UPTIME MAGAZINE

uptime®

dec/jan 15

for maintenance reliability and asset management professionals

DECEMBER/JANUARY 2015

Adapting to Being a Better Leader

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Metrics *vs* KPIs:

Lessons from "Alice in Wonderland"

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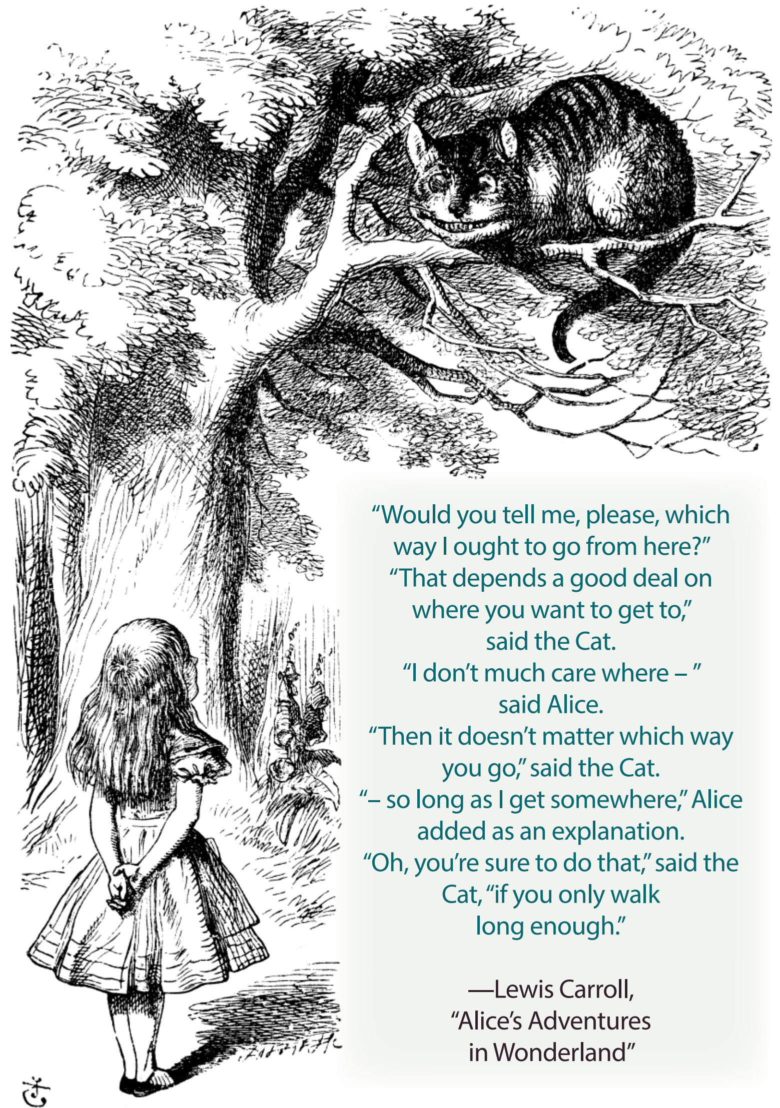

"Would you tell me, please, which way I ought to go from here?"
"That depends a good deal on where you want to get to," said the Cat.
"I don't much care where – " said Alice.
"Then it doesn't matter which way you go," said the Cat.
"– so long as I get somewhere," Alice added as an explanation.
"Oh, you're sure to do that," said the Cat, "if you only walk long enough."

—Lewis Carroll, "Alice's Adventures in Wonderland"

We can learn wonderful lessons from the clever literary characters Lewis Carroll created. The exchange between Alice and the Cheshire Cat illustrates the need for purpose and context in the decision-making process. We often face pivotal decisions at work, but without empirical insight, we're left aimlessly chasing white rabbits.

The terms metric and key performance indicator (KPI) have been overused to the point where they've lost much of their differentiation and are often used interchangeably. In an environment where we have access to an unprecedented breadth of data, we can easily feel overwhelmed in knowing where to focus. It's important to understand, however, that just because we have the ability to measure something does not mean it will inherently provide value.

A metric is simply a data point. Without context, this number does not communicate whether we are doing well or underachieving and therefore, whether or not we should act. A KPI, on the other hand, applies strategic context to a metric to deliver meaningful information from which fact-based decisions can be made.

When viewing a metric, we immediately try to determine if the number is good or bad. Should the number be higher or lower? Sometimes the answer is not that straightforward. Take the monthly critical spares growth metric as an example. It is a measure of the month-over-month relative growth of value for inventory identified as critical spares for a given storeroom. Generally speaking, the value should be close to zero and remain highly stable. But under some circumstances, a higher number is not only expected, but desired. In other cases, current initiatives and operations should deliver a number less than zero. So, how do we define whether this is a metric or a KPI? Perhaps the best way to define a KPI is by deconstructing its three elements: key, performance and indicator.

Key

Organizations are unique and each matures at its own pace, so it is expected that each organization would focus on goals specific to its environment. In that vein, a metric must be ***key*** to the organization. Not all metrics can be key. There must be a clear understanding why this number is important, why the established targets and thresholds should be met, and the consequences of not meeting the targets and thresholds. At executive levels within an organization, these can be straightforward measures, like revenue, earnings, margins, etc. At lower levels, however, it is more difficult to correlate measures with strategic objectives.

> "…it's no use going back to yesterday, because I was a different person then," said Alice.
>
> —Lewis Carroll, "Alice's Adventures in Wonderland"

In the previous metric example, what's the impact of high monthly critical spare growth? The root cause may be that warehouse managers are circumventing stocking policies by labeling more items as critical, or there is truly a strategic necessity to invest additional resources in critical spares. If growth is tied to a specific strategy, what is the goal the strategy is intended to support and how does that correlate with higher level measures, such as earnings? We should strive to define measures that support lower level, operational improvement, while retaining relevance at the enterprise level.

KPIs inherently have a lifecycle. As organizations mature, they must reevaluate what they're measuring, how and why. Some organizational objectives are finite, so it doesn't make sense to manage all KPIs perpetually. But even KPIs tied to perennial objectives must be reviewed periodically for relevance and accuracy. In other words, does it make sense to continue measuring performance in this area and is the current calculation still valid? As Alice points out, we're different than we were yesterday. We shouldn't continue to measure our performance with the same metrics we've always used.

In order for a metric to be a KPI, it must provide a means to measure and impact ***performance***. To accomplish this, there are two key factors necessary to associate with the metric: a goal and a time frame. This can manifest itself as a target and date (e.g., lower monthly critical spare growth to .5% by the end of July) or a threshold and date range (e.g., maintain monthly critical spare growth between -0.5% and 0.5% for the summer months). With a goal and time frame, an organization can determine if it is underperforming and can react appropriately. Better yet, the organization can proactively implement initiatives and monitor its progress in pursuit of the goal.

Applying trends to metrics provides meaningful, directional context and can potentially highlight correlations to initiatives (e.g., the number has risen consistently over the last 12 months, the summer months are always 15% higher, etc.). But looking in the rearview mirror is not a stand-alone strategy for driving continuous performance.

Indicator

> "'and what is the use of a book,' thought Alice 'without pictures or conversation?'"
>
> —Lewis Carroll, "Alice's Adventures in Wonderland"

Finally, in order for a metric to be a KPI, it must be an ***indicator***. Alice understands that being *shown* something provides much greater context. The metric must be aligned with the business by having a consistent and agreed to definition that indicates the state or level of a process. A measure, such as monthly critical spares growth, does not mean much unless we know how critical spares are defined; and means even less if that definition is not consistently applied across the enterprise. It's that consistency that fosters confidence in the results. Without confidence in the data, one can never expect to achieve pervasive user adoption.

> "Now, HERE, you see, it takes all the running YOU can do, to keep in the same place. If you want to get somewhere else, you must run at least twice as fast as that!" said the Red Queen
>
> —Lewis Carroll, "Alice Through the Looking Glass"

Performance

The Red Queen understands that we can't expect to improve if we continue to operate status quo. A KPI must serve as a catalyst for action to improve the business through three primary channels:

1. Validation of business objectives by visualizing performance that directly supports specific goals.
2. Exposure of process risks by actively comparing planned versus actual performance.
3. Identification of coaching opportunities by detecting and alerting the right people of non-conformance events or trends.

Perhaps most importantly, an indicator must communicate some degree of insight. Simple record counts are the starting point for many organizations, but in reality, they convey very little. Ratios, durations, effort and costs provide much greater insight and potentially allow for pragmatic comparisons between different parts of the organization.

Indicators generally fall into one of three categories:

1. Capacity Indicators, which measure throughput or generation of deliverables for the organization, such as units produced.
2. Process Indicators, which can trend organizational maturity in areas, such as safety or process adoption rates.
3. Outcome Indicators, which measure the end result, such as increased revenue, decreased costs, or improved customer satisfaction.

Understanding the category of the indicator can help define the visualization components and techniques needed to best convey the desired message.

Conclusion

It's not uncommon for an organization to fear openness and transparency, but we can all learn from the March Hare's advice. KPIs, unlike metrics, must clearly identify where we want to go, when we expect to get there and how we are currently performing, all while providing actionable opportunities along the way to ensure we reach our destination.

Metrics are indeed the central components of KPIs. Even if they are not worthy enough to be a KPI, they still provide intrinsic value when leveraged appropriately. Metrics can be used to both establish baselines and identify opportunities for improvement. Through leveraging a structured performance management methodology, a metric can evolve into a KPI when:

- It clearly ***indicates*** progress (or lack thereof), accomplishment, a problem area, an opportunity, or something meaningful.
- The relationship of the measure to ***key*** objectives is identified.
- A target or threshold is identified and the actions and planned reactions necessary to drive ***performance*** are established.

If an organization is not based on a culture of fact-based conclusions, decisions will continue to be derived from a gut feeling. But rather than focusing on hitting the numbers, metrics should genuinely reflect the business processes themselves. Organizations should leverage KPIs from the top to the bottom of the decision-making hierarchy, replicating successes throughout the organization.

References:

1. Carroll, Lewis. *Alice's Adventures in Wonderland*. United Kingdom: Macmillan, 1865.
2. Carroll, Lewis. *Through the Looking Glass*. United Kingdom: Macmillan, 1871.

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