

The Future of Artificial Intelligence: Development and Impact (2025-2035)

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This document consolidates expert predictions about AI development across short, medium, and long-term horizons, synthesising perspectives from multiple leading AI systems and analyses.

Next 2 Years (2025-2027): Expansion and Consolidation

AI Development Trends

- **Advanced Multimodal Models:** Significant improvements in models handling text, images, audio, and video simultaneously, with more seamless integration across modalities and improved reasoning capabilities
- **Efficiency & Deployment Focus:** Growth of smaller, efficient models (e.g., Phi, Mistral, DeepSeek) optimised for edge devices and secure enterprise deployment alongside custom AI silicon development
- **Specialised Domain Models:** Proliferation of AI systems trained specifically for industries like healthcare, law, finance, and education, improving reliability in regulated environments
- **Early Agentic Systems:** Evolution of AI frameworks that can perform tasks autonomously or semi-autonomously, though initially limited to structured tasks and simple workflows

Business and Economic Impact

- **Productivity Gains:** Significant productivity increases across software development, content creation, customer service, and data analysis, where AI can automate repetitive tasks
- **Enterprise Integration:** AI becoming deeply embedded in business software (e.g., Microsoft 365 Copilot) and workflows, with 92% of executives planning to increase AI spending
- **ROI Focus:** Companies moving beyond experimentation toward implementing AI for tangible business benefits and cost savings
- **Job Market Shifts:** Software development industry facing potential disruption, with AI tools writing a high percentage (potentially 80-90%) of code in some contexts by 2027

Governance and Society

- **Regulatory Framework:** Implementation of the first comprehensive AI regulations in major markets, focusing on transparency, fairness, and risk management
- **Trust and Governance:** Increased attention to trustworthiness, data privacy, algorithmic transparency, and model alignment
- **AI Literacy:** Growing demand for AI literacy and upskilling across industries as a fundamental workplace competency

- **Educational Adaptation:** Educational institutions shifting from “don’t use AI” to “use AI effectively,” beginning to rethink assessment methods and pedagogy

2-5 Years (2027-2030): Systems Integration and Transformation

AI Development Trends

- **Advanced Agentic AI:** More capable AI agents with memory and reasoning that work across time and context, forming networks to handle complex business processes
- **Personalised AI Companions:** AI assistants that truly “know you” - integrated across applications, work environments, and home life
- **AI-Native Applications:** New software paradigms where AI isn’t just a feature but the foundation, auto-generating interfaces and content
- **Open Source Maturity:** Open models rivaling commercial closed-source options in most domains
- **Hardware Evolution:** Next-generation AI accelerators widely deployed, with data center infrastructure evolving to handle immense power and cooling needs

Business and Economic Impact

- **Workforce Transformation:** The AI “co-pilot for everything” becoming reality, affecting knowledge work, planning, design, and coding with massive productivity gains
- **Industry Disruption:** Sectors like healthcare, logistics, and education seeing major productivity gains as AI automates tasks and enables new business models
- **Economic Reshaping:** AI’s impact on GDP becoming substantial, with significant workforce adaptation requirements
- **Job Evolution:** Job transformation rather than just displacement, with routine tasks shrinking while demand for judgment, oversight, and complex problem-solving grows

Governance and Society

- **Maturing Regulation:** Clearer standards for responsible AI development established by governments and international bodies
- **Ethical Frameworks:** Robust ethical frameworks addressing bias, fairness, transparency, and accountability becoming critical
- **Scientific Acceleration:** AI significantly accelerating scientific discovery in materials science, drug development, and other research domains
- **Societal Adaptation:** The pace of work and social engagement accelerating, with new behaviors and roles emerging as AI capabilities expand

5-10 Years (2030-2035): AI-Native Society and Reinvention

AI Development Trends

- **General-Purpose AI:** Emergence of general-purpose AI systems capable of performing a wide array of tasks across industries without retraining
- **Potential AGI/ASI:** Possible development of Artificial General Intelligence (AGI) with human-level cognitive abilities, with debates around the transition toward Artificial Superintelligence (ASI)
- **Neurosymbolic Systems:** Hybrid models with deeper reasoning and simulation capacity improving reliability and “understanding”
- **Quantum AI Synergies:** Potential fusion of AI and quantum computation to tackle problems currently intractable for classical computers
- **Advanced Human-AI Interfaces:** Progress in brain-computer interfaces and other neurotech potentially creating new paradigms for human-AI interaction

Business and Economic Impact

- **Economic Paradigm Shifts:** Fundamental changes to economic structures as AI capabilities expand across sectors, with potential new economic models emerging
- **Labor Market Transformation:** Automation extending to high-level decision-making and creative roles, prompting rethinking of employment structures
- **New Career Categories:** Emergence of roles like “AI interaction designer,” “model safety analyst,” and “autonomy ethicist” becoming standard positions
- **AI as Infrastructure:** AI underpinning critical infrastructure in medicine, engineering, urban planning, and other crucial domains

Governance and Society

- **Global AI Governance:** International treaties, audit mechanisms, and “AI constitutions” shaping development pace and safety standards
- **Philosophical Reconsideration:** Deep questions about intelligence, human uniqueness, and coexistence with autonomous systems becoming central to public discourse
- **Existential Risk Management:** Sophisticated AI safety protocols becoming paramount to mitigate risks from increasingly powerful systems
- **Creativity Redefined:** Redefinition of creativity and authorship as AI contributes meaningfully to science, art, and policymaking

Key Uncertainties and Variables

- **AGI Timeline:** Expert predictions for human-level AI range from “already here in limited contexts” to “decades away,” with significant disagreement
- **Economic Distribution:** Whether AI-driven productivity gains will be broadly shared or concentrate wealth remains a critical open question
- **Governance Effectiveness:** The ability of regulatory frameworks to keep pace with rapid technological advancement
- **Social Adaptation:** How quickly educational systems, workforce training, and social safety nets can evolve to address AI-driven change
- **Safety and Alignment:** Success in ensuring increasingly powerful AI systems remain aligned with human values and intentions

Conclusion

The next decade of AI development promises profound technological, economic, and social transformation. While specific timelines remain uncertain, the trajectory points toward increasingly capable systems that will fundamentally reshape how we work, create, and organise society. The most significant determinant of AI's impact will likely be not the technology itself, but how we collectively choose to guide its development, distribute its benefits, and mitigate its risks.

This resource was developed by Dr. Michael Borck, Curtin Business School, as a companion to the masterclass "AI-Driven Business Innovation." For more information or to discuss AI business applications for your organisation, please contact: michael.borck@curtin.edu.au

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