Test Automation
Snake Oil!

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“Step right up!”

“Automated tests execute a sequence of actions without human intervention.”

Actual text from a Microsoft whitepaper on automated testing
“Step right up!”

“This approach helps eliminate human error, and provides faster results.”

“Step right up!”

“Since most products require tests to be run many times, automated testing generally leads to significant labor cost savings over time.”
“Step right up!”

“Typically a company will pass the break-even point for labor costs after just two or three runs of an automated test.”

This argument boils down to:

Computers are better than People!
Reckless Assumptions

1

Testing is a “sequence of actions”

Actually, testing is better viewed as an interactive cognitive process.

Reckless Assumptions

2

Testing means repeating the same actions over and over.

Testing has repetitive elements, but it isn’t as repetitive as it seems, and variety is critical to the process.
Reckless Assumptions

3

We can automate testing actions.

Actually, in most cases we can only automate a subset of testing actions, for the rest, we need human testers.

Reckless Assumptions

4

An automated test is faster, because it needs no human intervention.

Faster simulation of keystrokes & clicks is not the same as faster testing.

Human intervention is reduced during execution, but increased during diagnosis.
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5

Automation reduces human error.

It reduces one kind of human error, but it multiplies other kinds of error.

Reckless Assumptions

6

We can quantify the costs and benefits of manual vs. automated testing.

Manual testing and automated testing involve very different costs and benefits, many of which are hidden.
Reckless Assumptions

7

Automation will lead to "significant labor cost savings."

Because test automation augments, but does not replace manual testing, it almost always increases labor cost.

Reckless Assumptions

8

Automation will not harm the test project.

Test automation often distracts testers, obscures the true test strategy, and provides a false sense of security.
Key Points:

- Testing is cognitive, not just clerical.
- Test automation is software development.
- Automation skill isn’t cheap.
- Automation projects aren’t cheap.
- Automation tends to worsen a poor test process.
- Test automation is a promising idea that often falls far short of its promise.
- I mean to be cautionary, not discouraging: You can be successful in test automation if you successfully cope with these problems.