

Three Things to Watch in AI in 2022



It's critical to keep a finger on the pulse of AI developments. Here are three trends that those involved in creating successful AI and ML models need to heed.

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- December 13, 2021

Artificial intelligence (AI) and machine learning (ML) models hold the potential to identify customer trends and patterns, to quickly adjust at scale to improve business insights and processes, and to generate new revenue streams. However, the promise of AI and ML models to make things easier by computerizing human cognition has seen its challenges and will surely see more as the industry matures.

It's critical to keep a finger on the pulse of AI developments because it helps to learn from others' mistakes as well as their victories. It also helps you envision new possibilities, which is a key component of AI's appeal for businesses. With that in mind, here

are three trends that those involved in creating successful AI and ML models need to pay attention to as we move into 2022.

Trend #1: The need for localized AI/ML models will significantly increase

AI and ML models are only as "intelligent" as the data they are fed. When you rely on these models to grow your business, they need to respond to the myriad external factors that will affect your desired outcome. That's why experimenting with localized AI/ML models is becoming necessary for businesses to have a clear understanding of their demographics. When you're implementing AI/ML in your business, typically what happens is that with the first few versions of the models, you can see a lot of change. You're able to quickly move from zero to 60 percent of the way toward complete success in your AI journey with just a few tweaks to the algorithm. Going

from 60 to 90 percent gets much harder; when you're trying to expand, you must also start thinking more about the differences among your various use cases. For example, a U.S.-based company's AI models might work fine for how things work in the U.S., but they may fall short for markets abroad. A model might work fine for a restaurant chain's stores on the east coast, but not for the west coast. With localization, you can adjust for these differences and reap more benefits from your AI/ML investments, so expect to see more localization in 2022. Capitalizing on localized models can provide vital insights for businesses to meet their goals and stay at the forefront of competition.

Trend #2: There will be a much greater focus on model governance

We're seeing more business users asking about risk exposure. There's an ongoing push and pull between the two sides: those interested in regulatory compliance and those focused on increasing the bottom line. The idea of responsible AI -- bringing more transparency and visibility to the field -- will be a significant focus in the coming year for the business side of the house. Otherwise, business users risk falling into the trap of just trying to increase revenue but neglecting to follow guidelines.

Too often, once AI models leave the lab environment, there's very little visibility into what's happening to them. Questions often go unanswered, such as, "How are these models being deployed?" and "Are these models making the right decisions?" and "Are there compliance issues?" An example of how this can go wrong for a company is [Zillow's recent decision to shutter its home buying business](#) -- in part because the algorithms just didn't work.

It's not just Zillow; even the largest cloud players (including social media companies) with access to more data than anyone in the world still have models breaking down while running in production.

This is where AI model governance can play an important role. It helps restrain and guide machine learning models by bringing accountability and traceability into the mix. As more companies make use of AI, they need to ensure those investments will be worth it, so implementing model governance will be increasingly necessary.

Trend #3: Companies will need to create new job roles to oversee governance and bias

Although bias in algorithms is related to the aforementioned model governance issue, we expect it to be a big enough concern in the coming year that it almost stands alone.

Ensuring machine learning models don't make bad decisions or start developing biases towards certain sets of data has been no easy task for enterprises. Twitter's recent admission of bias in algorithms in favor of right-wing politicians and news outlets is a case in point.

To grapple with this, we expect to see more companies establishing positions such as chief AI officer, chief AI compliance officer, and other emerging titles whose entire job is to foresee the potential model failures ahead. In the next few years, as business users see the benefits of AI/ML, it's just a matter of time before they also start seeing problems -- and organizations need to get ahead of that. They need to take a more forward-thinking approach to ensure they are rooting out these biases before they become problems.

Stay Focused

AI and ML introduce operational complexities and risks that need careful attention. Gartner research shows only 53 percent of projects make it from AI prototypes to production. These projects can be expensive and time-intensive, making failure a higher-risk proposition. It's necessary to remain vigilant not only of your models but also of the trends affecting the AI space.