

Point of View

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empowering ideas



New ways of working to deliver digital at scale

Four scenarios to explore how
new ways of working can help
scale digital initiatives

Written by Neil Moorcroft



As Director of Zuhlke's Digital Solution Centre, I lead a team of digital consultants and engineers that have helped businesses, both large and small, generate business value from digital technology. By integrating CX and User Research into our Agile development practices, we are able take advantage of the latest advances in technology to build exciting new products and services that deliver meaningful customer experiences for our clients.

Neil Moorcroft, Director of Digital Solutions



Portfolio & Product Management



API & Microservice Architecture



Agile Delivery Organisation



Digital Cloud Platforms and DevOps

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Introduction

Digital transformation has been high on boardroom agendas for some years now, but at many companies, business leaders have sorely underestimated the root-and-branch changes required in order to deliver digital at scale.

Build cultures that foster change

Whether they realise it or not, the pace of modern digital delivery requires their employees to unlearn old ways of working and to make radical changes to processes, organisational structures and even corporate culture.

Without these changes, digital transformation initiatives look doomed to disappoint. As far back as 2015, the MIT Sloan Management Review and Deloitte jointly warned business leaders that companies failing to transform digitally generally fell short of their expectations because they “didn’t change mindsets and processes or build cultures that fostered change.”

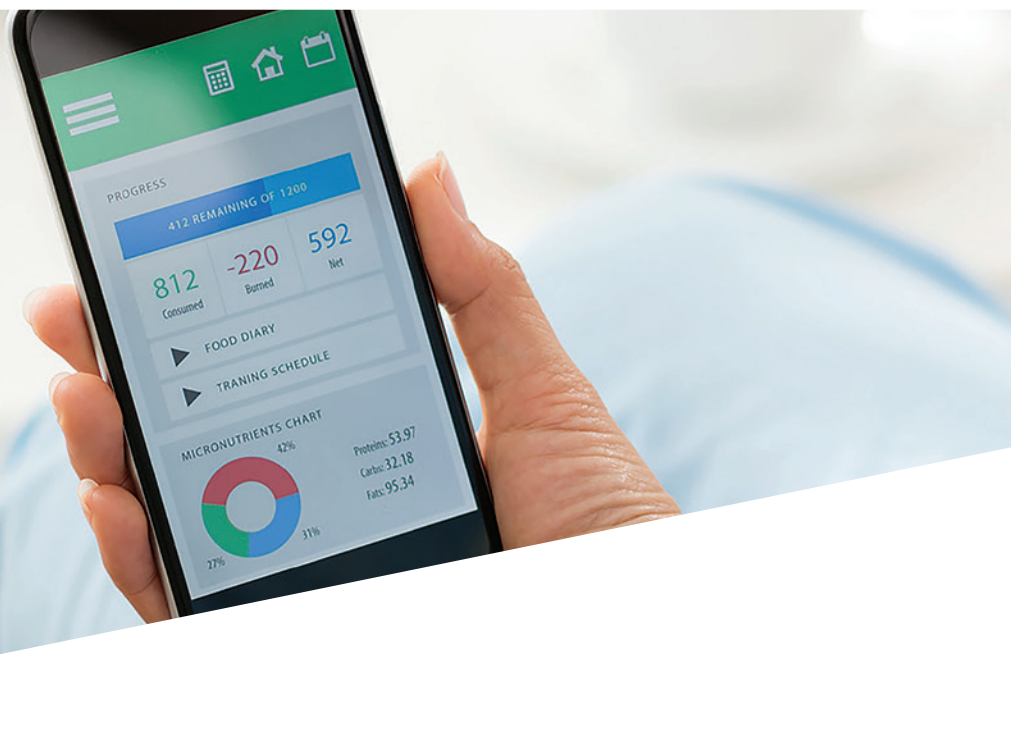
On this point, it’s clear that organisations that aspire to emulate the kinds of digital success exemplified by the Ubers and AirBnBs of this world also need to emulate the ways those companies think and work, too. As a recent article in the Harvard Business Review points out, “Silicon Valley start-ups are known for their agile decision-making, rapid prototyping and flat structures. The process of digital transformation is inherently uncertain: changes need to be made provisionally and then adjusted; decisions need to be made quickly; and groups from all over the organisation need to get involved.”

Adopt new ways of working

In short, many businesses are finding that, in this new age, older, entrenched processes and hierarchies simply get in the way, hampering the progress of digital transformation. At Zuhlke, our Digital at Scale solution is focused on helping organisations that have already made some progress on their digital transformation journeys to build strong foundations which enable development teams to deliver new, innovative digital products at speed and at scale. A particular focus here is working side-by-side with these organisations, helping them make the process, organisational and cultural changes needed to build internal development capabilities fit and ready for efficient delivery.

In this white paper, we will consider four hypothetical scenarios as the basis for an exploration of how new ways of working can help to scale digital initiatives. At every organisation, robust digital delivery at scale requires a convergence of product, engineering and working practices, but how this is achieved can differ quite significantly from organisation to organisation, depending on specific needs. In other words, one organisation may require greater focus on technical changes, with only minimal adjustment to ways of working, while at another, the reverse may be true.

Scenario 01



A large multinational organisation needs to deliver a mobile app that will meet the needs and expectations of a diverse global customer base.

Challenge

In this example, it would not be uncommon to find several hundred engineers working across multiple teams and development centres worldwide, in order to build and deliver multiple mobile applications, each tailored to fit a local audience. These developers might potentially share services and application programming interfaces (APIs) with colleagues from other teams and development centres, but collectively, the process would be very disjointed, work would be duplicated and valuable opportunities to achieve economies of scale would be lost.

Response

Here, we might suggest a 'software product line' approach; this involves creating a shared set of software assets, held centrally under the governance of a core engineering team, and assembled into apps using common means of production. It's an approach borrowed from the manufacturing industry, where a TV set or a car, for example, might be based on a standardised motherboard or chassis, and assembled from a library of pre-approved components. In a digital delivery context, the core engineering team develops reusable software components on this common platform for every team to use worldwide, so there's a huge amount of reuse. Less time is wasted, and digital products get to market quicker.

When new features and services are built locally to address local needs, these are handed back to the core team, so that they can be analysed, made more generic and then shared with others worldwide. This type of federated engineering set-up can enable global teams to achieve huge scale quickly, but at the same time, it grants local teams a 'license to operate', empowering them to make their own decisions and operate independently, but with a degree of governance and oversight.

Scenario 02

A long-established, traditional business needs to deliver new digital products and services to market quickly to stay relevant.

Challenge

It must communicate a coherent vision of what it aspires to achieve with digital, so that development teams can build and deliver products in line with management expectations. Traditional siloes need to be overcome, so that digital teams can establish a smoother flow of work and releases. This is a very common scenario; without a coherent vision in place, and new methods of project management and resource balancing to match it, development teams can be working in the dark, continuously impeded, unsure of where their priorities should lie.

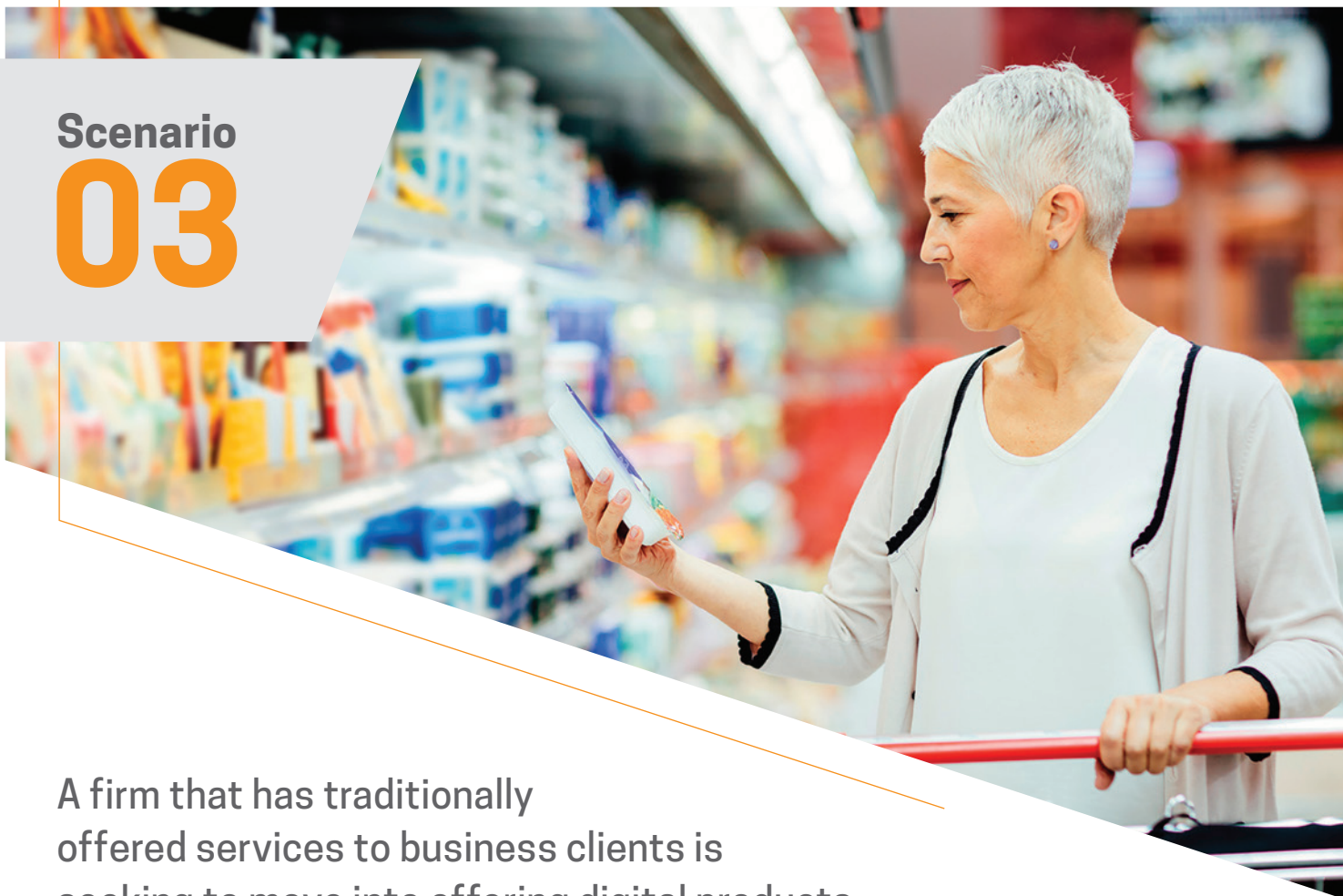
Response

The challenge here is two-fold: to establish cross-functional teams that also work according to a clear digital product roadmap. Each cross-functional team brings together all the design and engineering skills needed to build, deliver and support all aspects of a digital product and ensure it evolves over time. The product roadmap, meanwhile, gets cross-functional teams all moving in the same direction, so that the organisation becomes a more outcome-oriented 'team of teams'.

The overall goal here is fewer teams with more comprehensive capabilities, putting an end to the constant shuffle of personnel between teams, and a steady flow of work for them based on a solid portfolio management approach. Rather than rigid adherence to a particular Agile process, an organisation like this is more likely to benefit from trialling different best practices and sharing with each other what worked and what didn't. In this way, pockets of resistance to change can be overcome, as employees become more willing to adopt approaches that have already proved successful for their colleagues elsewhere.



Scenario 03



A firm that has traditionally offered services to business clients is seeking to move into offering digital products on a software-as-a-service (SaaS) basis.

Challenge

This business has already identified that public cloud infrastructure offers the most affordable, scalable way to achieve its ambitions - but it will need to take the fairly generic services offered by a cloud provider and rely on its own engineering skills to create a customised platform for offering digital products to its client base.

Response

What a business in this situation will need is tooling that enables in-house development teams to become self-sufficient in building, deploying and adapting digital products to match customer feedback and evolving needs. The digital platform they create might include, for example, tooling for automated build, deployment, centralised access management, log aggregation and monitoring. Together, the right set of tools will enable teams to achieve self-sufficiency, while simultaneously granting their organisation the appropriate level of governance and handing off basic infrastructure management tasks to the cloud provider. Ultimately, these tools will allow cross-functional teams to operate independently and build value for the organisation - but using them effectively will require new ways of working.

Scenario 04

A large public-sector organisation is looking to deliver improved digital services to millions of citizens and to streamline transactions.

Challenge

The digital services will be built upon a large legacy estate. Integrating with legacy is challenging and prevents rapid innovation of new products.

Response

Here, an approach based on 'domain-driven design' might work best. This is a software approach that relies on the definition and management of loosely-coupled software components that isolate specific functions or business capabilities and allows them to be combined with other components in order to fulfil design intentions. Since these components need to constantly interact with one another, and with other systems, the business function they encapsulate will need to be exposed as APIs that are well-defined, easy to discover and easy to consume. Together, reusable components and APIs enable small teams or squads to build services independently of each other, while minimising rework. This, in turn, ensures a more continual release process, as new services and functions are incrementally put into production.

Conclusion

Across a wide range of organisations, Zuhlke's Digital at Scale solution is helping to achieve the step-change in process that digital transformation demands, so that they can scale and sustain their digital services. Without these changes, digital teams can't hope to keep pace with business needs and customer expectations. They will soon find themselves facing an out-of-control backlog and struggling to determine where their priorities should lie. The problem is not with the developers themselves, nor their skills, nor their products. They simply reflect the problems of sticking to old ways of working in a digital age that needs everyone to move faster.

Instead, the focus needs to be on getting value from digital transformation, by tearing down the barriers that keep business and IT functions siloed and fostering a spirit of deeper collaboration between the two. Only when the business as a whole is focused on both developing and delivering compelling digital experiences can it truly realise this value.



About Us

Zühlke is one of the leading innovation partners for digital transformation. We operate along the entire innovation process – from ideation and prototyping through to implementation and maintenance. Our company combines business and technology competences in a unique way drawing on our strengths in innovation and project management, medical start-up financing, software and product engineering.

Zühlke can count on the experience gained in over 10,000 software and product development projects and serves customers across a wide range of industries – from life sciences and telecommunications to financial services.

To learn more...

www.zuhlke.com/gb/en/solutions/digital-scale



Zühlke Engineering Ltd
80 Great Eastern St.
London EC2A 3JL
Tel: +44 20 7113 5000
Email: info@zuhlke.com

