

Measuring What Matters: How to Pick a Good Metric

We all know metrics are important. They help report progress and guide decision-making. Used properly, metrics can provide key insights into businesses that make the difference between success and failure. But as our capacity to track everything increases, and the tools to do so become easier and more prevalent, the question remains: what is a worthwhile metric to track?

Before you can really figure that out it's important to understand the basics of metrics. There are in fact good numbers and bad numbers. There are numbers that don't help and numbers that might save the day.

First, here's how we define analytics:

Analytics is the measurement of movement towards business goals.

The two key concepts are *movement* and *business goals*. Analytics isn't about reporting for the sake of reporting, it's about tracking progress. And not just aimless progress, but progress towards something you're trying to accomplish. If you don't know where you're going, metrics aren't going to be particularly helpful.

With that definition in mind, here's how we define a "good metric".

A good metric is:

- **Comparative**
- **Understandable**
- **A ratio or rate**
- **Behaviour changing**

A good metric is comparative. Being able to compare a metric across time periods, groups of users, or competitors helps understand which way things are moving. For example, *'increased conversion by 10% from last week'* is more meaningful than *'we're at 2% conversion'*. Using comparative metrics speaks clearly to our definition of *movement towards business goals*.

A good metric is understandable. Take the numbers you're tracking now - the ones you think are the most important - and show those to outsiders. If they don't instantly understand your business and what you're trying to do, then the numbers you're tracking are probably too complex. And internally, if people

can't remember the numbers you're focused on and discuss them effectively, it becomes much harder to turn a change in the data into a change in the culture.

A good metric is a ratio or a rate. Ratios and rates are inherently comparative. For example, if you compare a daily metric to the same metric over a month, you'll see whether you're looking at a sudden spike or a long-term trend. Ratios and rates (unlike absolute numbers) give you a more realistic "health check" for your business and as a result they're easier to act on. This speaks to our definition above about *business goals* - ratios and rates help you understand if you're heading towards those goals or away from them.



A good metric changes the way you behave. This is by far the most important criterion for a metric: what will you do differently based on changes in the number? If you don't know, it's a bad metric. This doesn't mean you don't track it - we generally suggest that you track everything but only focus on one thing at a time because you never know when a metric you're tracking becomes useful. But when looking at the key numbers you're focused on today, ask yourself if you really know what you'd

do if those numbers go up, down or stay the same. If you don't, put those metrics aside and look for better ones to track.

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Choosing the right metric

Now that we've defined a "good" metric let's look at five things you should keep in mind when choosing the right metrics to track:

- Qualitative versus quantitative metrics
- Vanity versus actionable metrics
- Exploratory versus reporting metrics
- Leading versus lagging metrics
- Correlated versus causal metrics

1. Qualitative versus quantitative metrics

Quantitative data is easy to understand. It's the numbers we track and measure - for example, sports scores and movie ratings. As soon as something is ranked,

counted, or put on a scale, it's quantified. Quantitative data is nice and scientific, and you can aggregate it, extrapolate it, and put it into a spreadsheet. Quantitative data doesn't lie, although it can certainly be misinterpreted.

Qualitative data is messy, subjective, and imprecise. It's the stuff of interviews and debates. It's hard to quantify. You can't measure qualitative data easily. If quantitative data answers "what" and "how much," qualitative data answers "why." Collecting good qualitative data takes preparation. You need to ask specific questions without leading or skewing answers. You have to avoid letting your enthusiasm and reality distortion rub off on your interview subjects. Unprepared interviews yield misleading or meaningless results.

2. Vanity versus actionable metrics

If you have a piece of data that can't be acted upon (you don't know how movement in the metric will change your behaviour) then it's a *vanity metric* and you should ignore it.

It is important to note that *actionable metrics* don't automatically hold the answers. They're not magic. They give you an indication that something fundamental and important is going on, and identify areas where you should focus, but they don't provide the answers. Actionable metrics are often the starting point for this type of exploration and problem solving.

3. Exploratory versus reporting metrics

Reporting metrics are straightforward - they report on what's going on in the business. We think of these as "accounting metrics", for example, "How many widgets did we sell today?" Or, "Did the green or the red widget sell more?"

Exploratory metrics are those you go looking for. You're sifting through data looking for threads of information that are worth pursuing. You're exploring in order to generate ideas to experiment on.

4. Leading versus lagging metrics

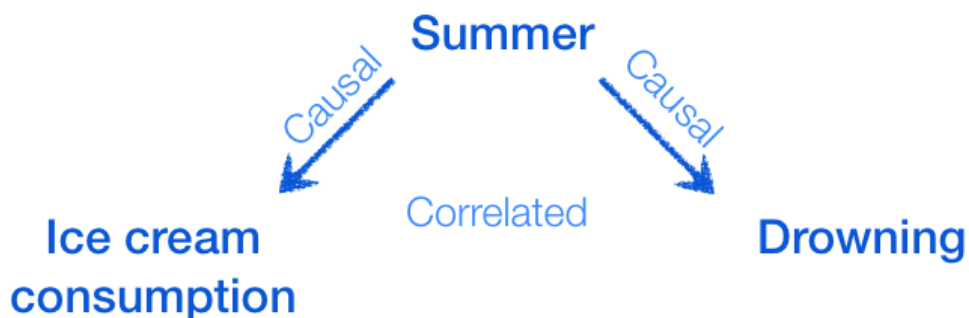
A *lagging metric* is reporting the past; by the time you know what the number is, whatever you're tracking has already happened. A great example of this is churn. Churn tells you what percentage of customers abandon your service over time. But once a customer has churned out they're not likely to come back. Measuring churn is important, and if it's too high, you'll absolutely want to address the issue and try to fix your leaky bucket, but it lags behind reality.

A *leading metric* on the other hand tries to predict the future. It gives you an indication of what is likely to happen, and as a result you can address a leading

metric more quickly to try and change outcomes going forward. For example, customer complaints are often a leading indicator of churn. If customer complaints are going up, you can expect that customers will abandon and churn will also go up. But instead of responding to something that's already happened, you can dive into customer complaints immediately, figure out what's going on, resolve the issues and hopefully minimize the future impact in churn.

5. Correlated versus causal metrics

A **correlation** is a seeming relationship between two metrics that change together, but are often changing as a result of something else. Take ice cream consumption and drowning. If you plotted these over a year, you'd see that they're correlated - they both go up and down at the same time. The more ice cream that's consumed, the more people drown. But no one would suggest that we reduce ice cream consumption as a way of preventing drowning deaths. That's because the numbers are correlated, and not causal. One isn't affecting the other. The factor that affects them both is actually the time of year - when it's summer, people eat more ice cream and they also drown more.



Finding a correlation between two metrics is a good thing. Correlations can help you predict what will happen. But finding the cause of something means you can change it. Usually, causations aren't simple one-to-one relationships - there's lots of factors at play, but even a degree of causality is valuable.

And remember: **analytics is about measuring progress towards goals**. It's not about endless reports. It's not about numbers that go constantly "up and to the right" to impress the press, investors or anyone else. Good analytics is about speeding up and making better decisions, and developing key insights that become cornerstones of a business.

Adapted from onstartups.com

(<http://onstartups.com/tabid/3339/bid/96738/Measuring-What-Matters-How-To-Pick-A-Good-Metric.aspx>)