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Reimagine

The Future of Quality Assurance



CHALLENGES AND ARTIFICIAL INTELLIGENCE

CUSTOMER EXPERIENCE

AUTOMATION

TESTING AND QA STRATEGIES OF THE FUTURE

WAYS OF WORKING

WAYS OF WORKING

WAYS OF WORKING

In collaboration with:
TRICENTIS | DELPHIX | Neotys

Endorsements



Phil Fersht
Founder & CEO, HFS Research
"Insightful work from Capgemini and its partners. A must-read for ambitious executives seeking to break out of legacy practices."



Tanya Whiteing
CIO, George Weston Foods Limited
"A comprehensive report covering diverse and insightful experiences across multi faceted businesses. Whilst there is no clear path on how to move forward with quality assurance, it is clear that the more we share, the more organisations can evolve in era of digitalisation."



Jeremias Rößler
Founder & CEO, PeTez
"Illustrative compilation of practical insights into current best practices and future trends of QA within many industries. Highly recommended read."



Conor Norris
Head of Testing, Allianz Australia Insurance
"An invaluable insight into emerging trends in test practices and methodologies. A must read for all Australian IT managers."



Srini Raman
Head of Test Management, Link Group
"Insightful views on how industry is evolving in quality engineering and assurance space."



Dipak Sahoo
Regional Head of IT - Asia, Generali Asia
"A good report and a timely reminder for executives to make QA a key part of their development plan particularly when businesses are striving hard to meet the demands of digital transformation and corresponding challenges associated with it."



Moshe Milman
Co-Founder and COO, Applitools
"Great report providing a thorough overview of all the latest trends in the testing space. It is nice to see the focus around AI, Digital Experience and Visual Testing as emerging trends. Highly recommended read!"



Niranjn Prabhu
Chief Information Officer & Director, Australian Catholic University
"A comprehensive compilation of reports from various sectors covering recent trends, and the impact of different technologies and services on QA to address the new challenges for providing a better customer experience."



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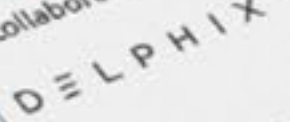
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Delphi

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Reimagine The Future of Quality Assurance

Featuring the trends shaping the future of quality assurance, and a practitioners' view of how QA can reinvent customer experiences for competitive advantage.

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Foreword

The rules of the game have changed. An array of advanced technologies – from artificial intelligence to the internet of things – are reinventing how organisations create value.

In this age of agility and increasingly higher customer expectations, organisations are expected to deliver seamless connected experiences at speed. Many CEOs are leading the charge of their digital transformation and scaling digital change more sustainably, all to put customer value first.

Recent government regulations and new competitors are disrupting industries and organisations are under unrelenting pressure to create value. To respond more quickly to business demands, organisations need to adopt emerging technology faster and to lay a strong enterprise data foundation. The focus on agile, the leverage of new technologies and quality assurance is imperative to respond more quickly to business demands.

This shift has already initiated changes in the way teams deliver and QA must become agile and deliver valuable services in this new era of application development. Speed is the name of the game now and modern organisations must adapt within an ever-changing environment. This requires continuous innovation in products, services, practices, and most importantly to build the skills of teams for today's digital age.

With QA moving up in the agile value chain, this may well involve both a mindset and a cultural shift. Consider where the stumbling blocks may be – as it all comes down to having the right mix of people, tools, culture, and practices. This publication provides a practitioners' view on how some of the leading organisations are reimaging the future of quality assurance - sharing their perspectives, lessons learned and the way forward.

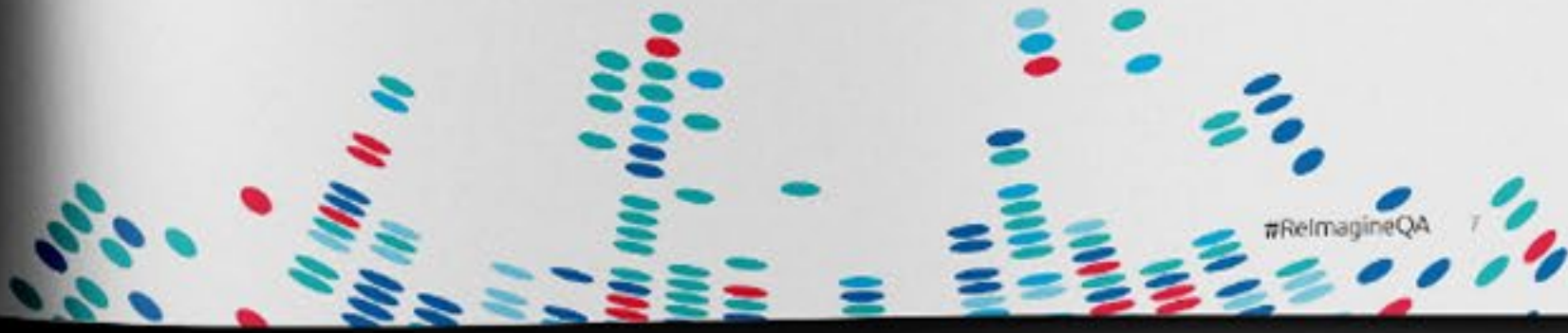
As organisations evolve to stay relevant in today's ever-changing landscape, the modernisation of your technology is the window to facilitate an effective and sustainable vehicle for change to create value and to meet with your customer demands.



"In this age of agility and increasingly higher customer expectations, organisations are expected to deliver seamless connected experiences at speed. Many CEOs are leading the charge of their digital transformation and scaling digital change more sustainably, all to put customer value first."



Olaf Pietschner
Managing Director
Capgemini Australia and
New Zealand



“ Education of best practices and testing techniques across the team will help drive higher levels of quality throughout the process, with a QA governance layer having oversight of deliverables.

The increased requirement to test at speed demands timely environment availability, however, providing a fully integrated service virtualisation tools has provided solutions to support early testing and provisioning of E2E environments and we



continue to see enhancements of these offerings to assist in addressing pain points. Australia Post is also continuing to explore automation opportunities to pro-actively identify environmental issues and take action to reduce outage impacts.

Equation for service providers and the changing role of the tester

Having access to skilled resources and SMEs to meet the changing demands of the business is a critical requirement of any service provider. For quality assurance, skills such as automation, CX, AI and ML and quality engineering (SQE) are in increasing demand. Experience working in a CI/CD environment is also valuable because testing is moving away from the 'phased' approach as it becomes an intrinsic part

of development. Knowledge of emerging testing technologies is also very important.

“ Bringing innovation and thought leadership into partner organisations is a must for our service providers.

Testing roles are changing – shifting left, working more closely with the developers to introduce testing early in the lifecycle, and shifting right to support continuous testing, especially in the context of Agile development and DevOps. Testing plays a major part in both areas, but we should view a

as 'holistic testing' rather than left or right – an opportunity to integrate testing into every development and operations activity that the teams perform.

The insights gained from testing can provide valuable feedback to the business, operations and development teams in all aspects of the customer experience. The tests become the 'glue' between the different worlds.

However, some of the concepts of shift right, such as production testing, are a shift in thinking from the traditional 'test until you are confident all issues have been identified and fixed'. With shorter implementation and release cycles, testing, development and production teams do come closer together.

Overall, bringing innovation and thought leadership into partner organisations is a must for our service providers.

#ReimagineQA



The technology behind the taste

David McMullen, Director of Technology,
Matt Cottee, Manager – POS Systems, Cashless,
McDonald's
Digital and Technology Deployment

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are done when an idea comes up and there are challenges around how we bring it to life, particularly how that there are multiple customer facing platforms to consider. It's a hard world to live in.

Keeping all that data and analytics secure

As far as the analytics go, we have all the obvious tools that you would expect in our customer-facing platforms to be able to feed into an Adobe platform, then push from order journey - what people are clicking on, their path from order to delivery and whether there are any friction points within that journey. Our Digital and Insights teams investigate that data and information, and that forms the basis of how we construct our views on the customer-facing platforms as to how the lead volume of friction points.

From a customer perspective, we take data privacy and security very seriously, which is in line with standards with Payment Card Industry Data Security Standard (PCI DSS). At the core of this is ensuring we are keeping our customer data and call information secure. When we talk about the security of our platforms, including security penetration testing of any new platforms, we're talking end-to-end

validation for PCI reasons and ensuring we aren't doing customer information in plain text and are complying with everything else that is required.

“ We're not in this space to play a risky game - we have to be really, really careful. ”

We have global teams that set very clear governing guidelines as to how we adhere to this security and compliance, and we follow all requirements. It's a point that we comply fully given the complex nature of a business of our scale.

We have some great partners and suppliers that work with us to ensure our systems are secure, that we have the right hardware, and the right embedded from a network segmentation perspective. At the end of the day, we're a benign company, not a security company - but it's our responsibility and we have the right partners to always ensure the security of every single customer.

Sector Analysis: Energy, utilities, mining and chemicals

Digital value chain automation - safe, secure and compliant



Jan Lindhaus

Vice - President | Head of Sector EUC, Capgemini Australia and New Zealand

Energy and utilities

The Australian energy industry is transitioning from fossil fuels to renewables. This change in the energy generation mix is increasing the complexity in the management of energy supply, requiring new technologies to monitor, automate and analyse the large amount of data being generated as well as an improvement in technology to ensure a continuous energy supply to customers.

The integration of information is becoming a key focus in this market in order to manage the complex networks of energy resources, energy players and government requirements. Traditional players are reimagining their businesses to stay relevant. New market entrants are arriving with cheaper Agile

operations forcing traditional energy players to rethink their business models.

With increasing renewable targets, cheaper renewable technologies and new players entering the mix, the transition is well under way and will continue to evolve over the next five to ten years. The use of digital technologies and methodologies to assist is a key part of the success of this transition.

Mining

The mining sector is in recovery mode, thanks to the



Enabling excellence
on all levels

Vicki Connor
Enterprise Test Architect
Deakin University

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“ Delivering Post to the future ”

Donna Shepherd
Head of Testing and Service Assurance
Australia Post

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“ Living in the future ”

Uthura Gamatayake
Tech Enablement Manager
AGL

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“ Keeping the water flowing ”

Ian Robinson
CIO
Westpac

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“ Control over data is imperative ”

David Hayman
Chief Australia and New Zealand Testing Board (ANZTB)
& Test Practice Manager, Canada

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“ Insuring quality for customer and business ”

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“ How regional privacy policies add complexity to QA ”

Nathalie Turgeon
Head of Project Delivery
AXA Shared Services Centre (Morris, Philippines)

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“ The transformation of Equifax and the impact on QA ”

Raulo Hamilton-Smith
Chief Information Officer
Equifax, Australia and New Zealand

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“ Insuring an Agile future ”

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“ Working towards a safer Victoria ”

Philip John
QA and Testing Services Manager
WestSafe Victoria

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“ QA moves on at ME Bank ”

David Lechrie
General Manager, Digital and Integration
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