR**

COLOR: **OLIVE**

PATTERN: **STRIPE**

SLEEVE: **HALF-SLEEVE**

LENGTH: **MIDI**

TYPE: **SHIFT**

**Fix Erroneous information with correct tags**

**Generate Highly-specific tags**

**Add Missing attributes**

VueTag generates tags with standardized information- reconciling and generating content in the process. Product data is generated with a combination of computer vision and NLP techniques to provide tags that are highly specific for fashion and optimized for performance.



# Benefit:

## Improved Data Accuracy

VueTag can accurately identify nuanced product attributes and generate relevant tags for the product. These AI-generated tags with improved prediction scores translate to efficient systems and faster digitization.



Product Attributes	
Category	Dresses
Colour	
Fabric	Cotton
Length	Midi
Pattern	Striped
Style & Occasion	Holiday Retro Summer
Type	Belted A-line
Title	Candy striped button down midi dress
Description	If you've ever wished your summer dress collection delivered a little something extra, then you'll love this pink striped piece. Flaunts an elegant V neck. Slip it on with wedges and a crossbody bag

Often, various problems in legacy systems result in inaccurate attribution and feed into various channels, working its way into product pages.

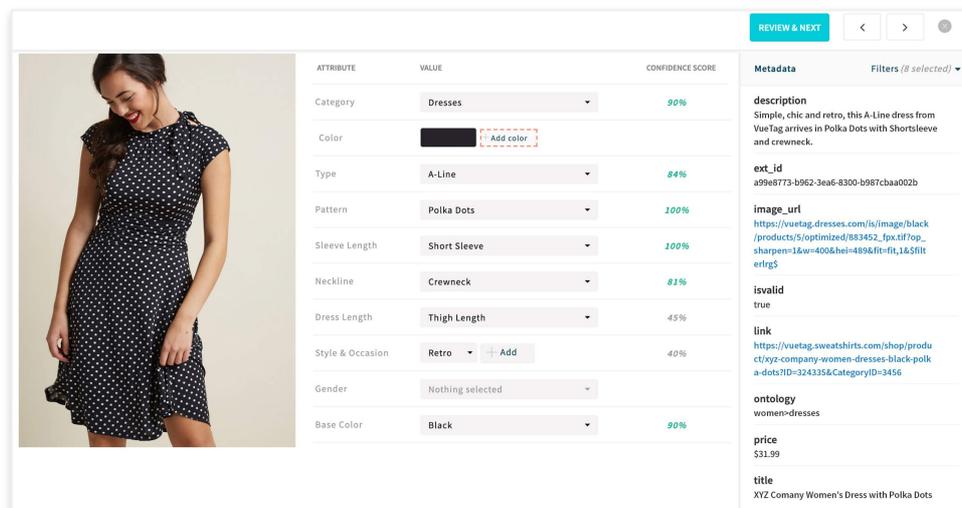
VueTag's AI engine retrains networks with user feedback received from reviewing predicted tags. With each round of feedback, the system gets better at detecting nuances of the products for sharper, consistent outputs. Within just a few iterations, the networks are able to surpass human prediction.

# Benefit:

## Automated Quality Assessment

VueTag improves the process teams have to often carry out in order to ensure product data is detailed and suitable for the shoppers.

Often, Retail teams have to review itemized product catalogs by manually comparing it with any other additional information that may be available in the form metadata- a process that poses a scalability challenge for most businesses.



The screenshot displays the VueTag interface for a product. On the left is a photo of a woman wearing a black dress with white polka dots. The main area is a table of attributes with their values and confidence scores. On the right is a metadata panel with various product details.

ATTRIBUTE	VALUE	CONFIDENCE SCORE
Category	Dresses	90%
Color	Black <span>Add color</span>	
Type	A-Line	84%
Pattern	Polka Dots	100%
Sleeve Length	Short Sleeve	100%
Neckline	Crewneck	81%
Dress Length	Thigh Length	45%
Style & Occasion	Retro <span>+ Add</span>	40%
Gender	Nothing selected	
Base Color	Black	90%

**Metadata** Filters (0 selected)

**description**  
Simple, chic and retro, this A-Line dress from Vue Tag arrives in Polka Dots with Shortleeve and crewneck.

**ext\_id**  
a99e8773-b962-3ea6-8300-b987c8aa002b

**image\_url**  
[https://vuetag.dresses.com/ls/image/black/products/5/optimized/883452\\_fpx.tif?op\\_sharpen=1&w=400&hei=488&fit=fit,1&5f1t=er1g5](https://vuetag.dresses.com/ls/image/black/products/5/optimized/883452_fpx.tif?op_sharpen=1&w=400&hei=488&fit=fit,1&5f1t=er1g5)

**isvalid**  
true

**link**  
<https://vuetag.sweatshirts.com/shop/product/xyz-company-women-dresses-black-polka-dots?ID=324335&CategoryId=3456>

**ontology**  
women=dresses

**price**  
\$31.99

**title**  
XYZ Comany Women's Dress with Polka Dots

VueTag automates quality assessment by simplifying the process of moderating product related information. Human intervention is needed to only run a quick check and modify tags in order to comply with internal requirements if any. In addition, automating quality assessment minimizes the rate of error propagation through associated point of sale, thereby saving on loss of sale and discoverability.

# Flexibility of Tagging

In addition to tagging Professionally Generated Content, VueTag can extract attributes from a wide range of input options such as:



Noisy/ busy background



Hanger Images



Flat Lay Images

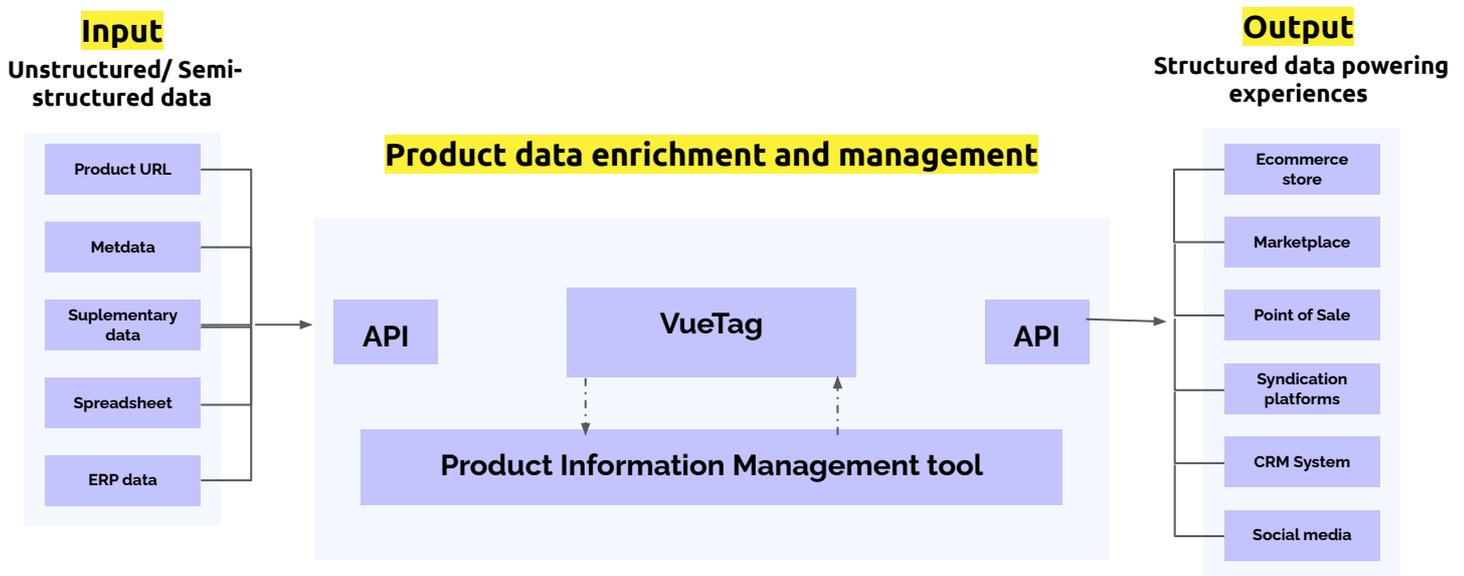


Product Sketches

# Ease of Integration

With complex platforming in position, businesses often have trouble with data migration and data management. Since brands sell via multiple retailing platforms, the content and format required for each retailer would be different.

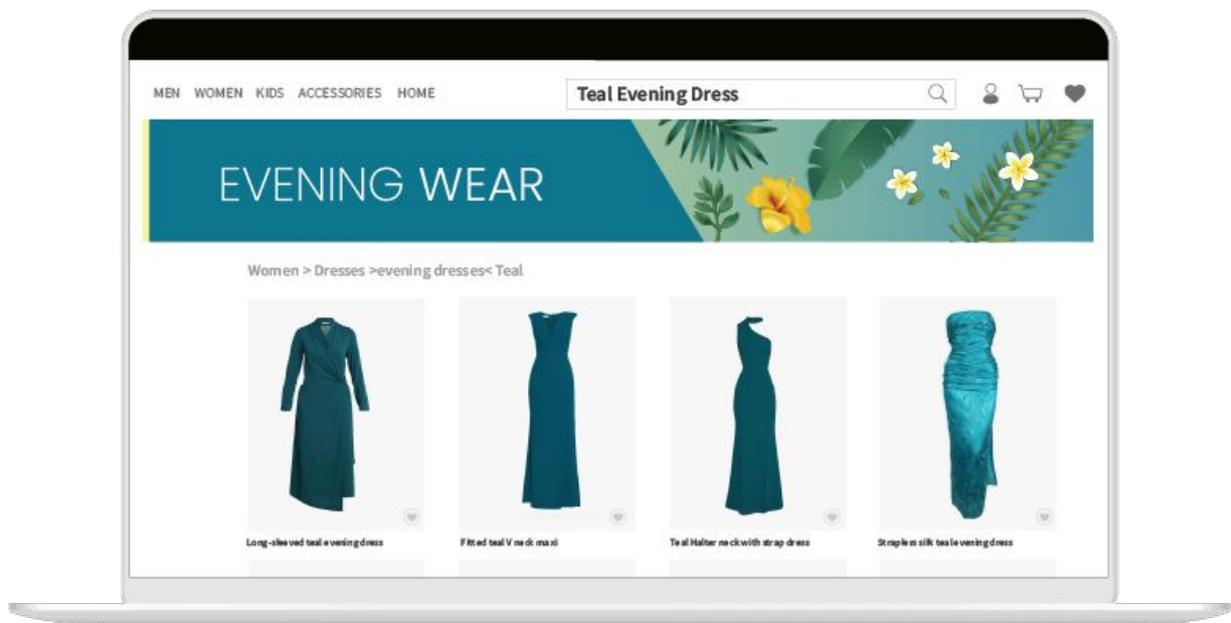
Enriching existing product data in addition to generating product data and distributing it across various customer touchpoints ensures that shoppers are accessing the latest, accurate product information in real time.



Conventional data companies offer only limited support in formatting the data again paving the way to significant gaps. The end result is missing product information and duplicated listings. Consequently, automating aspects of the product enrichment process with a reliable solution can make or break the stream of product content chain.

# Application: Product Discovery

VueTag's visual AI generates consistent and accurate product attributes which is key driver in improving discovery on search engines as well as being able to provide relevant product search results.



VueTag powers product filtering, a crucial part of the search and discovery journey. AI generated product tags enhances the performance of the filtering function by providing a wider range of detailed tags that can help shoppers find products most relevant to them.

AI generated product tags can optimize parts of the product discovery experience such as the zero results page or in mapping relevant products to wrongly typed search keywords.

# Application: Catalog Management

Retailers often have large teams who spend weeks compiling, updating, and publishing product data, a long and tedious part of the catalog management process. VueTag helps brands and retailers effectively manage their ecommerce product catalog.



The algorithm helps team eliminate week-long manual digitization process by automatically generating product metadata that is optimized for performance, allowing teams do more meaningful decision making tasks.

# Application: Image Quality

The quality of product images being uploaded on your platform is critical to how people perceive and purchase. VueTag's automated image quality moderation can ensure that images match the quality guidelines set by your platform without human intervention at scale.



**Background:**  
White

**Resolution:**  
High

**Borders:**  
NONE

**Usability:**  
PASS

## INPUT

Product Image URL(s)/ Product Image(s)  
Meta Description (if any)

## OUTPUT

Pass/Fail result based on whether the image has met the stipulated guidelines

## FEEDBACK

Vue.ai learns continuously with QA inputs

This includes image moderation, error detection, ensuring image type and quality etc is optimized for the ecommerce stores and other point of sale.

# Impact



## 90% Accuracy

Achieved for a leading reseller that sells high-end fashion products.



## 15% Improvement

In accuracy achieved through custom network training for a leading Italian retail brand



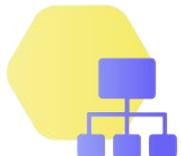
## 3M Products

tagged per month.  
across clientele



## 15M Tags

predicted per month  
across clientele



## 36 Categories

Supported by VueTag



## 300+ Attributes

Supported by VueTag

With VueTag, our clientele have seen improved product discovery, accuracy of catalog and improved productivity across teams. Get consistent, highly optimized product data powered by A.I. Automate the product tagging process for high performance fashion catalogs specifically for your business.



## Intelligent Retail Automation

*Process Automation & AI solutions for the Retail Industry*

Vue.ai is an end-to-end retail automation platform that is redesigning the future of retail with Artificial Intelligence. Using Image Recognition and Data Science - we extract catalog data, analyze it with user behavior and help your marketing, product and cataloging teams get actionable insights that improve customer experiences, drive conversions and reduce costs. We help you digitally map your products' DNA to create one-of-a-kind retail experiences for your customers and translate product information into the language that your teams can understand and make business decisions with.

## Making Retail Teams AI-Ready

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