PROBLEM TITLE
AIn't it Overwhelming?

CHALLENGE
Marine Corps Tactical Systems Support Activity test engineers need a better understanding of the available automated testing tools in order to reduce the need for manual testing.

BACKGROUND
Marine Corps Tactical Systems Support Activity (MCTSSA) test engineers test communication gear to ensure that it will effectively integrate with existing systems and platforms. Most of the gear is software and requires both automated and manual testing, and MCTSSA engineers depend on both automated and human tools in order to test for software vulnerabilities.

Commercially available products test a specific type of application or provide focused simulation or analysis of the program vulnerabilities and performance. Alternatively, MCTSSA automation products include an open-source framework and test automation tools for a software's user interface that can be used to either directly test or write the code to test a product.

Although test engineers already use automation tools, they lack the awareness of other tools that may enhance or simplify their ability to test software for vulnerabilities. Many of these tools use artificial intelligence (AI) or machine learning (ML) which are both experiencing rapid innovation. In order for test engineers to more strategically plan their automated testing process, they need a better understanding of the landscape of available tools (commercially or open-source) that would reduce the need for manually testing for every potential vulnerability.

OPERATIONAL CONSTRAINTS
- Automated testing often occurs on classified software.
- Solution must be platform and computing language agnostic.

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