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QUALITY MATTERS

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By NADIA SOLEDAD CAVALLERI, Argentina

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Nadia is an Information Systems Engineer and Psychologist. She has been working in testing and quality for over 19 years, taking on roles such as analyst, tester, consultant, auditor, and leader.

She is also a content creator. Through her courses, she has trained thousands of students, and on her social media channels, she shares her passion for testing and creates Spanish-language content that's easy for everyone to understand. Additionally, she writes for magazines, blogs, and books, and gives conferences.

Nadia co-founded Argentesting, was a judge for the Software Testing World Cup, and has been part of the review committee for many conferences and certifications.

She has been recognized by Abstracta as one of the most influential women in testing, by Globant as a Digital Leader in Argentina (2021), and by ISTQB as a Global Finalist for the Excellence Award

Artificial Intelligence (AI) is no longer a distant future or a passing trend. It's a force driving change across industries, from healthcare to finance, and testing is no exception. As AI integrates into more systems, the role of software testers is evolving. It's crucial that testers adapt and develop new skills to keep pace with this technological shift. Soon, knowledge in AI will no longer be just an advantage, it will be a necessity.

For software testers, understanding AI is now critical, not just to improve their own workflows but to prepare for an impending market demand. This need arises from the increasing likelihood of testers being called upon to validate AI-driven systems.

Here's an example to help you self-assess how prepared you are to face the challenges of testing an AI system. Imagine we have an AI system that classifies medical images to detect anomalies and recommend diagnoses. This system uses deep neural networks and is trained with historical data from millions of images. It also includes a component that adjusts its model based on feedback from doctors and a module that explains the reasoning behind its decisions to help users trust the results. How would you design a testing strategy to verify both the system's accuracy and its ability to continuously learn? What metrics would you use to measure the effectiveness of the feedback or the clarity of the explanations? If this seems overwhelming, don't worry, it's a sign of how much we still need to learn to tackle these kinds of questions in AI testing.

And in case this example isn't enough, let's break down why it's important for testers to dive into AI.

MOVING BEYOND BASIC AI TOOLS

When AI first became popular, the initial focus was on how testers could use it to enhance their work (designing smarter test cases, automating repetitive tasks, and leveraging AI-based tools to improve productivity). This was exciting, but that stage has passed. What testers need to focus on now is testing the AI itself.

The systems we're testing are becoming more complex as they incorporate AI and testers need to be equipped with the right knowledge to handle these challenges.

THE GROWING NEED FOR AI TESTERS

More organizations are embedding AI into their operations, which means the demand for testers with AI expertise is rising. Major tech companies, financial institutions, and even startups are hiring testers who understand AI systems and can verity these systems work reliably. Companies are also beginning to seek engineers capable of testing AI-driven features or entire AI products, creating a fresh market of opportunities for proactive professionals.

Testers who are proficient in AI will find themselves standing out from the crowd. It's not just about learning how to use AI tools but becoming skilled in testing AI itself.

BEING PROACTIVE IS KEY

In the fast-paced world of technology, it's better to anticipate the future than to react to it. Learning AI now, before it becomes an absolute necessity in every testing job, gives testers a competitive edge. When testers are proactive in learning these skills, they are better prepared and more employable. Those who wait may find themselves scrambling to keep up, often settling for suboptimal training just to meet immediate project demands.

SHAPING THE FUTURE OF TESTING

There is still a lot of work to be done in defining processes, establishing best practices, and developing methodologies in AI testing. For those looking to make an impact, mastering AI provides the opportunity to lead these innovations. Testers can help create the frameworks for testing AI systems, shaping the future of an evolving industry.

WORKING ON INNOVATIVE AND HIGH-IMPACT PROJECTS

It's true that you don't need to work in AI to get involved in innovative and high-impact projects, but it's also true that many AI projects are highly innovative and are leaving a significant mark on different industries and aspects of life. So, if you have a more altruistic goal, this might also be a good reason.

CONCLUSIONS

The good news is that there are more and more resources available for testers to expand their AI knowledge. From online courses and certifications to hands-on projects.

In my case, I've made a small contribution to the industry with the first Spanish-language course on AI systems testing. This course provides the fundamentals to dive into this fascinating world. We explore basic AI concepts, discuss the particularities of the AI model-building process, and differentiate it from traditional testing. We learn about the most relevant quality attributes in this field, interact with some AI systems, develop testing strategies, and I even included a section to address common vulnerabilities that OWASP has already identified in these types of systems. Both this course and others, as well as certification syllabi, can help you get started in this world. I believe that by learning to test AI systems now, testers can secure a place in this growing field, differentiate themselves in the job market, and contribute to the future of technology. I think there are plenty of reasons; now it's your turn to decide to join this fascinating proposal.