

3 Reasons Enterprises Need Data Normalization



By E. Wallace

Data is one of the biggest assets enterprises have, but this valuable asset doesn't have the same precedent as other aspects of business. Businesses often don't know what to do with their data, treating it as something that can work itself out with some finagling from IT or worse, a static asset like cash reserves.

Data normalization is one critical step many enterprises are missing on the path to digital transformation. It's a vital part of ensuring that an organization can derive real value from both historical and real-time data sources. But what is normalization and why does it matter? Is it just reducing redundancy or is it something more? Here's what you need to know to get your foundations in place.

What is Data Normalization?

Data was never meant to be static. Real value comes from movement and flow into and out of departments that need it. Unfortunately, bad data can cost you dearly — to the tune of \$3.1 trillion a year for businesses in the United States (and that was back in 2016; eons in the world of data).

Normalization is a data management strategy designed to structure data in a series of normal forms. This is more than cleaning up duplicates or finding missing data. It's a full-scale process that ensures all your data looks and reads the same no matter the source, no matter the record.

Normalization is a customizable approach based on your organization's needs and the types of data in your asset base. Your "norms" will not look the same as other organizations. Just like you would never judge Japanese grammar based on English norms (hint: they have completely different structures), your normalization standards should not rely solely on some other organization's.

A significant part of normalization includes bringing all your data — yes, all of your data — into one single source of truth. If an enterprise is deploying a machine learning context, it transfers data of different scales into one common scale to preserve the integrity of any insights. Now, your data is ready to transform into valuable insight that your organization can leverage across all goals.

Why Enterprises Must Start with Normalization

There are three very good reasons you should engage in normalization. Simply removing duplicate entries is just one step; without the rest, you stifle insight and cap your data value before it begins to pay off.

1. Reduce Duplicate Data

Yes, we said getting rid of duplicates is just the first step, but here's the reality. Your IT team can't manually comb through all of your data, row by row, looking for duplicate entries. When you run a program to find duplicates, the machine can only get so far.

Normalization puts everything into a similar format, making it much clearer to machines what entries are actually the same. You'll root out these duplicates with more efficiency, and the final product will be much cleaner.

With quality data, you'll protect your brand, improve customer response times, and launch initiatives that provide greater value from less effort. As you scale — and with the way we're creating data now, you will need to — your process will scale alongside without ballooning into uncontrollable complexity.

2. Improve Segmentation

Your market segments rely on robust data. Normalization creates smaller tables of data, allowing your teams to customize search functions and get a clearer picture with more refined segments.

What could your enterprise do with better segmentation? You could focus your marketing efforts where they count by analyzing historical and real-time data from a geographical basis. You could offer customization based on individual customer criteria. You could pivot your efforts like a smaller, leaner operation would to reduce response times and improve your value offer.

Companies can improve overall customer lifetime value with precise segmentation, make decisions that emphasize continuous innovation while reducing dead product offers, and improve customer service with the right analytics.

\$3.1 trillion in 2016.

That figure deserves its own line. Bad data can cost enterprises dearly — 15-25% of revenue, according to MIT. Forgoing normalization could lead to missed profit opportunities, poor response outcomes, lost business from misunderstanding customer segments, and overall misguided decision-making at critical junctures.

3. Reduce Costs (and Risk)

Without normalization, a business could spend unnecessary revenue chasing phantom customers that are simply overlooked duplicate entries — these missteps are best-case scenarios. The alternative is much worse, falling afoul of GDPR by holding on to personal data longer than necessary thanks to out-of-control warehousing.

Normalization can also improve future data collection, inching businesses closer to real-time insights required to weather even global disruptions. Data only gets bigger. Handling normalization now will reduce costs for future bad data.

Building a Data-first Company

Capturing data and integrating legacy data into a dynamic insight machine requires normalization. There's no way around that. What enterprises need is an end-to-end data solution that does the work for you, providing a single source of data truth that looks and reads the same no matter the source. Stop wasting time struggling with poor data quality.

DataOS offers real-time preview of to-be ingested data, automatic data profiling, data transformation, built-in governance, and facilitation of secure data exchange. With an authentic data fabric, your enterprise can focus on the value of your data, not the complexity, and build new services within weeks. It's time to transform your data.