

# UX Design for Embedded Analytics



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# 1 Introduction

**Application teams spend countless hours and thousands of dollars to perfect the user experience (UX) of their software products.**

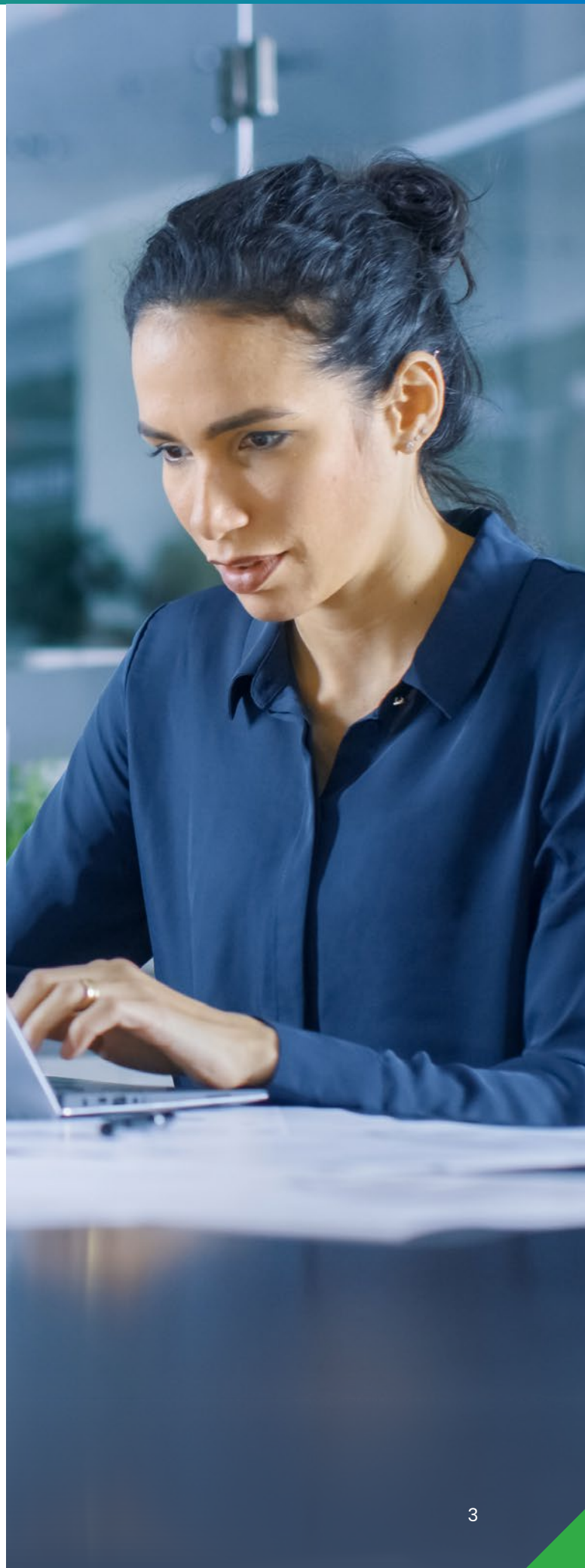
But when it comes time to update the embedded analytics in the application, they often rush through the design process to get new features out the door.

In reality, an application can live or die by the quality of its analytics experience. It doesn't matter if the rest of your product is perfectly designed. If your dashboards and reports have a disappointing UX, user adoption and customer satisfaction can plummet.

Embedding analytics means seamlessly integrating sophisticated dashboards and reports into your application in a way which presents analytics as part of the application's design, look and feel, and workflow. The ideal analytics experience is one where the dashboards appear as part of the native application.

## **This ebook outlines:**

- › The risks of a poor analytics experience
- › Three questions to assess your current UX
- › Five steps to improving your embedded analytics







## 2 The Risks of a Poor Embedded Analytics Experience

**First of all, what exactly is UX?** The user experience refers to the overall interaction a user has with your company, product, application, or service. It encompasses the user interface (UI)—which refers to how the application looks, including icons, fonts, colors, and more—but UX goes further to consider the product as a whole. What context is the user in? What problems are they trying to solve? What makes the product useful?

Countless product teams make the mistake of deprioritizing UX when it comes to embedded analytics. It's an easy trap to fall into: Initially, the consequences may be miniscule or even non-existent. "If your product solves a really

**"A bad UX over the long-term means more churn: people getting frustrated, leaving, and trying something else."**

Laura Klein, UX Expert & Author

serious problem, you can get by for a while with a less-than-great user experience," explains Laura Klein, author of "Build Better Products" and "UX for Lean Startups" as well as Principal at [Users Know](#).

But even revolutionary products can only succeed for so long. Ignoring a poor UX in your embedded analytics puts your organization at risk of:

### **Tarnishing Your Application:**

Even if the rest of your application is incredible, a poor analytics experience can leave users feeling like the entire product is off. When users don't enjoy the application experience, they have less appreciation for the application as a whole which is a negative driver for application adoption and usage.

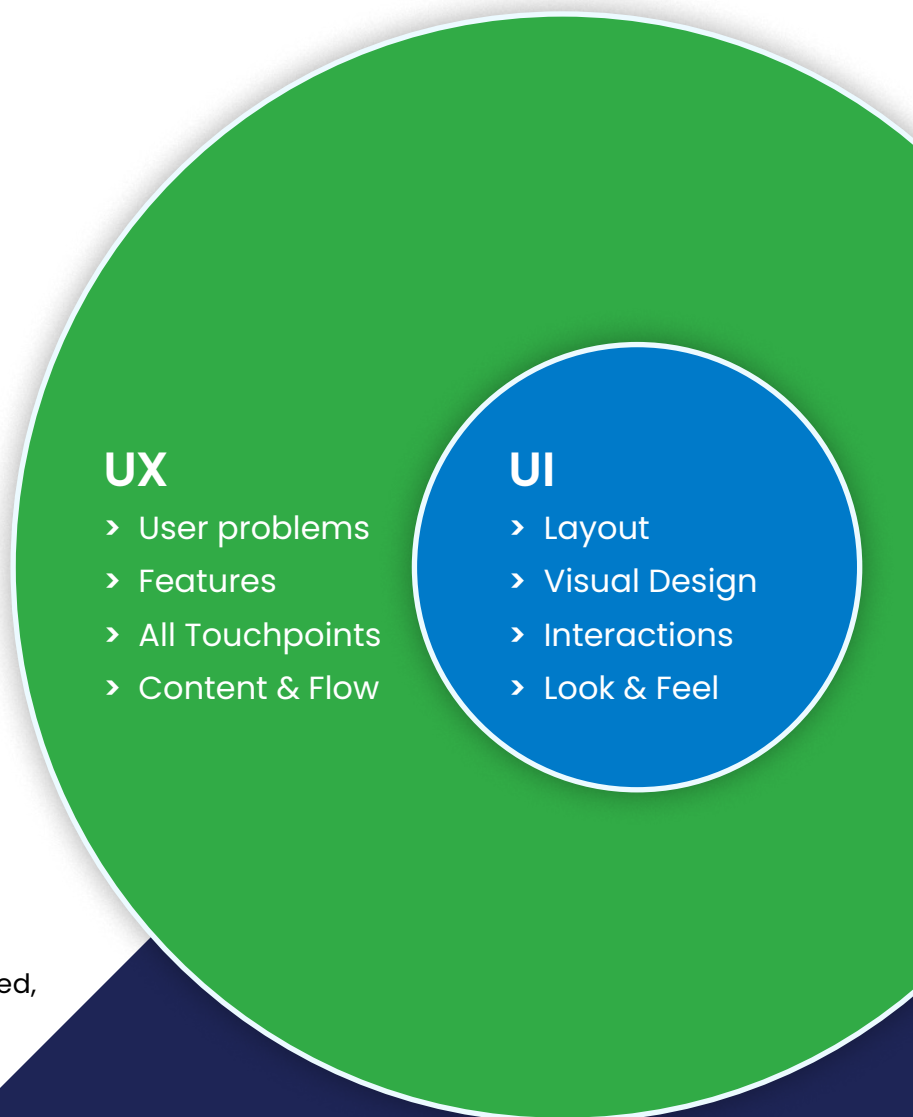
### **Plummeting User Adoption:**

For embedded analytics to succeed, it has to be used. Unfortunately, users will reject dashboards if they're not intuitive or fail to convey information clearly within the context of the native application. An effective analytics experience can be the difference between users embracing your product or ignoring it altogether.

### **Losing Ground to the Competition:**

Terrible analytics can turn a market leader into an also-ran. "People are expecting better and better user experiences. We're seeing this across the board," Klein explains. "If you have a terrible user experience—a product that is confusing or difficult to use—you may lose business when somebody else comes along and makes something that 'just works.' A bad UX over the long-term means more churn: people getting frustrated, leaving, and trying something else."

**UX is the complete experience a user has with your product. UI is the point at which the user is interacting directly with the product.**





## 3 Assessing Your Embedded Analytics

**“Too often, great data is obscured by a horrible presentation,” says Klein.** How does the UX of your application’s dashboards and reports measure up? Ask yourself these three questions to gauge where and how you can improve your analytics experience:

### 1. Do you have a deep understanding of your users?

A lack of understanding about what users need from their dashboards and reports is a challenge that plagues product teams. Many companies fill their analytics with data they think their users want, and never do the due diligence to find out what users actually need. It’s a seemingly obvious but often-missed point: Different end users want to use your application’s embedded analytics in different ways. It’s important to note that more sophisticated analytics are interactive and offer a tailored self-service experience to the end user which helps them ask questions of data and find their own answers.

### 2. Does your embedding stop at the visualizations?

Embedded analytics involves more than white-labeling some charts and graphs.

Application teams need to look at the complete experience—not just the visuals—to ensure end users can’t tell where your application ends and the embedded analytics begins. A truly seamless experience applications need to deliver more than just a chart or a graph, but rather a storytelling process that combines actionable analytics within the context of the host application and its workflows

### 3. Do the visualizations match your data?

Another common problem is choosing the wrong [data visualizations](#) to illustrate your datasets. Most visualizations are good for some types of data, but not every type. For example, a scatter chart works well to display two variables from a dataset, but it’s only useful when there is a number value on each axis; without that, it will appear to be a line chart without the line. Or consider the common pie chart, which is great for four or five values—but completely breaks down when sliced into dozens of sections. These are just two examples of how poor UI/UX can make information difficult for a user to understand.

## 4 6 Steps to Improve Your Analytics Experience

### Does your UX leave something to be desired?

Fortunately it's never too late to create an outstanding embedded analytics experience. Follow these steps before your next release to take your UX to the next level:

### 1. Form Your Personas

Creating a quality UX starts with understanding your end users. This takes more due diligence than many application teams realize, but since your target personas will serve as the foundation of your analytics, it's crucial to success. You must identify your end users before you can define your personas. Start with a trusted group of existing customers—or, if you don't have a product yet, tap into groups of prospective users in online communities.

Once you're familiar with your targeted users, break them down into personas. Each persona will be a percentage of your users who share common behaviors and activities. Start by looking at different company departments, teams, or people who share the same role. These may be your personas by default, but you might be surprised to find new groups when you look at the different ways people are using information.

### 2. Conduct Careful User Research

Continue laying the groundwork for an effective UI/UX by interviewing your personas. The only way to understand what your users

need from your embedded analytics is to ask the right questions. These persona interviews will form the basis of your analytics design.

#### Ask your users questions such as:

- What does an average day or week on the job look like for you?
- How do you currently use analytics and data in your work?
- What metrics do you monitor? How do you measure performance?
- In what situations will you be using embedded analytics in your application?
- How do you prefer to absorb information?
- What kinds of technical features are you comfortable using?

**"A true analytics offering should be in the hands of, at a minimum, the executive committee, all department heads, and any manager."**

Carl MACK, CEO of Intellimetrix





You should be prepared to tailor your product to suit a wide range of needs. Each of these individuals may have broadly different needs in terms of an embedded analytics solution.

Knowing your personas will help you decide what features and functionality will work for specific user segments. Armed with that knowledge, you can tailor the UX to these segments before a release, rather than having to make changes afterward. The goal should be to put yourself in your users' mindsets. You want users to be able to just 'get it,' and not have to think too hard about what they're seeing.

### **3. Consider What Data Your Users Need—Not Just What Data Is Available**

One of the most common errors product teams make when designing their analytics experience is presenting the wrong data, too much or too little data. This sometimes happens because application teams simply don't know what data users want. Even more

often, application teams default to presenting the data they already have on hand instead of finding out what data users need—regardless of whether it's currently available or not. Analytics created with relevant data that is in-line with the part of application presented to the user reduces complexity and leaves users with easily digestible insights.

"Imagine if you went to check a weather application, but instead of showing you the temperature, it only showed you the barometric pressure because that's all they were measuring," Klein explains. "Unless you are really into barometers, you probably won't use that product again. When you build anything that shows users data, you should always ask what will the user do with this information, and how will it change their behavior?"

The question about what data users need should be part of your user research. Find out early in the development process if you have that data on hand. If you don't, start working now to gather and present that information.



## 4. Incorporate UX Design From the Beginning

Traditionally, design has been kept separate from the development and engineering processes and incorporated only near the end of the software lifecycle. But waiting until then to think about the user experience leads to analytics that is disparate from the rest of the application, impractical to use, or simply confuses your end users. It also raises a ton of technical debt for the development team that will eventually need to be paid off with resources.

By gathering user requirements and incorporating UX early in the product cycle, development teams are more likely to build dashboards and data visualizations that seamlessly match the rest of the application and are intuitive for end users. An effective analytics design means users are much more likely to adopt the solution and enjoy using your application as a whole.

**“Waiting until the end of the software development lifecycle leads to analytics that is disjointed, impractical, or simply confusing.”**



90%

By 2023, **90% of business users** will interact with analytics at least once a day—but only 15% will realize it.

Nucleus Research



## 5. Address the Whole User Experience—Not Just the Visuals

“As the market for embedded analytics matures, analytics will be incorporated into solutions as part of an application’s structure under the covers,” writes Nucleus Research in a recent report, [Augmenting Intelligence with Embedded Analytics](#). Nucleus predicts that by 2023, 90 percent of business users will interact with analytics at least once a day, but only 15 percent will realize it. That’s because the entire application experience—everything the user sees, including the embedded analytics—will not only look consistent but also work together seamlessly. Users will receive information where they need it, when they need it and in the context of the application. Their normal interactions with your application will extend into the embedded dashboards and reports without interrupting their workflows.

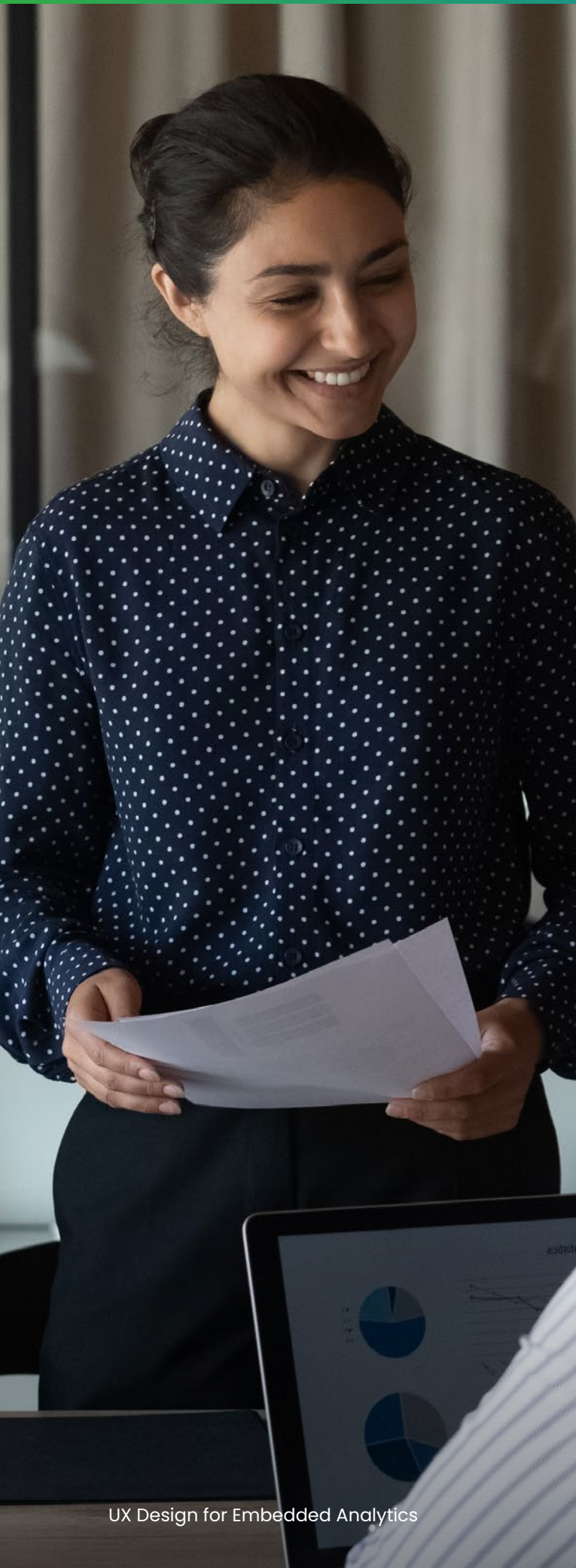
## 6. Look for an Analytics Solution That Puts You in Control

Delivering an analytics experience that’s both intuitive and impressive is no small feat. Many application teams turn to embedded analytics platforms

to help them deliver cutting-edge dashboards and reports faster than they could build themselves. For developers, it is critical to have ultimate control over the application experience, including the embedded analytics.

This ensure they can customize not only the look and feel, but extend through APIs and even tailor the level of analytics self-service for end-users.

Some analytics platforms restrict what application teams can build and what the end product looks like. If you’re in the market for an embedded analytics platform, look for one that gives you control to make your vision a reality. The ability to customize and white-label your analytics is essential to keeping users engaged and setting your application apart from the competition.



## 5 Key Takeaways

**As you update the UX of your application's embedded analytics, remember these key points:**

- Even a revolutionary application will only get away with a poor analytics experience for so long. Act now to improve your UX before it's too late.
- Understanding your end users is critical to successful embedded analytics. Take care to build your personas so they serve as the foundation of your UX design.
- Don't assume what your users want. Take the time to research how users will use your application, so you can build and embed analytics with them in mind.
- Don't stop the embedded journey at data visualizations. Integrate the analytics into your users' workflows by letting them take action from the analytics, write-back to the database, and collaborate and share insights in context.
- Incorporate UX design early in your development process. Putting the design process off will result in a mismatched, unintuitive analytics experience.

**Learn about the different solutions for embedded dashboards and reports. Read the ebook: [4 Approaches to Data Analytics for Your Application](#).**



# Logi Embedded Analytics: Purpose-Built for Software Teams

Product teams need intuitive analytics and data visualization capabilities in their applications, purpose-built for every users' unique role and skills. Logi's embedded analytics solutions, by insightsoftware, empower you to design and deploy analytics into the fabric of your organization and products. These analytics integrate with your existing workflows and security models providing a seamless experience where anyone can analyze data, share insights, and make informed decisions.

Learn more at [insightsoftware.com/logi-analytics/](https://insightsoftware.com/logi-analytics/)

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