Setting the stage: #havefun #greatdiscussions

1. Reflection on the history of software testing tools: past, present and Status Quo

2. Current & future trends

3. Open Forum / Q&A
HISTORY OF SOME OF THE CLASSICS

IBM
- Established 1981
- Est. 2007
- Est. 2011

Kobiton
- Est. 2016
- Est. 2016

Katalon
- Est. 2011

Tricentis
- Established 2007

Mercury Interactive
- Established 1989

HP
- 2006
- 2009
- 2010

Fortify
- 2010

Micro Focus
- 2017

Dxc Technology
- 2015

Borland

IBM SW sold off to HCL Technologies

Kobiton, Katalon, QASymphony built by the same founder, out of Vietnam
Kobiton → Mobile testing
Katalon → Functional automation

< Full functional no code automation, test mgmt., non-functional performance, SAP & compliance capabilities, investing in AI >

< Full functional low/no code/full automation, test and agile mgmt., non-functional performance & security, full VSM, investing in AI & >
• All/most COTS and platform vendors renamed/aligned product sets to AI narratives
• Focus on specialized AI plays
• Competitive migrations & displacement campaigns (i.e. UiPath < > UFT)
• Oracle, SAP, ServiceNow developed OWN testing tools
• “draw inspiration from others” - i.e. Applitools & DataDog
• Vendors (UiPath and Leapwork) shift pure RPA -> testing

• Selenium, Postman continue strongly
• High maintenance → decline in OSS downloads/usage in Enterprise organizations (complementary plays)
• OSS adoption of AI - i.e. GitHub Copilot
STATUS QUO TECH MARKET

- All IPPs and large global consultancy brands locked in a race to develop AI-driven solutions
- Heavy investments (tens of $m) into AI-related platforms & projects
- Focus on M&As to strengthen AI portfolio
- New Legislation & Standards
  - EU AI Act
  - IEC 42001:2023 - governing AI effectively
  - California: GenAI Copyright Disclosure Act
  - ... more to come
- Canada $1.7b federal investments for AI
- Fierce battle for skills - AI jobs (Snr AI Scientist)
- Ethical dilemmas & egos (OpenAI vs. ClosedAI)

Sources: Statista | IDC | Gartner | Canalys | Coherent Insights | Others

- IT spend est. $5.06t 2024 avg. 8% growth rate
- Global testing market size est. +$35bn 2023 → $90bn by 2030
- Partner-delivered tech & services est. $3.4t in 2023, ~70% of total IT spend, growth rate 3.7%
- Cloud marketplace providers are fastest growing
- AI market est. $200bn 2023 → $1.8t by 2030

- IT spend est. $5.06t 2024 avg. 8% growth rate
- Global testing market size est. +$35bn 2023 → $90bn by 2030
- Partner-delivered tech & services est. $3.4t in 2023, ~70% of total IT spend, growth rate 3.7%
- Cloud marketplace providers are fastest growing
- AI market est. $200bn 2023 → $1.8t by 2030
Areas in software testing where AI is most impactful.

Per Gartner, 84% of Engineering leaders say that AI/ML features are more important than other features in testing platform selection.
QUANTUM LEAP (FROGGING): THE TRENDS

The Trends in Software Quality Engineering are not as different than before as we thought

PLATFORMS
- B2B and B2C e-commerce
- Mainframe & Legacy
- Startup Tech Platforms
- Traditional Packaged Apps (Oracle, SAP etc.)
- Blockchain
- Virtual Reality – VR Experiences
- Wearables, spatial computing, focus on non-functional testing

DELIVERY MODELS
- Agile (decrease in SAFe), DevOps
- Shift Left & Right
- Discrete, Bespoke, Imbedded, Outsourced Managed Testing Services
- Traditional testing structures (TCC, TCoE, Quality or DevOps Factories etc.)

HYPER AUTOMATION
- Traditional (human assisted)
- Autonomous | AI (machine assisted)
- RPA
- Low code & codeless auto platforms
- Green computing (sustainability testing)
- Security & compliance automation

QUANTUM TECH
- Quantum computing – cybersecurity
- Quantum programming & testing

AI ENGINEERING
- Testing with AI
  - Public LLMs
  - Custom LLMs
- Testing for AI
  - Data models
- GenAI assisted exploratory testing
- Autonomous testing
OPEN FORUM &
THANK YOU