

AI-Augmented Testing — What It Is and Why It Matters

Joachim Herschmann

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Ask Us

We're here to help. If you need anything, chat with a team member at an information desk or in the Conference Navigator app.

Deployment time!

Are you **confident** about the quality of your release candidate?



33%

of software engineering leaders say
improving software quality is among the
top three objectives they are measured on.

**You must enable your teams
to **accelerate** testing and
improve software quality.**



Key Issues

1. Why should I invest in AI-augmented testing?
2. What are the areas of greatest impact?
3. How can I prepare for a future of AI-driven testing?

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56%

of software engineering leaders
**identify quality and testing skills as
a current gap** in their organization.

n = 299; Engineering leaders with teams focused on application development/software engineering, excluding unsure

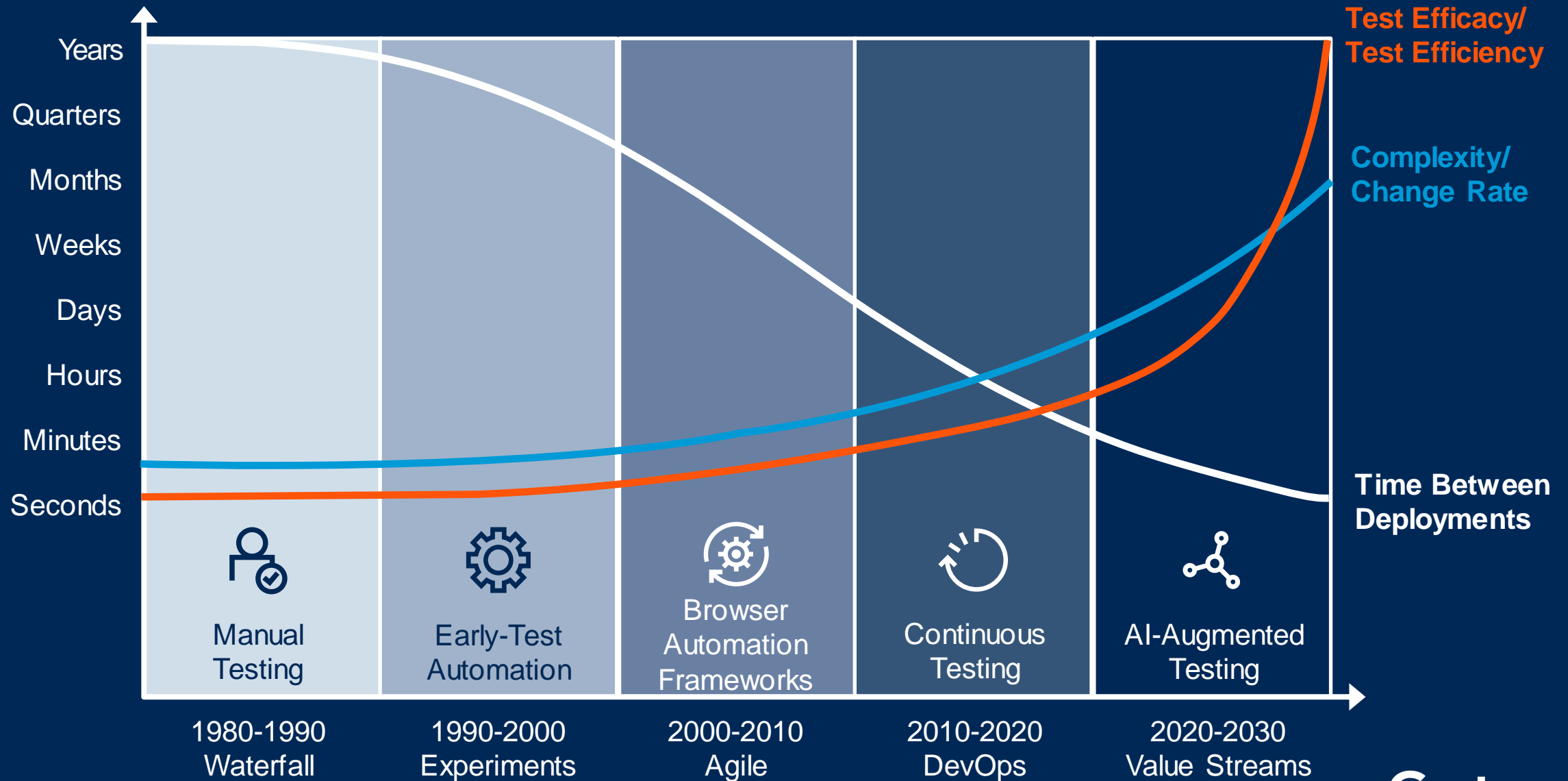
Q: Does your organization have pain points or gaps related to a lack of any of these skills?

Source: 2022 Gartner Software Engineering Leaders Role Survey

Traditional software testing approaches fail to deliver innovation quickly and lack the agility to quickly respond to defects.



The Evolution of Testing



AI is revolutionizing software testing!

84% of IT leaders say that AI/ML features are more important than other features in test tools selection.



ML = Machine Learning

AI-augmented software testing applies AI technologies to aid software engineering teams in **testing faster and more effectively.**

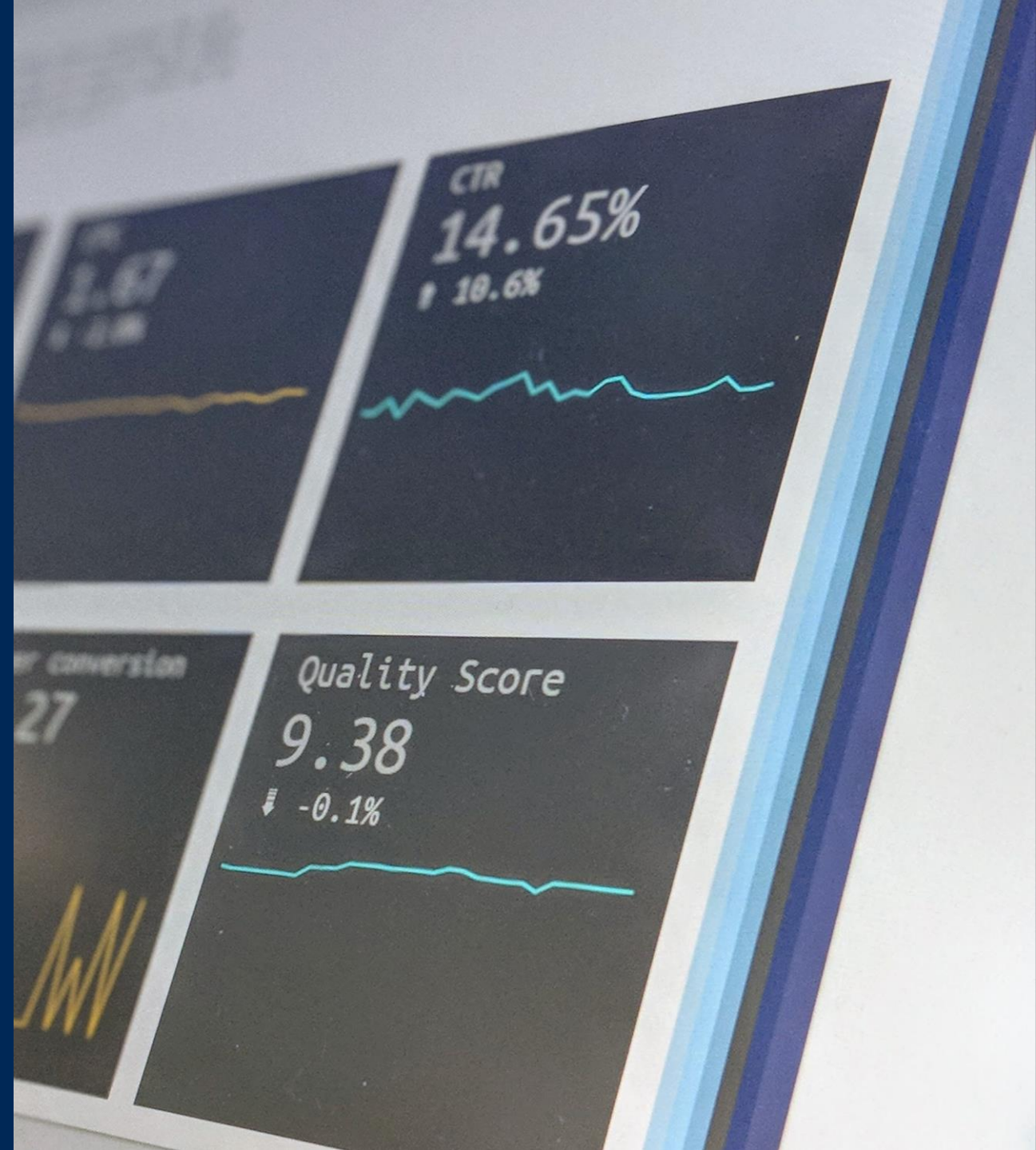


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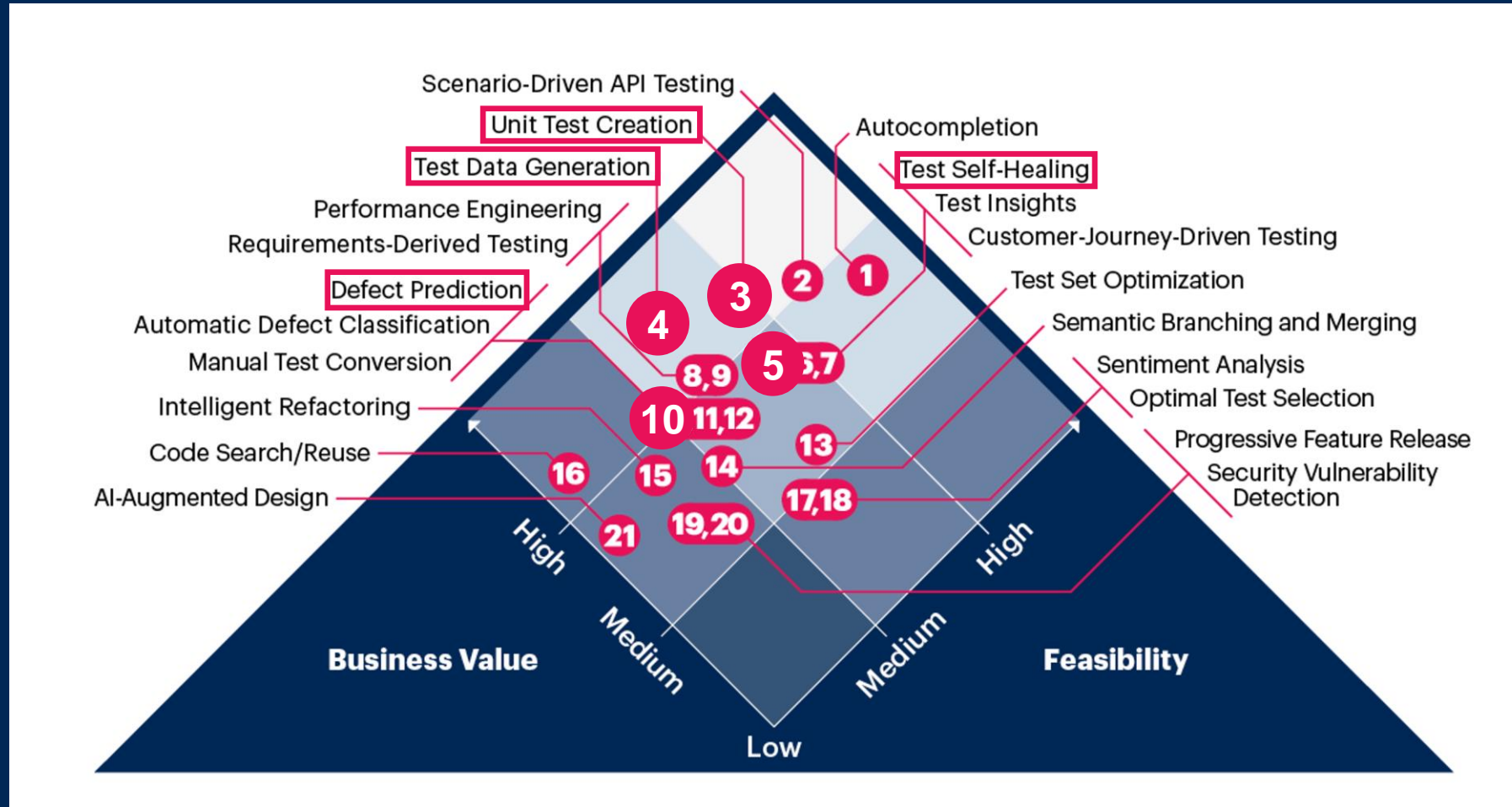
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Improve
software quality.

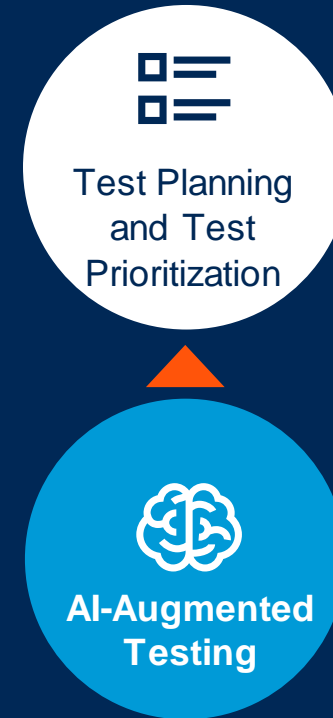
Identify the areas in
software testing where
AI is most applicable.



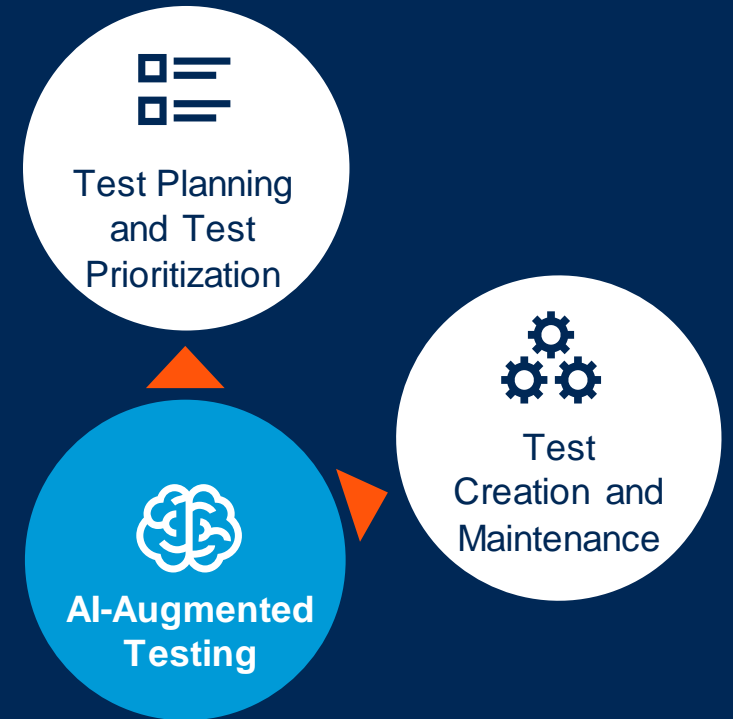
AI Use-Case Prism for Software Development and Testing



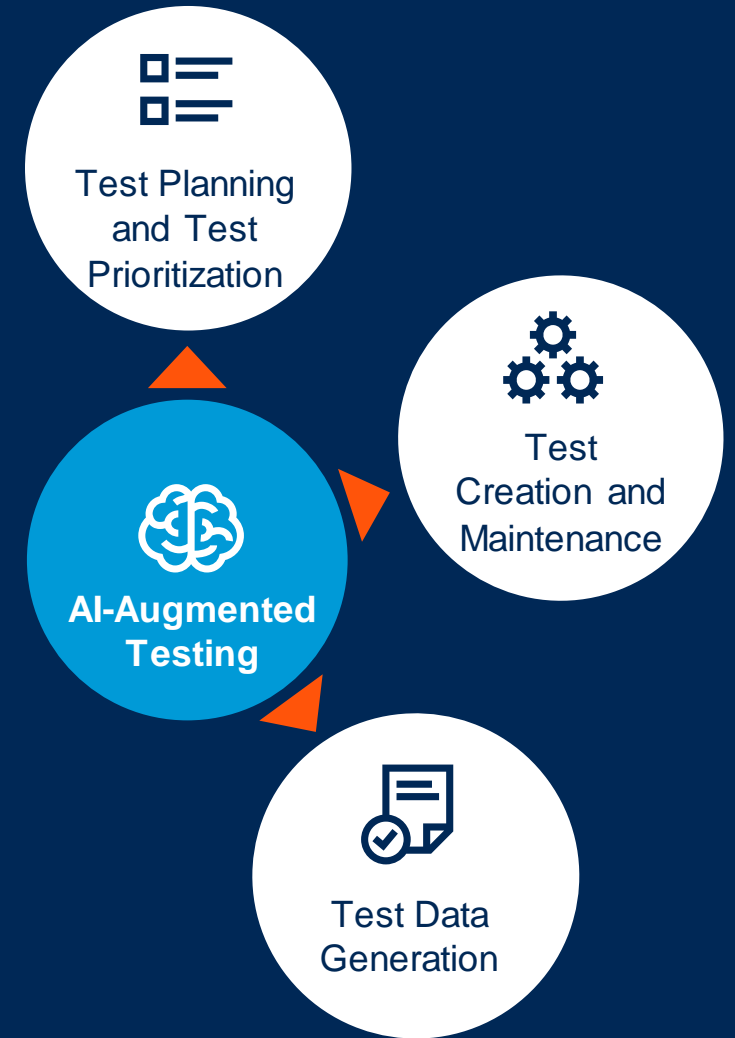
Areas in software testing where AI is most applicable and impactful.



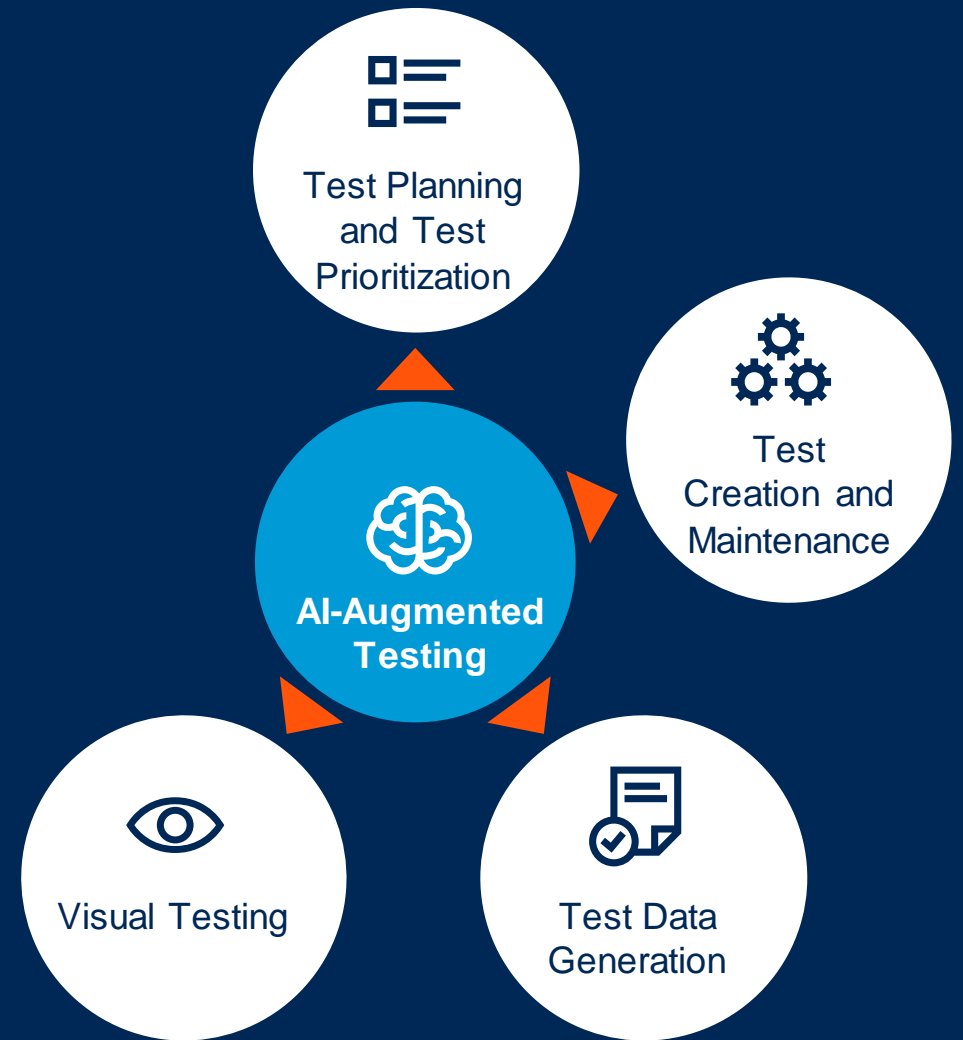
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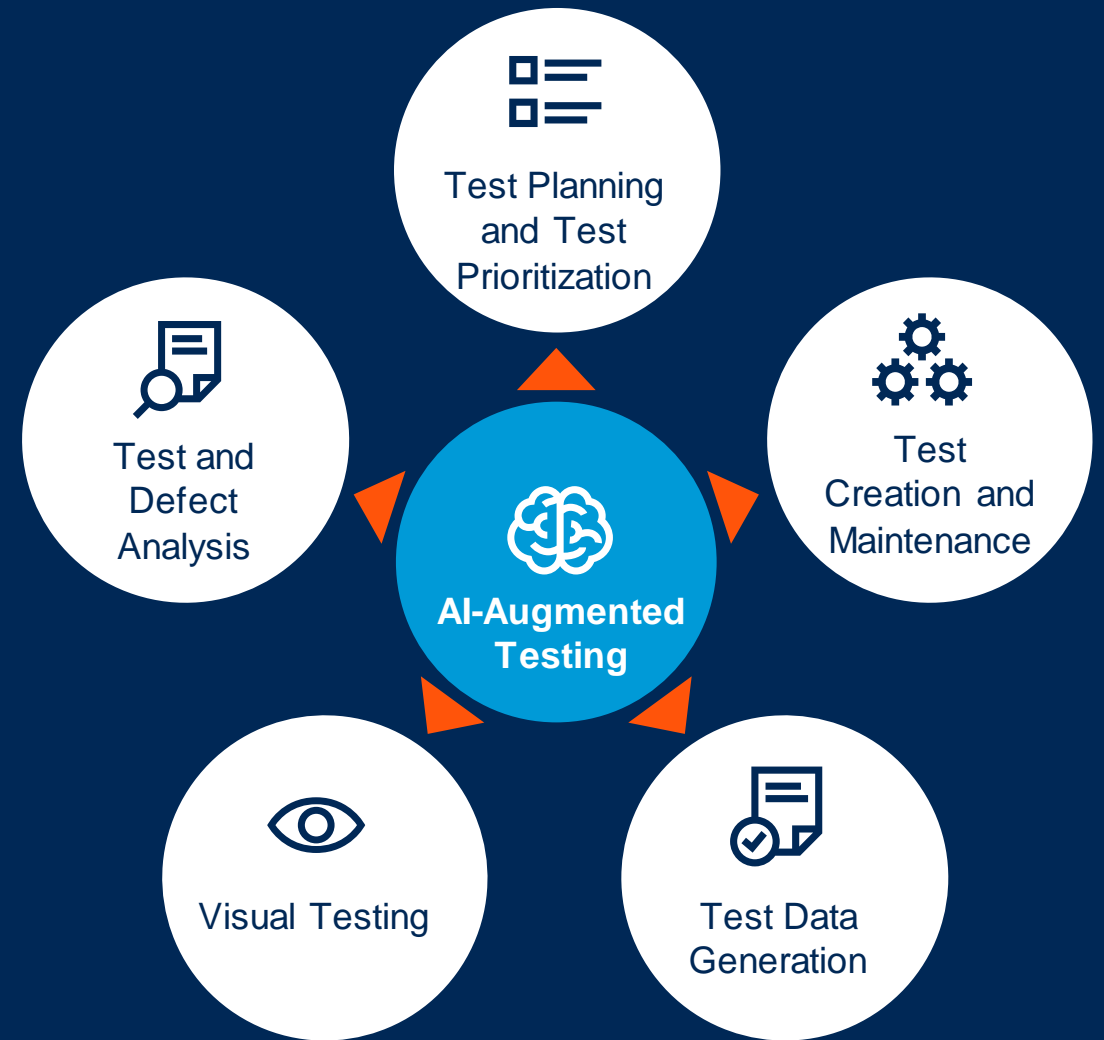
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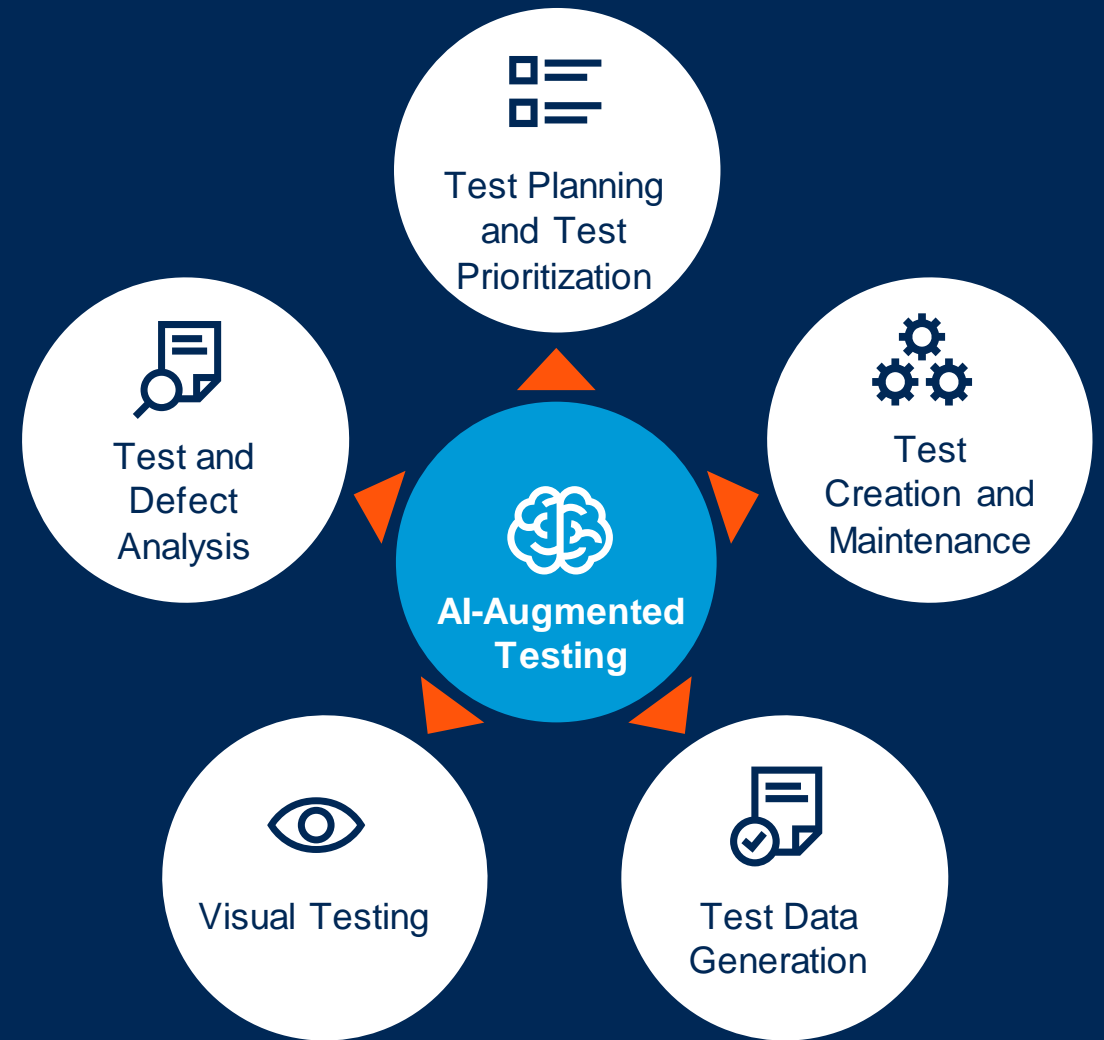
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Areas in software testing where AI is most applicable and impactful.



The New Kid on the Block

Generative AI

Risks

Hallucinations

Subpar Training Data

Copyright Violations

AI thrives on data.

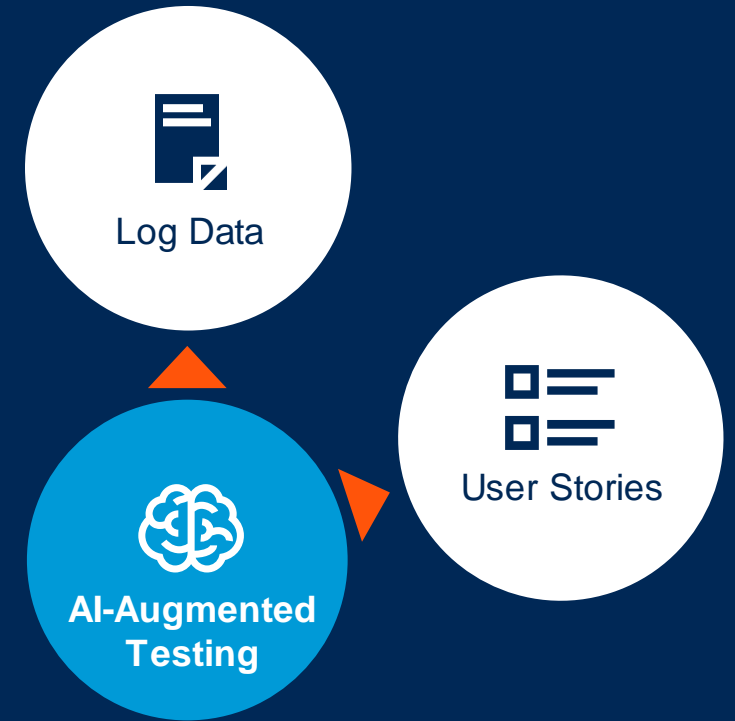
Identify the data sources that are available to you.



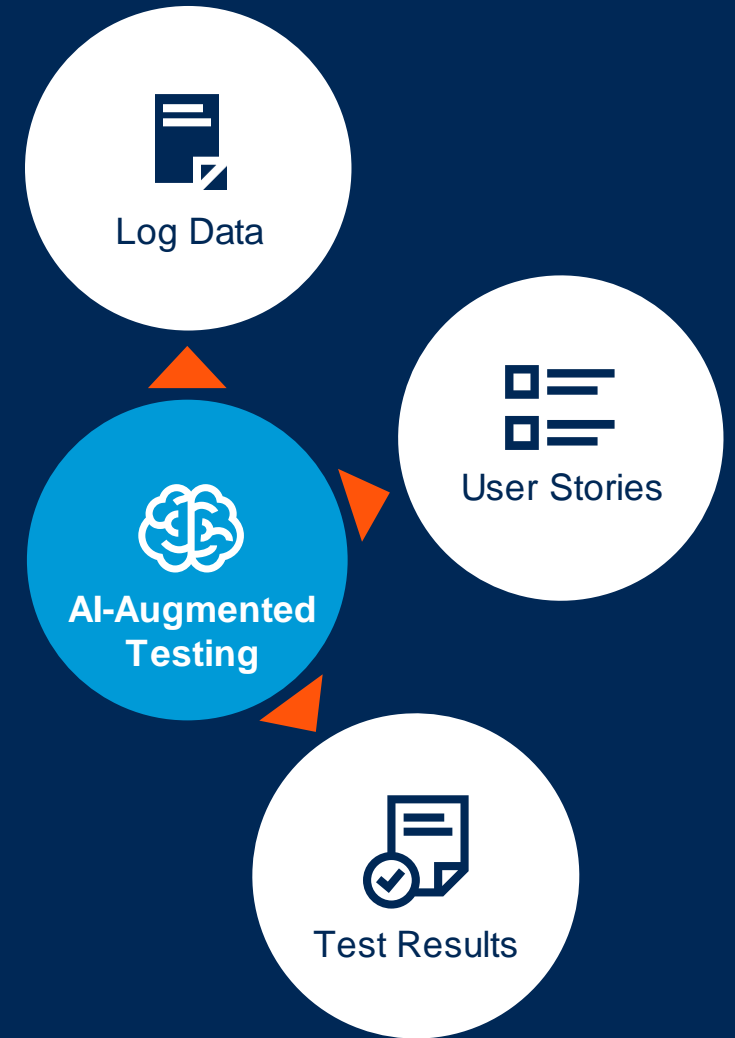
Increase the value
of AI-augmented
testing by
exploiting available
data sources.



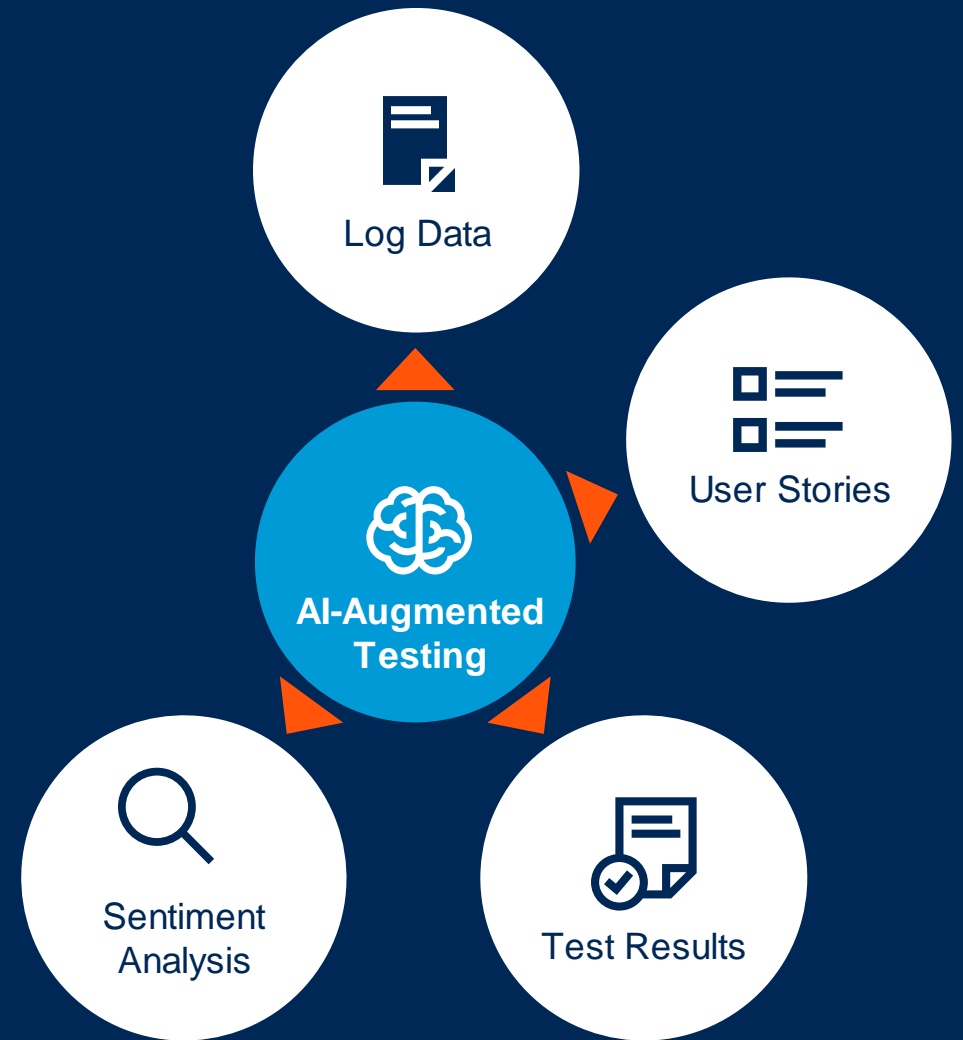
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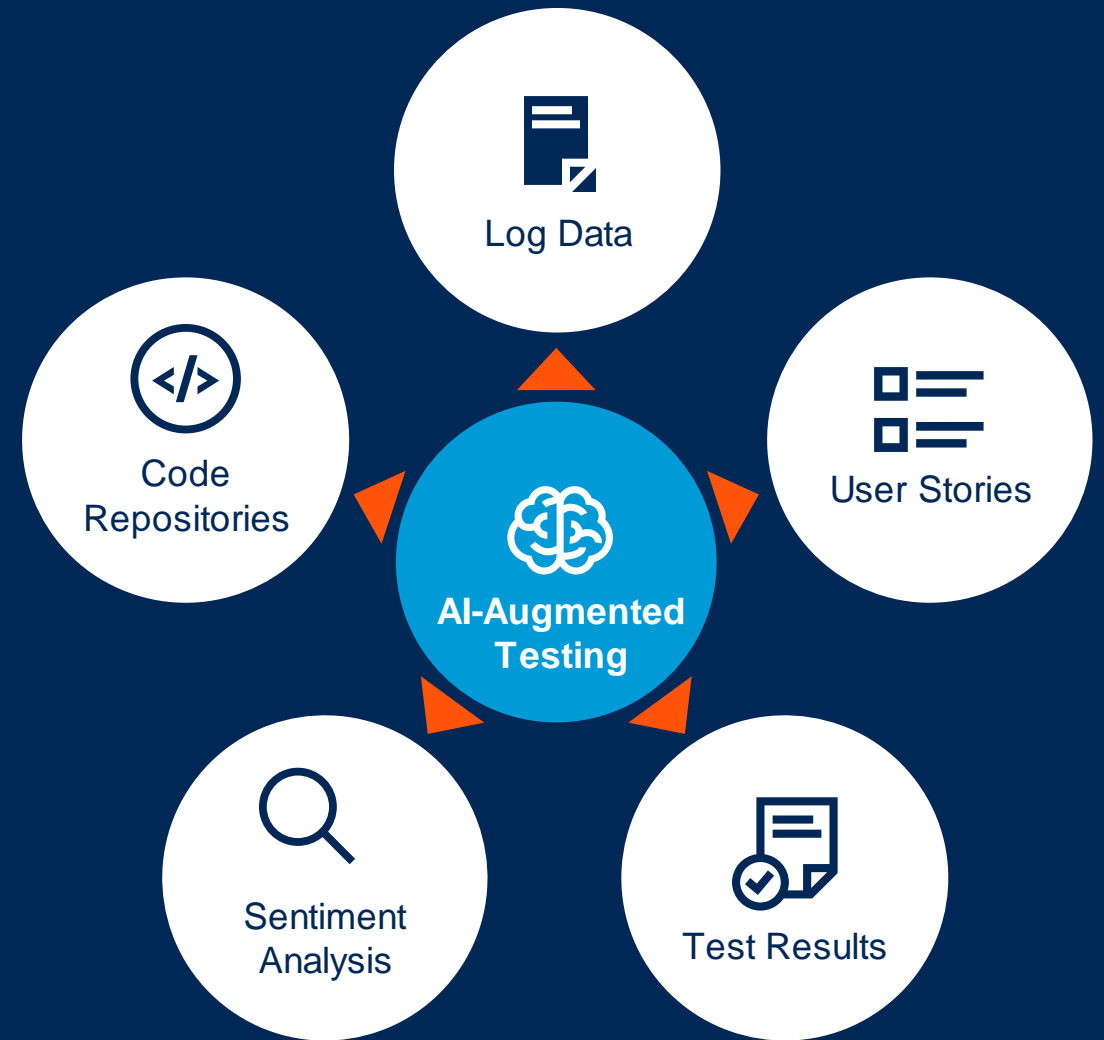
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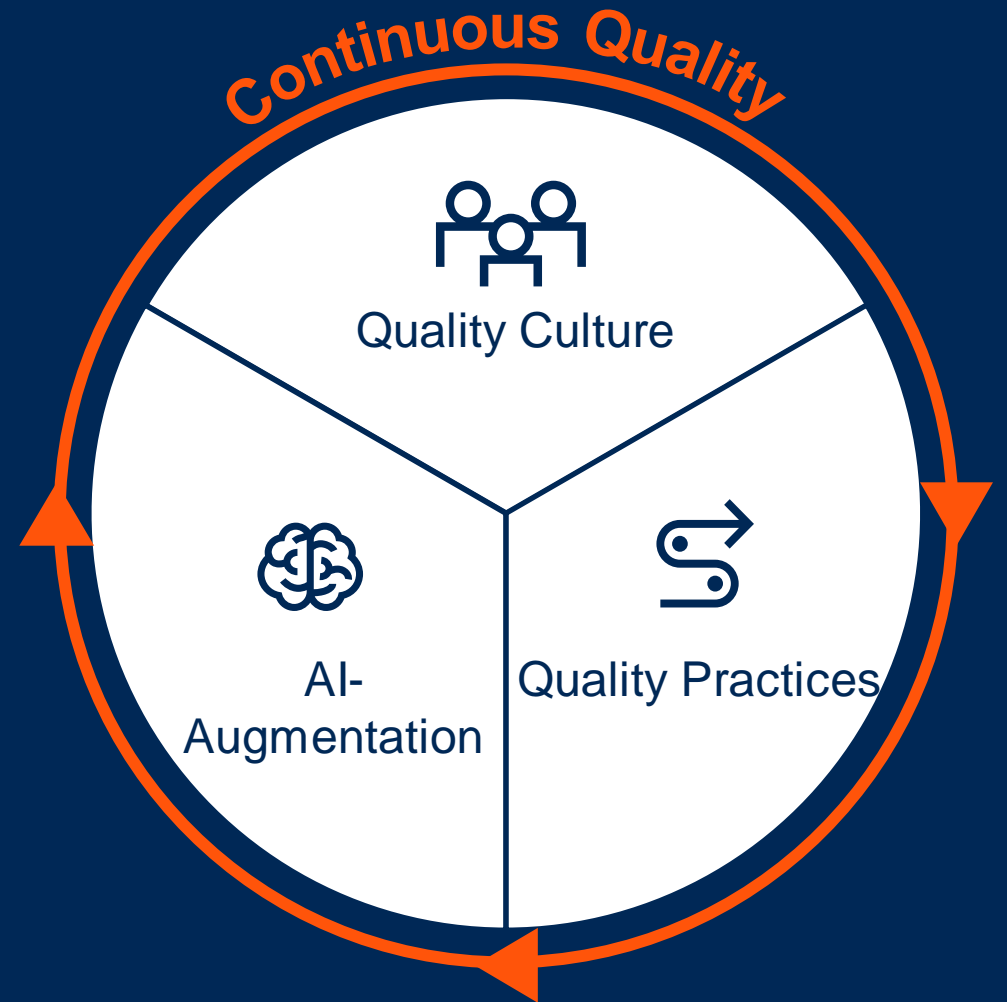
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**Approach AI with an
open **mindset** and instill
an **AI-first** mentality in
your teams.**

Make **AI-augmentation**
an element of a
continuous
quality strategy.



**Invest in the
skills your
teams need.**



Prepare for the **long-term effects** of AI.



**Security
Concerns**



AI-Building AI



**Democratization
of Technology**



**Workforce
Impact**

**AI-augmentation is
about **augmenting**
teams not
replacing them.**



Start Today!

Don't wait to take
advantage of
these technologies.



Recommendations

- ④ Build the foundation by identifying the areas in software testing where AI is most applicable in your organization.
- ④ Instill an AI-first mentality in your teams and make AI-augmentation an element of a continuous quality strategy.
- ④ Invest in talent and relevant skills and pilot the use of AI-augmented testing technology.
- ④ Provide the environment for teams to continuously improve AI/ML-related skills.

Recommended Gartner Research

- Q **Quick Answer: How Can AI Provide Benefits for Software Testing?**
Joachim Herschmann, Jim Scheibmeir and Thomas Murphy
- Q **Infographic: Artificial Intelligence Use-Case Prism for Software Development and Testing**
Joachim Herschmann, Alexander Linden and Arun Batchu
- Q **Market Guide for AI-Augmented Software-Testing Tools**
Joachim Herschmann, Thomas Murphy and Others
- Q **Innovation Insight for Continuous Quality**
Joachim Herschmann, Thomas Murphy and Jim Scheibmeir
- Q **Quick Answer: How Software Engineering Teams Can Leverage AI**
Anthony Mullen and Van Baker
- Q **The Impact of AI and ML on Software Engineering**
Van Baker and Anthony Mullen

We'd love to hear your thoughts on this session

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