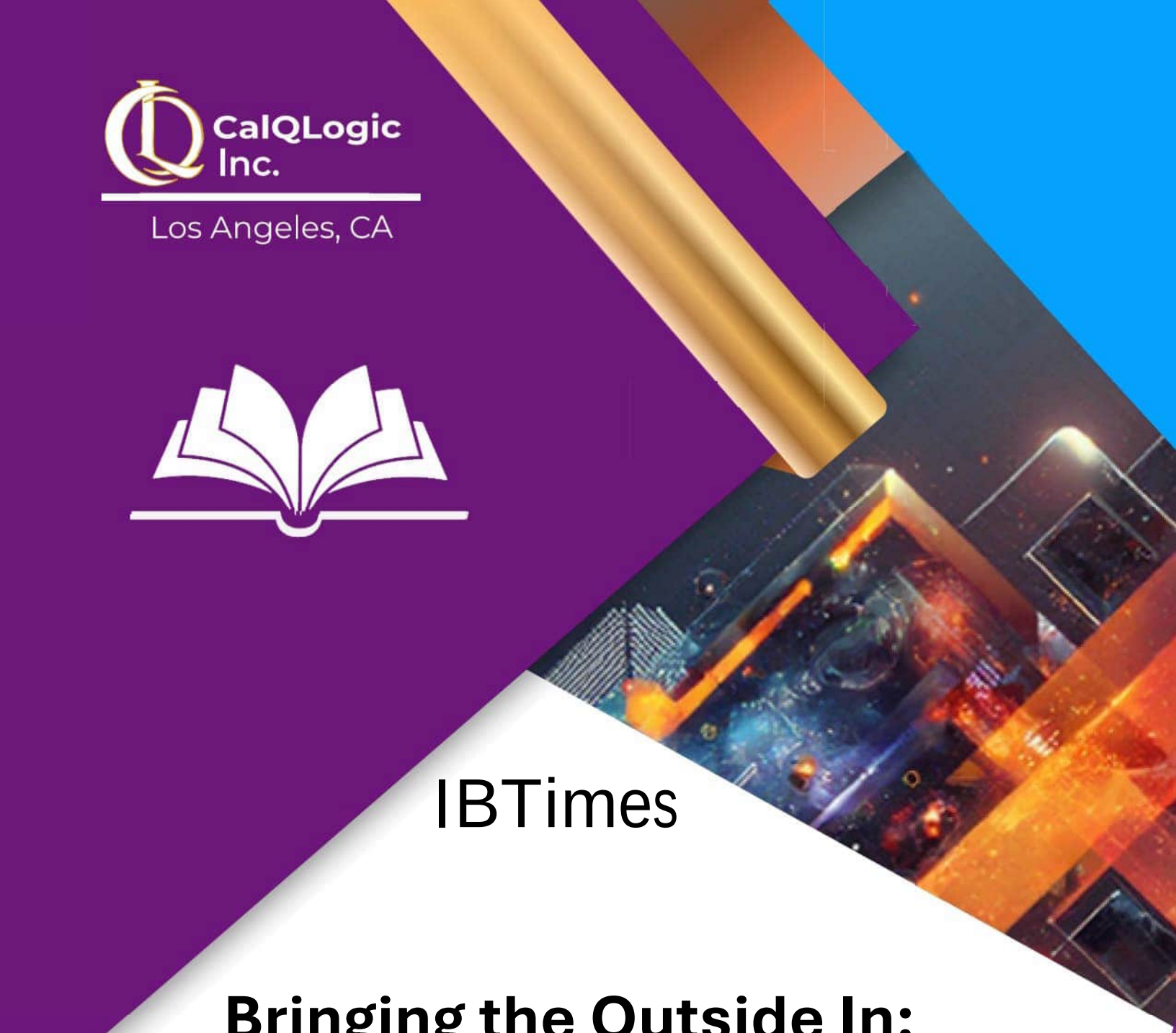
CalQLogic Inc.

Los Angeles, CA



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Bringing the Outside In:

The Case for Real-Time Analytics in the Modern Enterprise

Bringing the Outside In: The Case for Real-Time Analytics in the Modern Enterprise

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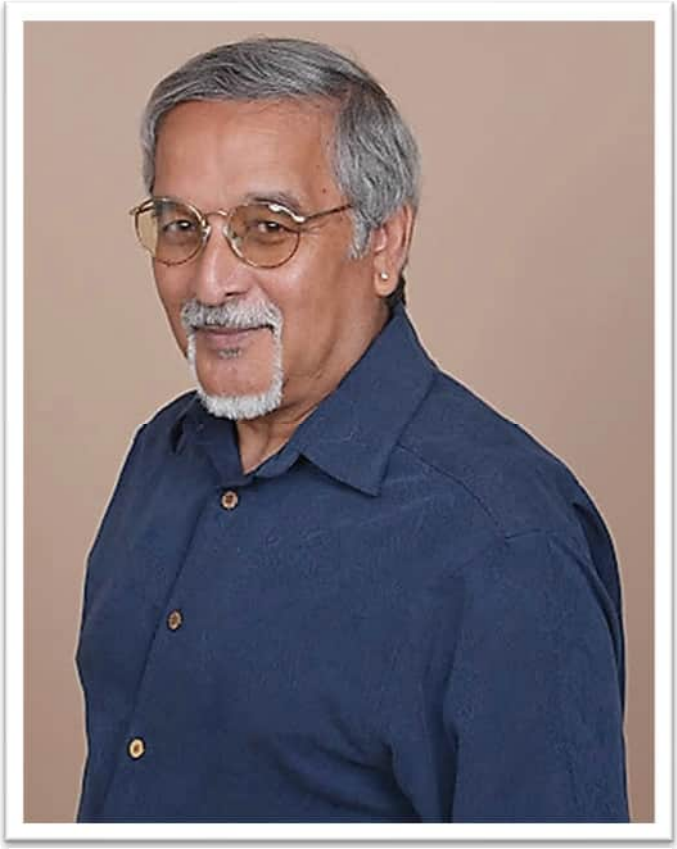
The data environment of today presents a paradox. Businesses are inundated with vast data, from Internet of Things (IoT) sensors and customer behavior logs to global news feeds and social media chatter. At the same time, much of this data is inaccessible or irrelevant at the moment it's needed. The evident technological progress doesn't mask the struggle organizations face with outdated data pipelines, siloed systems, and manual processes that leave them blind to real-time developments.

Deborah A. Taylor, founder and CEO at CalQLogic

Deborah A. Taylor, founder and CEO, and Dr. Swamy Narayanaswamy, CTO and Principal at CalQLogic, have observed these patterns over the years. Taylor, a veteran in data analytics, notes a gap between how quickly businesses need information and how slowly their systems can deliver it. "In so many places, companies are laser-focused on integrating internal enterprise data. They don't realize that competitive advantage comes from understanding the external environment and not what they already know," she explains. This represents the unseen threat—critical data gaps where businesses aren't just failing to capture vital information (let alone analyze it in real-time), but where the adage 'what you don't know can't hurt you' is dangerously inverted. These blind spots, left unmonitored, become vulnerabilities: the very risks you can't see are the ones most likely to harm you.

Taylor states that what many businesses call "real-time" is usually a misnomer. Retrieving data quickly isn't enough. The data must be current and sourced from all relevant environments, especially beyond the enterprise firewall. "You can deliver results in milliseconds, but if your data is a week old, you're not making real-time decisions. You're just simulating speed with stale data that leads to insights," she says.



Dr. Swamy Narayanaswamy, CTO and Principal at CalQLogic

The reasons for this problem are structural. Integrating real-time data (particularly from external sources like social media, public records, and third-party APIs) is expensive and complex. How so? Each source requires a custom integration effort. The problem is the data is typically unstructured or inconsistently formatted.

These integrations usually need a small army of programmers writing, maintaining, and rewriting code every time business questions change. It's worth noting, however, that this kind of hands-on development approach is inherently error-prone and inefficient. Every time a human touches code, there's a risk of bugs, delays, and misinterpretations. "Even the best engineers make mistakes," says Dr. Narayanaswamy. "The real cost is all the human capital you tie up doing low-level grunt work just to stay current."

These limitations of conventional analytics infrastructures prompted Taylor to establish CalQLogic with a vision to create a new paradigm for real-time decision-making. What does this entail? Making the outside world available to internal users, with no need for many coders or endless technical overhead.

"Our goal is to make accessing external data as easy as querying a database table," says Dr. Narayanaswamy. In other words, CalQLogic aims to shift from "closed world" analytics, where all data must be warehoused internally, to "open world" analytics, which treats external and internal data sources as first-class citizens. This is the vision that TriggerWare®, CalQLogic's proprietary decision engine, embodies.

The need for real-time analytics can be better understood by looking at its impact on decision accuracy and business agility. Data delayed by minutes or hours can introduce blind spots. A delay of seconds can mean millions lost or gained in high-stakes environments like financial markets. Taylor points out that large enterprises might absorb these costs, but smaller organizations often can't afford that luxury.

Taylor believes that real-time analytics is already redefining industries. In pharmaceuticals, real-time monitoring is enabling faster and more proactive pharmacovigilance. Pharma companies can detect early warning signs about their drugs by scanning social media, forums, and datasets instead of waiting months for official adverse event reports.

Meanwhile, in sales, the ability to react to customer sentiment and behavior at the moment provides an edge. Real-time analytics helps sales teams identify hot leads, recognize shifting customer interests, and tailor pitches dynamically. The supply chain offers another compelling case. Global events like natural disasters and currency fluctuations can impact sourcing decisions instantly. Companies that monitor these variables in real-time can adjust strategies on the fly, avoiding delays and shortages.

Deborah A. Taylor stresses that the rise of real-time analytics is a logical progression in the digital evolution. The next step is toward integrating the pulse of the outside world into everyday decision-making, just as businesses once moved from ledgers to spreadsheets and from on-premises systems to cloud platforms.
