
Data-Informed Product Design

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by Pamela Pavliscak

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Does Design Need Data?

The world is one Big Data problem.

—Andrew McAfee

Imagine that you are designing a new product or reinventing one that already exists. You have a great idea, a great team, and enough money to get it done. Every step of the way, there are decisions that will have an impact on the design.

There are strategic decisions about who will use the product, how it will fit into these peoples' lives, or why they would start using your product at all. There also are tactical decisions about what language speaks to the people using the product, what catches their attention in a positive way, and how to make the experience easier.

There are bottom-line business questions that are critical to the survival of your company, too. Will the people you've identified actually use your product? Will they keep using it? Will they recommend it? And these questions, too, are intimately connected to the design. Design *is* how people will experience your site, app, or device. This is why **design is driving more and more businesses.**

Do you trust your gut or do you trust the data? Trusting your gut is appealing; after all, you believe in your idea for a good reason. Thanks to Malcolm Gladwell's *Blink* (Back Bay Books), we know that many of our smartest decisions rely on intuition. And, we know that Steve Jobs famously (and perhaps mythically) eschewed research and certainly did not consult data for every design decision.

When it comes to design, using data can seem like overkill. We think of *Marissa Mayer testing 41 shades of blue at Google* back in the day. Even with the success of Tinder, it seems jarring to hear the founder say, “Data beats emotions.” It seems like we have so much data that we can easily find ourselves in a state of analysis paralysis.

Yet, we know that data can reveal new insights. As Christian Rudder writes in *Dataclysm: Who We Are* (Crown), “It’s like looking at Earth from space; you lose the detail, but you get to see something familiar in a totally new way.” Data yields a new perspective. When data is used in the right way, it can reveal to us new things about people, and people are at the core of designing any product.

The choice is not really data *or* intuition, but data *and* intuition. Then, the question becomes something else altogether. Which data? How do we balance data with design practices? And whose data should we use anyway? These questions are the crux of what this report addresses.

So far, there are plenty of great books on how to derive consumer insights from data (*Data-ism* by Eric Lohr [Harper Business] or *Data Smart* by John W. Foreman [Wiley]) and even more books on using user experience (UX) research to inform design (*It’s Our Research* by Tomer Sharon [Morgan Kaufmann], *Just Enough Research* by Erika Hall [A Book Apart], *Don’t Make Me Think* by Steve Krug [New Riders]), but there is not much information on how to bring it all together to design products and services.

This report derives from my experience building a company that uses data to help design better experiences. Our constant goal is to discover something we didn’t know before, and often this happens when we learn something new about how people fit technology into their everyday lives. As you might guess, there isn’t one right way to design with data. There isn’t a perfect process. But along the way, we’ve learned a lot about how to bring it all together. We’re not alone. All over the world, teams are learning how to integrate data of all kinds into their design practices.

Here, we will look at how to bring together the aerial view provided by Big Data with the ground-level insights from studies. First, we will examine the types of data product teams have about the UX. Then, we will look at case studies showing three ways data can come together to inform product design. Finally, we will look at a process for pulling all the data together in the organization.