to retail. Businesses are using AI for tasks like predictive analytics, fraud detection, and supply chain optimization.

- Research and Innovation: Research in AI is ongoing, with scientists and engineers continuously pushing the boundaries of what AI can achieve. As technology evolves, new breakthroughs are expected in the near future.

- **Ethics in AI**

AI is a technology designed by humans to replicate, augment or replace human intelligence. These tools typically rely on large volumes of various types of data to develop insights. Poorly designed projects built on data that is faulty, inadequate or biased can have unintended, potentially harmful, consequences. Moreover, the rapid advancement in algorithmic systems means that in some cases it is not clear to us how the AI reached its conclusions, so we are essentially relying on systems we can't explain to make decisions that could affect society.

An AI ethics framework is important because it shines a light on the risks and benefits of AI tools and establishes guidelines for their responsible use. Coming up with a system of moral tenets and techniques for using AI responsibly requires the industry and interested parties to examine major social issues and ultimately the question of what makes us human.

Enterprises face several ethical challenges in their use of AI technologies.

- Explainability. When AI systems go awry, teams need to be able to trace through a complex chain of algorithmic systems and data processes to find out why. Organizations using AI should be able to explain the source data, resulting data, what their algorithms do and why they are doing that. "AI needs to have a strong degree of traceability to ensure that if harms arise, they can be traced back to the cause," said Adam Wisniewski, CTO and co-founder of AI Clearing.

- Responsibility. Society is still sorting out responsibility when decisions made by AI systems have catastrophic consequences, including loss of capital, health or life. The process of addressing accountability for the consequences of AI-based decisions should involve a range of stakeholders, including lawyers, regulators, AI developers, ethics bodies and citizens. One challenge is finding the appropriate balance in cases where an AI system may be safer than the human activity it is duplicating but still causes problems, such as weighing the merits of autonomous

driving systems that cause fatalities but far fewer than people do.

- Fairness. In data sets involving personally identifiable information, it is extremely important to ensure that there are no biases in terms of race, gender or ethnicity.
- Misuse. AI algorithms may be used for purposes other than those for which they were created. Wisniewski said these scenarios should be analyzed at the design stage to minimize the risks and introduce safety measures to reduce the adverse effects in such cases.