

10 Enterprise AI and ML Trends to Watch in 2021

This year was certainly an interesting one for artificial intelligence and machine learning. The ongoing COVID-19 pandemic put new funding pressures on organizations across all industries, which in some cases reduced AI investment — or at least held it steady.

At the same time, automation and cloud computing became more important for companies that increasingly relied on remote workers. With many people still working remotely as 2020 comes to a close, and some expected to stay remote indefinitely, cybersecurity, cloud computing and edge computing are all factors to watch over the next 12 months.



If we've all learned anything this year, it's that we can only ever predict so much about how the next year will go. But we can know where to focus our attention. With that in mind, here are 10 enterprise AI and ML trends to keep an eye on in 2021.

Scaling AI

Hype aside, right now only a small number of companies are actually deploying AI at work — about 10% overall, according to U.S. census research. Over the coming year, companies investing in AI will continue to search for ways to get a return on that investment. The gap between the AI haves and have-nots is likely to expand, as the census research from this year showed that smaller companies are less likely to bring artificial intelligence into their business operations.

Role Expansion for AI/ML Integration

To really scale AI and ML across an organization, expertise needs to go beyond the IT department. Roles such as AI manager, content services administrator and data broker will begin to emerge at AI-leading organizations, if they haven't already. Successful investment in artificial intelligence in 2020 will mean investment in recruitment, retention and skill upgrades. Investment in existing staffers is a way to both get around shortages of skilled workers and ensure a commitment to diversity and inclusivity in your organization.

Robotic Process Automation

Automation took on new importance in 2020, and robotic process automation (RPA) is a growing sector — albeit one that is still relatively limited, with Deloitte finding that only 3% of organizations had scaled RPA beyond 50 bots. But if the scaling of RPA continues as expected, jobs could be a casualty of efficiency. AI can put together straightforward contracts for lawyers, for example, and chatbots can replace customer service associates to cover simple inquiries.

Getting Business Value from AI

There is light at the end of the tunnel due to successes in COVID-19 vaccine development, but 2021 is likely to remain financially tricky for many industries. For a lot of organizations, continued investment in artificial intelligence will need to be justified by return on investment. For most companies, that's not yet a guarantee; a Mindtree survey found that while 77% of organizations had invested in some kind of AI strategy, just under a third had seen a return on investment.

Automated AI Development

One path to getting that ROI on AI is through automating its development. No-code and low-code software provide automation options for companies that might not otherwise be able to access them, for example. Similarly, auto AI solutions take care of data prep, model development and optimization. Google's auto machine learning software recently made code better than the programmers who wrote the program, for example.

ML in the C-Suite

Artificial intelligence's and machine learning's expansion throughout organizations must include the C-suite. An Appen survey this year found that executive involvement in AI initiatives is increasing, with more emphasis placed on high-quality training data. AI can also help executives do their jobs — for example, a survey found that a quarter of finance managers already use AI, and half expect to within three to five years.

AI and Edge Computing

Essentially, edge computing is computing done at or near the source of data as opposed to in the cloud via a data center. As more computing is done on devices, edge computing becomes increasingly valuable — and that is true for artificial intelligence also. This is especially true right now, as more people than usual are working remotely. Look for the expansion of edge computing services that support AI and ML in 2021.

Augmented AI

When we think of artificial intelligence, many of us think about what computers can do without humans. But there is potential in augmented AI — what computers can do with human assistance. Bringing people into the process can boost AI and ML integration, and some argue that augmented AI will also improve productivity and reduce repetitive work without the same negative effects on employment that many fear via automation.

Bias and Ethics

The news in early December that Google researcher Timnit Gebru left the company after criticizing bias in its AI systems, as well as efforts to increase diversity in hiring, shows the importance of AI ethics in the enterprise. Ethical enterprise use of artificial intelligence and machine learning is increasingly important to consumers, so watch for it to remain a hot topic as AI implementation ramps up.

AI as a Service

It makes sense that software as a service has expanded to AI, especially as companies struggle to scale up with artificial intelligence and find business value. AlaaS allows organizations to experiment with AI with less risk and investment, which is especially valuable for smaller organizations or those in sectors where AI is less established. With the big tech players in the AlaaS game, look for it to continue growing in 2021.

Author: Terri Coles – is a freelance journalist specializing in Information Technology at ITPro Today