

10 DevOps Trends to watch in 2020 by Eveline Oehrlich, Research Director Research In Action

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In 2019, we saw numerous examples of successful DevOps initiatives across large and small enterprises – congratulations to all of you who were involved in one. But what can we expect for the future of DevOps 2020? As thought leaders in the DevOps community, we believe the following ten trends will shape the next year of DevOps across the globe.

1) Agile and DevOps will increase collaboration between technology and business functions

Agile and DevOps are grassroots movements that started within technology. In many cases, however, Agile and DevOps have not been able to break out of technology. On the other hand, Agile has been adopted in other functions including finance, human resources and procurement, and marketing. Some senior leaders are increasingly inviting their whole organizations to “become agile.”

However, this doesn’t seem to have helped the technology community join forces with their colleagues in these other functions. Because of the competitive pressure digital is putting on organizations, we will start to see more collaboration across functions with agile as the conversation starter.

To speed this up, encourage your teams to talk to people from different functions about their experience using agile methods. Questions that can help break the ice include: How are you doing agile? What are you doing? What is changing for you? What issues are you having? How could we work together to help to address some of these issues? These questions will help people from different functions get to know each other – as people – and collaboration will improve.

2) Training, learning, and improving DevOps skills will become an organizational priority

DevOps requires trying out new technologies. Recent research from the DevOps Institute found that 55 percent of survey respondents [prefer to hire into their DevOps teams from within](#) their organization. Unfortunately, many companies don’t have the necessary skills to do this and hiring new people might not be possible due to budget restraints.

One approach is to create internal training universities. This is what the courier delivery services firm FedEx did. The company knew it did not have adequate skills in its talent pool of engineers, leading their CIO to initiate the FedEx Cloud Dojo, which teaches its own engineers modern software development and technologies and functions as a university for FedEx. The university has reskilled more than 2,500 software programmers.

Organizations that want to use DevOps to help advance their digital transformations must make drastic improvements in training, learning, and improving skills that are essential to DevOps. We expect to see more proactive pursuit of this in 2020.

3) Upskilling and cross-skilling will lead to the rise of the T-shaped professional

Recognizing the strained talent market, organizations and individuals will invest heavily in upskilling and cross-skilling in order to meet accelerating demands for new skills. While all IT professionals will need to become more cross-domain competent, developers in particular will have to add new breadth to their skills portfolio in areas such as testing, containerization, infrastructure, AI, and security.

There will also be a stronger emphasis on core (soft) skills such as empathy, customer experience, and collaboration. Silos are starting to come down in many areas, and the need for everyone to become T-shaped, with depth and breadth of knowledge will become necessary to enable and support innovation. All of this training and new collaboration (see No. 1 above) will lead to more workers developing new technical and professional skills and personal qualities, adding new depth and capabilities to the individuals on your teams.

4) More teams will shift mindsets from a “job done” to “value realized”

Value Stream Mapping can help change the way your teams think about the Definition of Done (DoD) from being “I did my job” to “the value is realized.” It is one of the most effective ways of changing behaviors and getting your teams to think about the end-to-end lifecycle of what they’re working on. This is why the adoption of Value Stream Management is critical in 2020. It will enable you to automate the outputs from Value Stream Mapping for ongoing progress monitoring. This lets a team connect all parts of the ever-complex DevOps toolchains with system-derived data based on cycle time. Teams that adopt Value Stream Management in 2020 will be able to base their next improvement experiments on data-driven decisions and prioritizations.

5) Tool fatigue will worsen before it gets better

The number of tools and frameworks in technology are daunting. The challenges IT teams face to understand, interconnect, and apply much of these will continue, and in 2020, there is no real resolution in sight.

The competition in the DevOps tool chain is fierce and flourishing. Events and conferences are filled with technology and best practice sessions. Books, blogs, and videos are flooding email inboxes, with thought leaders are eager to share their expertise. Additionally, more open source tools are emerging to integrate new technologies.

To survive the challenges of complexity, it’s becoming increasingly important to have an automation strategy. As you work to develop this, don’t lose sight of the actual problems you are trying to solve and how you can get there by leveraging your own teams.

6) DevOps will become more measurable and metrics will become better defined

“What gets measured gets managed.” This quote is still valid, more than 60 years after Peter Drucker referenced it in his book, “The practice of management.” What we all want to avoid, however, is the syndrome of measuring for metrics sake.

For the next few years of DevOps, the continuous improvement metrics we know today will continue to be the key metrics that matter. In 2020, we expect more organizations will agree on what to measure and adopt these metrics. Those looking for support can lean on the performance metrics outlined in research from DevOps Research and Assessment (DORA), which [cites five measures of Software Delivery and Operational Performance](#) (SDO) that can be used as leading indicators of success for high-performing DevOps teams. Key benchmarks within the report provide guidance on areas teams must improve in 2020. Selecting these key metrics and populating them with data will provide insights into the value and journey of DevOps.

7) DevOps teams will earn more and experience increased job satisfaction

For employees who continue to proceed down the DevOps path in 2020, there will be benefits which will go directly towards their wallet and job satisfaction. Automation will allow employees to work on more value-adding work instead of mundane manual tasks, resulting in improved job satisfaction and hopefully [reduced stress levels](#).

In particular, DevOps engineers that see their work in automating and collaborating for improved software delivery can expect their salary to be significantly higher than peers in traditional roles, such as system administrators. Investments in training and certifications will also positively reflect on the quality of code and therefore may improve the business results. This, in turn, might finally change the value equation within organizations and give IT a true strategic seat at the table. It will certainly improve how other functional areas work with IT now and in the future.

8) There just might be Service Management and DevOps reunification

With the recent release of ITILv4, 2020 will be an interesting year for organizations that have been adopting DevOps and [service management frameworks](#). The development and management of software products needs agile techniques, with a focus on value co-creation in a way that reduces waste. DevOps, service management, and other best practices like SRE can coexist to align teams, meet stakeholder demands, and improve the value delivered. Because digital transformation is not achieved instantly across an organization, established companies should begin with best practices and methodologies that are suited to their needs by starting small – then learn, build expertise, and scale up.

9) A new generation of IT members are taking over

The number of people who remember the days before DevOps is starting to shrink. The younger generation on today's IT and DevOps teams don't remember the strict silos, where there were clear lines around areas of responsibility such as infrastructure, operations, application design, development, testing and security. They don't remember how this caused a lot of transition work between teams and groups. They don't know that product owners, business analysts, architects, developers, testers, release managers, system administrators and infrastructure owners had to agree and coordinate on the planning, development, testing, deploying, operating and management of a piece of software. Just typing that sentence was exhausting, imagine living it. When we celebrated the 10-year anniversary of DevOps in 2019, we saw the wall removed between Dev and Ops. This is a reason for all of us to celebrate.

10) Artificial Intelligence adoption will rise, and DevOps teams should check it out.

AI and Machine Learning (ML) were recently rated as the most important enterprise technology of the next decade, according to [a recent report from ISACA](#). Both will play a critical role in next-generation IT operations and DevOps teams. AIOps will give DevOps teams the ability to analyze more data faster, allowing them to improve key processes, tasks, and decision making. In 2020, expect to see more DevOps teams adopting these tools, which automate the ingestion of fast volumes of data, use ML to analyze the data, and have the ability to leverage knowledge for automation or decision making. The AIOps market has already gained momentum, [with 22 percent of IT enterprises](#) using ML and data sciences as part of their work. The vendor landscape is broad with a variety of leaders. This year, the AIOps market will continue its shift from a science project to the pilot and experimental stage.

A lot of work remains in 2020 to aid in the future of DevOps adoption. It will require more than focusing on tools and techniques. DevOps initiatives must be registered as change programs, requiring a time, resource, and priority commitment from all business leaders. We're hopeful that some of these trends will be realized this year, and that DevOps will be recognized as a new way of working.