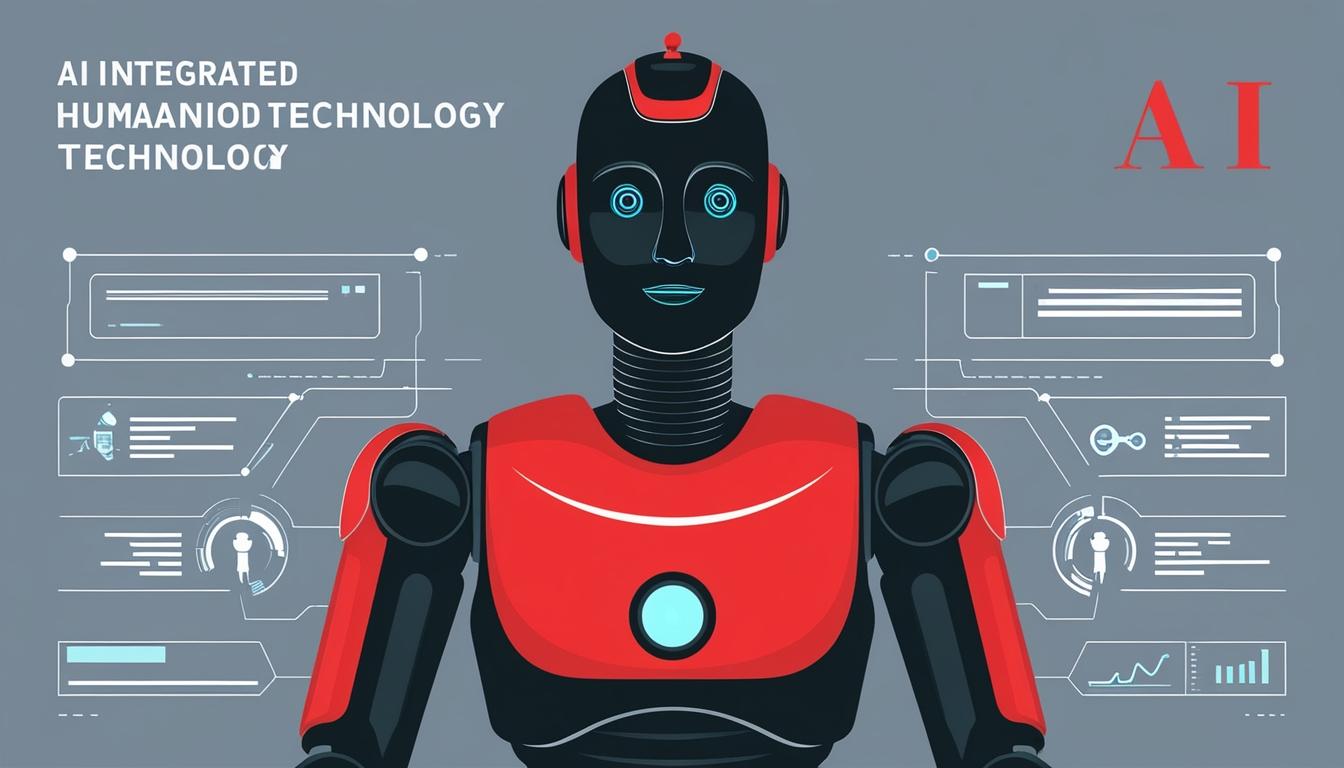
# How AI and emerging technologies will reshape business practices in the coming years



In a rapidly advancing technological landscape, Keele University's Lewis Endlar examines pivotal trends that are set to shape business practices over the next 12 months and beyond. The focus on artificial intelligence (AI) automation signifies not just a minor evolution in operational tasks but a fundamental shift in how various sectors may function.

One of the most significant anticipated advancements is the integration of AI agents. These intelligent systems, designed to complete tasks driven by human objectives, are expected to proliferate across multiple industries. This development could drastically alter the workflows within technology companies, allowing individuals without advanced programming skills to create applications and software. Companies like Tesla are leading the charge; CEO Elon Musk has indicated that the company plans to utilise its Optimus humanoid robot for various tasks by 2025, potentially upscaling to commercial sales by the following year. Moreover, research from consulting firm Gartner indicates that by 2030, up to 80% of project management responsibilities could be undertaken by AI.

In the educational sector, AI’s potential for customisation is particularly noteworthy. Traditional educational frameworks, characterised by rigid programmes, are being reconsidered in favour of personalised learning pathways. Institutions in the United States are exploring bespoke degree programmes that cater to the individual capacities and circumstances of students, such as using biometric data from smartwatches to adjust learning activities based on their wellness. Accenture further elucidates that private companies might begin to leverage customised large language models designed for specific business needs by 2025, providing competitive advantages through tailored AI applications.

Moreover, the emergence of small language models (SLMs) is expected to streamline operations by functioning efficiently on personal devices without heavy reliance on cloud computing resources, thus enhancing accessibility and responsiveness for users.

On the frontier of computing, developments in quantum technology may soon provide solutions to complex problems that challenge conventional computers. Researchers have shifted their focus towards enhancing error correction in quantum systems, paving the way for more reliable and practical applications by 2025.

The blending of physical and digital experiences through augmented reality (AR), virtual reality (VR), and mixed reality also stands to impact various fields. Companies like Apple and Meta are poised to release refined products that harness these technologies, likely transforming consumer interaction and training methodologies.

Blockchain technology, which facilitates secure and traceable data exchange, is projected to revolutionise sectors like healthcare and finance. Its capacity to track product lineage enhances supply chain transparency and security and may lead to the adoption of seamless data sharing among healthcare providers. This is particularly crucial in ensuring patient confidentiality and streamlining operations within medical environments.

Furthermore, advancements in communication technology promise to elevate connectivity standards with the anticipated rollout of 6G communication frameworks. The groundwork for standardising 6G is expected to begin in 2025, ensuring interoperability and global compatibility which are vital for maximising the technology’s potential.

Lastly, in the realm of autonomous vehicles, developments are leaning towards achieving complete autonomy. Current self-driving vehicles are largely at level 4 on the autonomy scale, but advancements are poised to propel systems closer to level 5 by 2025, enabling cars to operate without human intervention. Companies like Mercedes and Tesla are actively working on enhancing their self-driving technologies, with the latter aspiring to have its robotaxi operational before 2027.

In summary, the next few years are likely to witness transformative shifts driven by AI and associated technologies across multiple sectors, driven not only by the pursuit of efficiency but also enhanced capabilities that reshape work, leisure, and quality of life on a broad scale.

Source: [Noah Wire Services](https://www.noahwire.com)

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