

CHECKLIST:

BRINING MACHINE LEARNING TOOLS TO YOUR TECH ECOSYSTEM

Integrating a powerful machine-learning-based artificial intelligence engine into an existing IT system can be fairly straight-forward or can present a time-consuming (and expensive) challenge. It may be wiser and more efficient to upgrade components ahead of time to ease the new integration or even perform a large-scale overhaul of technical operations. Either way, assessing your readiness and knowing potential pain points is the first step.

THE KEY AREAS OF CONCERN INCLUDE:



API Integration



Language and Scripting



Development Process



Local VS. Cloud Servers

CHECKLIST:

AREA	WELL-SUITED (5 points)	SOME WORK REQUIRED (3 points)	SUBSTANTIAL CHANGES NEEDED (1 point)
API INTEGRATION	WELL-DOCUMENTED OPEN APIS ARE IN PLACE. Use of an open architecture that’s supported by the app developer teams speeds the adoption of automated tools that may already be configured for environments similar to yours. Y N	SOME OPEN APIS IN USE. OTHERS MAY BE CLOSED OR SIMPLY NOT WELL- DOCUMENTED. Developing for closed or rarely used APIs can be time-consuming and expensive. With a hybrid system that has both closed and open APIs, a strong machine learning system can help interpret. Y N	CLOSED APIS IN USE AND LOCKED DOWN. Some commercial software simply can’t integrate well with certain architectures. A full audit of your systems may show that you have certain technical stumbling blocks that must be solved before deploying machine learning tools. Y N
LANGUAGES AND SCRIPTING	COMMON LANGUAGES AND LIBRARIES IN USE. If scripts and applications are written in C#, Python, Javascript or other common languages, an AI tool will likely already be able to communicate with it. Y N	CUSTOM OR LEGACY TOOLS WRITTEN FOR UNUSUAL LIBRARIES. Many special functions may exist only in a rarely used language or script library. Developers with experience in unusual languages such as LUA are harder to find and thus more expensive. Y N	EXISTING SYSTEMS ARE WRITTEN IN OLDER CODE AND NOT WELL- DOCUMENTED. A full system modernization is sometimes the only solution to older legacy systems. Y N
DEVELOPMENT PROCESS	OUTSOURCED TO DEVELOPMENT-AS-A- SERVICE PARTNERS WITH MACHINE LEARNING EXPERIENCE. The specialized expertise required to implement a machine learning system works best with a strong, experienced support system. Y N	EXPERIENCED CONTRACT WORKERS. Employing freelanced contractors as developers is a good way to bring in top talent – if you have the budget for it. But it can be difficult to maintain a support system for a large team of developers. Y N	IN-HOUSE DEVELOPERS HANDLE CUSTOM CODING. Supporting a full in-house development team for standard apps is hard enough. Finding and retaining top talent in AI and data science has proven to be a major challenge for small companies. Y N
SERVER INFRASTRUCTURE	CLOUD-BASED THIRD-PARTY MANAGED SERVERS. Purchasing IT-as-a-service from another party takes a lot of the upfront costs, issues of scaling and longterm maintenance and capital expenditure out of the equation. Y N	HYBRID BETWEEN LOCAL AND CLOUD SERVERS. Hosting specific services or functions locally can allow you to augment your processing power and speed by purchasing specialized hardware. Performance may be better, but costs will be higher. Y N	COMPLETELY LOCAL SERVER ARCHITECTURE. The hassle of maintaining and owning hardware is too much for many companies. But the major issues comes when you’re trying to scale up or down to match performance needs. Adding servers or having unused processing power can become a cost sink. Y N
YOUR SCORE:			

SCORECARD:

- 18-20 POINTS:** Congratulations. You may already be prepared to explore a machine-learning integration that will revolutionize your technical infrastructure.
- 14-17 POINTS:** Your system should support a machine-learning engines with minimal integration costs.
- 10-13 POINTS:** With a few modifications and tweaks to your system you will be ready to go. Be prepared for moderate development time and costs before you can go live.
- 4-9 POINTS:** The good news is that your operations can probably realize substantial benefit from automation and machine-learning analytics. But development and deployment costs may be substantial.