

BY NICOLE FORSGREN

DevOps Delivers

In many organizations across all industries, the core value of the business is now being delivered through software. For decades, software was carefully planned and then developed and delivered in lockstep processes (called phase gate or waterfall) that mirrored other disciplines such as architecture: planning, followed by design, then development, which was then handed off to testing and QA, and finally to operations for maintenance. This carefully orchestrated process with predefined deliverables and several strict hand-offs worked well enough for a time but did not allow for flexibility, changing requirements, or—most importantly—an increasingly competitive landscape that demanded speed in the way we deliver software that allows us to respond to customer demands and security threats.

DevOps is a software development and delivery methodology that provides exactly this: increased speed and stability while delivering value to organizations

and customers. (See the *State of DevOps Reports* for an overview of the performance gains possible by adopting DevOps principles; <https://devops-research.com/research.html>). The methodology has come of age in the past several years, and organizations are adopting key DevOps practices—which include technology practices, processes that draw from the lean and agile movements, and culture—to transform their software practices. DevOps practices allow the organizations that adopt them to leverage software so they can delight their customers, beat their competitors to market, pivot quickly when needed, respond to compliance and regulatory changes, and address security threats.

This section presents three articles that cover important aspects of DevOps. We begin with Jez Humble, author of *Continuous Delivery*, *Lean Enterprise*, and *The DevOps Handbook*, and coauthor of the forthcoming *Accelerate: The Science Behind DevOps*, discusses common objections to continuous delivery and why *all* organizations can and should be developing and delivering their software following patterns he helped pioneer a decade ago.

Bridget Kromhout, principal cloud developer advocate at Microsoft and expert in containers and Linux, shares the importance of culture in your technology transformation, and explains why containers will not solve all of your problems.

Mik Kersten, cofounder of Tasktop, teams up with me, cofounder of DORA (DevOps Research and Assessment) to present the types of data that teams must capture and collect to be sure their software development and delivery is effective, let alone successful.

We hope you find this work of great value.

Nicole Forsgren is co-founder of DORA (DevOps Research and Assessment) and coauthor of the forthcoming book *Accelerate: The Science Behind DevOps*.

