



# Guide to Data Assurance: Why Quality Assurance of Data Matters

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## Why Quality Assurance Matters

Companies invest significant time and effort to collect data from websites to make informed business decisions. Savvy marketers use data to drive automated marketing and optimization tools. Yet gaps or undetected flaws can quickly undermine confidence in the data and lead to poor results.

We created this Guide to Data Assurance to be a comprehensive resource for a best practice approach to quality assure website tags and the data you rely on.

Guide to Data Assurance

Why Quality Assurance Matters

Why Data Collection Is Harder Than It Looks

Mounting Challenges Call for New Approaches

How to Get Started

We live in the age of big data and analytics. It's a time when your company is probably collecting vast quantities of information about your customers so that you can better understand them and ultimately make smarter business decisions.

Being able to collect the right data can give you a considerable competitive advantage. That's because you can analyze that data to learn more about your prospects and customers and ultimately improve how you go to market. And it really works. In fact, according to McKinsey research, companies that make extensive use of customer analytics see a 126 percent profit improvement over their competitors.

Not surprisingly, a lot of data comes from the Internet. If all goes well, that data will not only be accurate, but also flow into a range of tools that underpin your reporting, help you derive important insights, facilitate personalization, and enable you to allocate your marketing spend more effectively.

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Unfortunately, however, things don't always go according to plan.

The reality is that data collection is a complex, brittle process that relies on lots of dependencies to work. If anything goes wrong, it can lead to an array of problems including but not limited to:

- Important data not being collected as a result of missing tags, tagging errors, or other complications.
- Only collecting part of the data that you need or, worse yet, data that's inaccurate.
- Collecting personally identifiable information that you shouldn't be, which can quickly lead to data privacy concerns for your customers.

- Data loss when you unwittingly hand over your data to third parties as a result of piggyback tagging.
- Inconsistencies and other issues, which require you to spend extra time cleaning the data before you can analyze it.

Any of these issues can lead to serious problems that cost significant amounts of time and money to fix. Imagine, for example, collecting inaccurate data without being aware of the fact. If you're using that data to inform business decisions, you'll make the wrong calls. As a result, you'll not only be at risk of allocating precious budget dollars to the wrong places, but also of hampering your overall chances for success as you go to market. For companies that rely on data to personalise their customer experiences or to determine how they spend marketing budgets, the cost of having poor data is particularly dire.

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## Why Data Collection Is Harder Than It Looks

While data collection may seem as easy as creating a few tags and waiting for the information to start pouring in, in reality it's a complicated process. Things can and do go wrong when executing the tags that makes data collection possible. Likewise when it comes to transmitting data across long stretches of network to an ever-growing list of different types of devices, each with its own quirks. That's especially true when those devices are running other apps in the background that can throw things off, making accurate data collection virtually impossible.

And it's not just that. There are three other big factors that are probably impeding your company's ability to collect accurate data:

- The ever-changing parts of the Internet you can control.

Websites change every day and yours is no exception. Every time

that you add new features and functionality or add, remove, or duplicate your tracking tags you risk disrupting your data collection. Even seemingly insignificant changes like launching a new campaign or publishing a piece of content can interfere with data collection with serious consequences for your business.

- The proliferation of analytics tools.

The number of analytics tools that look at the data that tags collect has grown considerably since they first arrived on the scene in the early 2000s. When tag management systems came into play several years later, they helped to bring order to the chaos that had ensued. But it was a double-edged sword. In addition to bringing order, they also paved the way for companies to deploy more tags more rapidly, often resulting in errors.

- The relentless need for speed.

With the ongoing adoption of Agile practices, development is happening much faster than ever before. Most companies have the same expectations when it comes to the speed and agility of their tag management. And while that's a challenge at face value, the good news is that just as developers have put an automatic testing framework in place to preserve the quality of their code, you can use automated testing to ensure accurate tag management. Importantly, however, that testing needs to happen on a regular and ongoing basis.

The bottom line is that change is a constant. As a result, your ability to consistently collect the accurate data you need to run your business may very well be in jeopardy.

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## Mounting Challenges Call for New Approaches

Many companies invest significant time and effort into figuring out their data measurement strategy and how it fits in with their overall business plans. They devote resources to understanding what metrics matter most to them and how they will capture those metrics. That work ultimately informs how they design a solution and implement an analytics tool.

Unfortunately, that effort can often go to waste if their data collection isn't working properly. As a result, they not only find themselves in a situation where the value of their investment is lost, but where they're also making bad business decisions. As we'll see later in this guide, given the evolving nature of things, these strategies need to be much more fluid so that they're able to keep up with the rapid pace of change.

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Of equal importance is the fact that companies need to pay much greater attention to the integrity of their data collection. The potential for flawed data is very real and can have significant implications for any business, resulting in poor decisions and a loss of data confidence.

Data assurance is the big challenge facing everyone in digital analytics right now. In the sections that follow, we'll take a closer look at data assurance and how you can use it to establish the checks and balances needed to ensure that your data collection runs smoothly and accurately.

### How Websites Capture Data

Any time that you access a website, your browser has to retrieve it from the server where it's hosted. While rendering the website in question, your browser also executes small bits of JavaScript code called tags that collect data about you and how you're engaging with that particular website. That data might include things like your location, gender, and age, as well as how much time you spent on the

site, whether you've visited it before, and what specifically you did while you were there. All of this data then gets sent on to data collection servers, where you can access it through whatever analytics tool you're using.

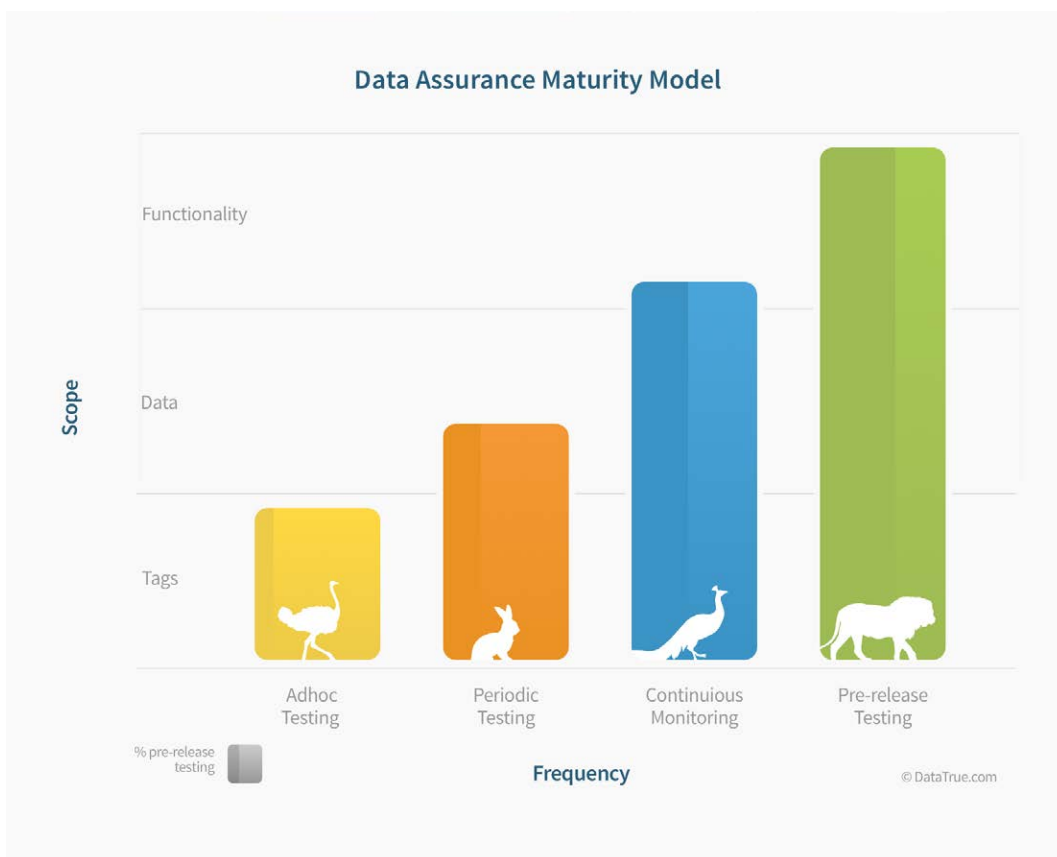
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[Quality Assurance: How to Get Started](#)

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# Guide to Data Assurance: How to Get Started

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## How to Get Started

1. Embrace Data Governance
2. Develop and Document a Data Collection Strategy
3. Foster a Culture Quality Assurance
4. Assess Your Risk Versus Return
5. Assess

As we saw in the previous section, not only is change constant, it also has serious implications when it comes to data collection. Every time that you

optimize your website with new functionality; add, remove, or duplicate your tracking tags; or even just upload new content or launch a new campaign, you're putting your ability to collect data at risk. These and many other factors can all conspire to create scenarios where you either aren't able to collect the data that you need or you're collecting flawed data — often without even realizing it.

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Your Existing  
Approach

As a result, data quality assurance is becoming incredibly important. Companies need to figure out what they can do to ensure that they continue to collect accurate information to fuel a variety of critical business decisions.

In this section, we'll look at five things that you can do to put yourself on the path to data assurance:

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## 1. Embrace Data Governance

Data governance is a way to reduce risk. At its most basic, it's a series of policies and procedures that dictates how organizations collect data and what they do with it to meet the growing demands of a variety of regulatory requirements. It's also a critical function for ensuring that budgets are allocated correctly and that organizations are well placed to do more with their data and thrive as a result.

Ideally, responsibility for data governance should lie with your chief data officer. The reality, however, is that many organizations don't yet have someone serving in that capacity. Instead responsibility for data either resides with IT or, increasingly, with marketing.

Whatever the case may be in your organization, it's important to get



executive level buy in for data governance so that it becomes part of your company's DNA. That means determining who in the organization should take responsibility for your data — a decision that typically hinges on how people use it. Part of your pitch for getting the right person to take responsibility for data governance should focus on helping them not only understand its importance for risk management, but also as a means of creating business value.

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## 2. Develop and Document a Data Collection Strategy

Effective data collection requires strategic planning to work well. The idea is to focus in on collecting the data that matters most to your business and that aligns to your company's strategic priorities. In other words, you don't just want to collect data for the sake of it, you want to hone in on data that's relevant, useful, and that has a purpose. That's important to help you not only achieve focus, but also to prevent you from having to carry the responsibility and cost of collecting, protecting and preparing data that you don't actually need.

Similarly, you want a plan so that you can ensure smooth implementation when you launch your analytics tool and so that you have a clear picture of how all of the data you're collecting fits together. Likewise, it's important for very practical considerations such as how your data is going to be named, formatted, and validated, which are critical when sharing data across different parties. In other words, it's not just about what you're collecting, but also how you collect it. Ultimately a good data collection strategy should help you to minimize the cost and effort required to ready your data for use.

Unfortunately, most organizations don't take the time to do this. They may start with a plan, but it's often siloed within one part of the business and not tied to the company's overarching business strategies. As a result,

such plans quickly go out of date and the companies that use them find themselves in trouble. Alternatively, they allow their strategy to become a static document, which simply doesn't work. A good data collection strategy has to be a living document that multiple people can access. It should allow for effective change management so that it's easy to track what changes are being made when.

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### 3. Foster a Culture of Quality Assurance

Most organizations realize the value of data and typically feel compelled to collect as much of it as they can so that they can do more things with it. The problem is that there's often too much blind faith placed in data — people tend to adopt a “set it and forget it” mentality — when in reality that data may very well be flawed. Unfortunately, many professionals make the mistake of making large budgetary decisions without actually giving their data the scrutiny that it requires. As a result, they wind up making bad decisions and misallocating their budget dollars.

For these and other reasons, it's important to create a culture that recognizes the importance of data integrity and that supports the notion of quality assurance over blind faith. For many people this represents a significant shift in mindset. That's not because of a lack of interest in the quality of their data, but rather because they thought it was too hard or that the cost of manual testing was too high.

To create a culture of quality assurance, companies need to start addressing any issues that arise with their data pre-emptively rather than after the fact. While that can be difficult to do manually on their own, with the right tools and support they can proactively validate their data and avoid a host of problems in the process.

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## 4. Assess Your Risk Versus Return

Data collection is constantly at risk as a result of ongoing changes and human error. It's important to be fully aware of what the risks are and what their implications might be for your business. For example, you need to know how much money your spending on your data-driven marketing efforts. After all, if your data is incomplete or inaccurate, that's all money that's potentially going out of the window. You should also factor in considerations around your brand and competitive position, both of which could be irreparably damaged if you discovered that you were accidentally sharing data that you shouldn't be. Unfortunately, that last issue comes up all too often thanks to piggyback tags.

Calculate the cost

<b>Impact</b>	<b>Direct Cost</b>	<b>Indirect Cost</b>	<b>X Time to detect error</b>
Misallocated marketing spend			
Poor user experience			
Misleading reporting			
Lack of data			
Damage to brand reputation			
Extra time required for data cleansing			
Data loss / incomplete data collection			

## 5. Assess Your Existing Approach

The final step is to evaluate your approach against our data assurance maturity model. This will help you understand how you stack up and identify whatever improvements may be necessary to bring your approach in line with industry best practice.

Consider the depth, frequency, and scope of your data assurance testing to identify whether your organisation is an optimist, a reactionary, a proactive or a leader in data assurance.

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### The Optimists

While optimists often have a positive outlook, in reality it's not well founded. That's because their testing is done manually, usually in association with a specific project, when their tags or the data they're collecting is being updated.

Unfortunately, not only is it a time-consuming process, errors can often be overlooked for long periods of time. Plus, taking this approach means that data gaps or flawed data can flow into their reporting, marketing, and optimization tools.

Although some detailed-oriented optimists may crawl their site from time to time to check tag coverage, most do not. Instead, they simply test once when they make changes, and hope for the best, with little if any regard to the many other factors that could impact their data. As a result, they're the least mature when it comes to quality assurance.



### The Reactionaries

Reactionaries are very similar to optimists. They're caught up in manual testing that's time consuming and only ensures that everything is working correctly at a single point in time.

Unlike optimists, however, they're prepared to do some more work when something goes wrong. Rather than testing, they are able to debug faults caused when updating site content or rolling out a new feature breaks the existing tracking.



### The Proactives

Proactives invest in automated tools to constantly monitor the presence of their tags and the data they have collected. They combine this with manual testing before each deployment. This proactive approach ensures that most errors are caught prior to reaching production and that the time they have to spend finding any errors in their live data is mercifully short.



### The Leaders

By far the most advanced, leaders represent best practice by going one step further. They regression test a library of detailed tests that check tags, data, data available and critical user journeys before every release of content, code, or tagging that may impact the website. Leaders want to ensure that only error-free data reaches their production tools and that everyone has the highest confidence in the data their businesses rely on.

#### What is Personally Identifiable Information?

Personally identifiable information (PII) is information that can be used on its own or with other information to identify, contact, or locate a single person, or to identify an individual in context.

## What is Piggyback Tagging?

Piggyback tagging is when the data you're collecting about your customers gets shared with other businesses without your knowledge or consent. It often happens behind the scenes when third parties put a tag on your site as part of a campaign that you're paying for, and then go on to share the data they collect with other third parties in their network. That in turn can lead to an array of issues, including a loss of public trust and the breaking of privacy laws.

### About DataTrue

DataTrue is an international leader in delivering enterprise-grade assurance for the tags that track website activity. Our deployment management, auditing, and proactive monitoring help our clients manage their tag operations and to validate the quality of the data they collect. This gives digital business leaders the high-quality information and confidence to make the right decisions.

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