

# Consolidate Orders and Take Control of Unstructured Email Data With Parsers

Learn how enterprise product teams can build high-quality inbox parsers to extract value from their users' email data and power use cases that deliver a standout user experience.

Andrew Slate | September 30, 2021

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Enterprise product teams are well aware that extracting value from unstructured email data is costly and challenging at scale.

Any developer can build a quick script to pull data from a handful of messages. But when you need to parse millions of emails across tens of thousands of merchants using hundreds of thousands of carriers? Building an in-house solution to account for all of the complexities of extracting high-quality email data would likely cost your engineering team significant time and resources that they don't have.

Still, data and insights from email are essential to delivering products and features that drive retention and meet ever-rising expectations for a seamless user experience. UX research firm Nielson found that fostering customer loyalty through a strong user experience yields tremendous benefits: [71%](#) of users who bypass search to go directly to a preferred site end up purchasing from that site.

E-commerce platforms are especially familiar with the challenge of reliably extracting email data for order chain consolidation (the process of unifying order and shipping data from disparate emails to offer buyers a single view of their order status).

In this post, we'll share how you can use inbox parsers to unify your order chain, tap into previously

inaccessible customer data, and deliver new features that maximize user experience. In turn, these features will make your platform stickier while driving retention and accelerating gross merchandise value growth through repurchases.

## Unlock More Value From Your Email Data

Third-party research, analyst reports, and other purchased datasets can paint a broad picture of your customers' behaviors. But the most valuable and real-time data lies inside the tool that your customers use every day to confirm order details, track shipments, and engage with your business: **their email.**

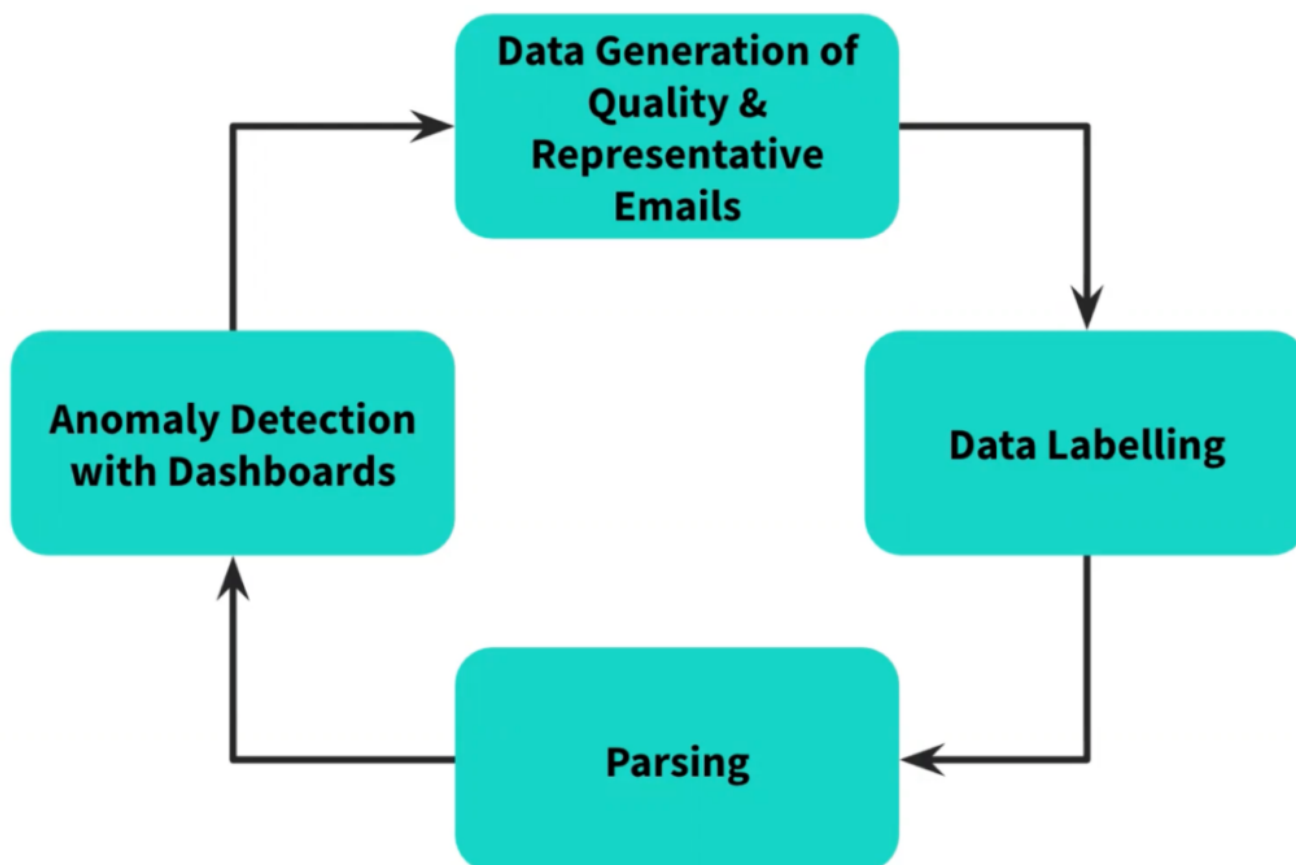
And the key to delivering a data-driven e-commerce experience, consolidating order chain information, and unlocking real-time customer insights is scalable, high-quality inbox parsing.

## But First: What Are Inbox Parsers and How Do They Add Value?

Simply put, an **inbox parser** is any software that cleanly pulls a piece of [unstructured data](#) (data that you can't easily read or store elsewhere) from an email. Parsers are often confused with data enrichment: the difference being that parsers deal strictly with data that lives inside an email, not external data.

Depending on the complexity and scale of your needs, a simple script or lightweight parsing tool may suffice. But for business-critical use cases that require parsing emails from different sources with unique formatting and at an exceptionally high level of accuracy, you'll need to train [machine learning models](#) so that your parsers can reliably identify and extract the right data.

To ensure your parsers operate at the highest possible quality, you'll want to train them using the following data flow:



*How to train your parsers to ensure reliably high-quality data*

- **Data Generation** - First, you'll need to create a high volume of real, representative invoice transactions.
- **Data Labelling** - Then, you'll rely on teams to annotate the emails you generated in step one to help your parser understand what data to look for.
- **Parsing** - Next, your parser will extract data from emails using logic informed by your data generation and labeling steps.
- **Anomaly Detection** - When data deviates from baselines, you'll want to engage in additional generation and labeling to ensure consistent accuracy. Ongoing anomaly detection lets you monitor your parser's health at the merchant and carrier level, detect significant deviations in real-time, and identify any significant market, merchant, and carrier trends.

## The Parsing Challenge: Email Data Access and Cost

Training accurate inbox parsers comes with its own set of unique challenges, too. Particularly, upfront costs and the availability of representative email data can be prohibitive to many product teams looking to deploy their own parsers.

Assembling the people, processes, and technology you'll need to train your parser requires a massive upfront investment. On average, a successful deployment **requires hundreds of thousands of emails and can cost between \$12-14 per email**. And over time, as email formats change and your existing data inevitably goes stale, you'll need to invest additional resources to ensure quality remains high.

Meanwhile, training machine learning models with representative email data is much easier said than done. Due to privacy concerns, e-commerce and software companies often can't use their own customer data to train their parsers.

Not to mention, some of the most popular merchants today put up barriers that make it much harder to access order history from emails, which can prevent the majority of your customers from enjoying features powered by parsing.

A robust inbox parsing solution can tap into a massive database of representative emails across tens of thousands of merchants worldwide, empowering you to deliver features that generate massive value for your business without overburdening your product team. Instead, your developers can focus on building out other critical features that help you crush the competition.

## How To Use Parsers To Deliver a Top-Tier User Experience

With parsers, you can extract the full value of your email data to power automated workflows for your end-users. Here are a few ways that enterprise product teams are using parsers to deliver seamless user experiences and capture previously inaccessible email data:

### Order Chain Consolidation

E-commerce and logistics firms often struggle to consolidate their order and shipping data in a single location. Order information, such as the order number, merchant name, order total, products, and currency typically lives within a merchant's systems. Meanwhile, shipping data, such as tracking numbers and links, remains siloed within the shipping vendor's systems. The result is a disjointed user experience where buyers can't access their order and shipping data in a single location.

Using high-quality parsers, you can automatically pull tracking numbers and links from shipping

confirmation emails and surface them inside your application. Now, your buyers won't have to dig up old, one-off emails from the shipping company and can instead rely on your portal as a one-stop-shop for order and shipping information. And with real-time insight into delivery status, your buyers will know where their packages are at all times, reducing the risk of theft and ensuring a positive experience.

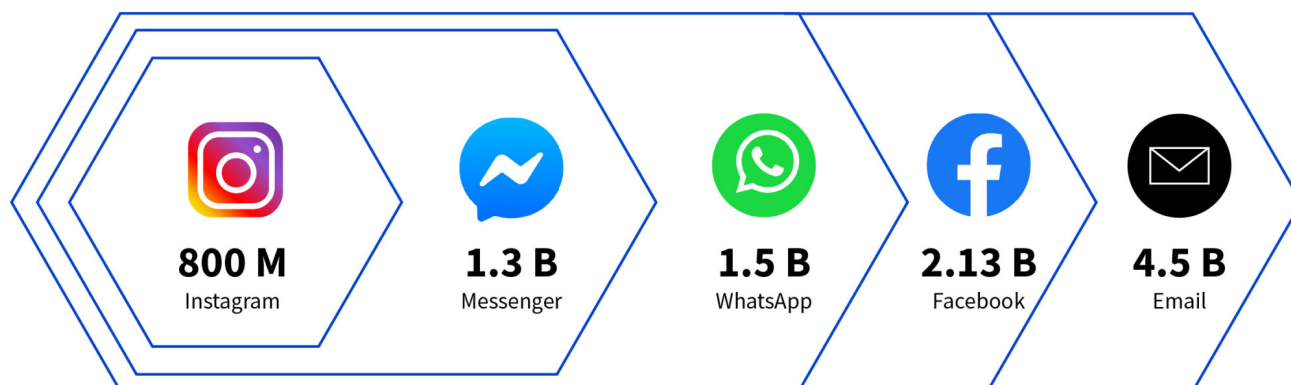
## Personalized E-commerce Experiences

In today's competitive e-commerce landscape, personalization can be a great way to stand out from other brands and drive customer loyalty. In fact, personalized experiences can increase purchases, repurchases, and order sizes by [16%](#).

Despite the clear benefits of personalization, many firms struggle to unsilo the data they need to reliably personalize offers and outreach at scale. Using parsers, your team can leverage customer data from emails in real-time to surface relevant products, offer custom promotions, and personalize email nurture campaigns based on customer behavior.

## Extracting User Data and Insights From Email

Email remains the number one channel your customers use to engage with your business—and usage is expected to grow by another [20%](#) by 2029. Whether your customers are managing support requests, receiving shipping confirmations, or prospecting new business, they rely on email to get their work done. Yet the process of [extracting valuable data](#) from emails can be incredibly resource-intensive.



Courtesy of

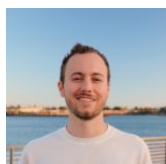
**recode**

*Email remains the number one communication network for your customers. Source: [Recode](#)*

Robust parsing solutions offer an efficient, scalable way to tap into data from emails. CRMs use parsers to pull unstructured lead data from emails and surface it in fields inside their platform. HealthTech applications can easily extract valuable data from sales emails to help their customers follow up with hot leads faster. Real estate applications can unify contact data in emails from interested homeowners inside their software.

## Takeaways

We're incredibly excited about the potential for inbox parsers to support rapidly scaling businesses in delivering a frictionless user experience. If you'd like to learn more about Nylas Inbox Parsers and if they'd be the right fit for your business, [sign up to speak with a platform expert today](#), or check out our other AI/ML offerings powered by the [Nylas Neural API](#).



### Andrew Slate

Andrew is a Product Marketing Specialist at Nylas who covers topics ranging from productivity APIs to data analytics. He's passionate about digital and film photography, camping, and backpacking.