

# Operations Research Analysts

AI fundamentally restructuring optimization, simulation, and strategic decision-making in operations.

| EXPOSURE                               | WINDOW                                           | ADOPTION TODAY  | READING                                                                                                                                         |
|----------------------------------------|--------------------------------------------------|-----------------|-------------------------------------------------------------------------------------------------------------------------------------------------|
| <div>60</div> <div>High exposure</div> | <div>2–5 yrs</div> <div>until change lands</div> | <div>High</div> | <div>Substantial automation of routine work.</div> <div>Exposure is the share of today's work AI can plausibly take on within the window.</div> |

§ 01WHAT IS HAPPENING

## What is happening to operations research analysts

### Impact

AI tools are autonomously optimizing complex algorithms, accelerating simulations, providing prescriptive insights, and streamlining data analysis. This compels Operations Research Analysts to radically pivot towards high-level problem formulation, advanced causal inference, ethical oversight of AI, and driving unprecedented operational efficiency and strategic value.

### Risk

Radical role overhaul; pervasive automation leading to significant workflow redefinition and specialized human focus.

The Operations Research Analyst role is undergoing a profound and accelerating redefinition by AI. AI will assume command of vast routine data collection, basic modeling, and even some standard optimization algorithms. Operations Research Analysts must immediately pivot to becoming experts in leveraging AI for hyper-efficiency and enhanced strategic insights, intensely validating AI-driven recommendations for accuracy and ethical fairness, and dedicating their expertise to the irreplaceable human elements of the role: profound problem formulation, nuanced qualitative understanding of systems, and critical ethical decision-making regarding complex operational strategies and societal impact.

## Sector readiness

## Rapid &amp; Transformative Integration

The operations research and analytics sectors are aggressively integrating AI, driven by overwhelming demand for hyper-efficiency, real-time optimization, and complex decision-making in industries like logistics, manufacturing, and supply chain. AI is rapidly moving beyond pilot stages to widespread adoption for optimization, simulation, and prescriptive analytics, fundamentally altering traditional workflows.

## § 02 POSITION

## Where you stand

- i The Operations Research Analyst role is undergoing a profound and accelerating redefinition by AI, fundamentally restructuring optimization, simulation, and strategic decision support.
- ii AI will autonomously manage complex computations, accelerate simulations, and provide prescriptive insights, compelling analysts to pivot to indispensable problem formulation and profound strategic decision-making.
- iii Survival and impact will hinge on Operations Research Analysts mastering AI tools, critically validating AI outputs for accuracy and ethics, and providing irreplaceable human judgment and leadership at the heart of hyper-efficient and resilient operations.

## § 03 ACTIONS

15 POINTS

## What this means for you

Concrete changes to how the work gets done, in the order you are likely to meet them.

- 01 **AI-Driven Autonomous Optimization & Prescriptive Analytics.** Operations Research Analysts will command AI systems that autonomously solve highly complex optimization problems (e.g., global supply chain networks, production schedules, resource allocation) with unprecedented speed and precision. This compels analysts to focus on validating AI-generated solutions and refining multi-objective functions.
- 02 **AI-Accelerated Simulation & Digital Twins.** Operations Research Analysts will orchestrate AI-enhanced simulation platforms to build and run comprehensive digital twins of complex operational systems (e.g., factories, logistics networks). AI will accelerate simulations, predict system behavior, and test "what-if" scenarios in real-time, enabling radical foresight.
- 03 **Real-time Process Mining & Bottleneck Identification.** Operations Research Analysts will utilize AI-powered process mining tools that autonomously analyze vast event logs from operational systems (e.g., ERP, MES). The AI will automatically discover actual process flows, pinpoint hidden inefficiencies, and identify bottlenecks with hyper-precision, guiding immediate process improvement.

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- 04 **Predictive Analytics for Operational Performance.** Operations Research Analysts will leverage AI models that autonomously analyze historical operational data, sensor inputs, and external factors to predict demand fluctuations, equipment failures, inventory levels, and resource availability with unprecedented accuracy. This enables proactive, data-driven planning.
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- 05 **Generative AI for Model & Report Documentation.** AI will autonomously draft initial versions of complex OR model specifications, assumptions, results summaries, and executive reports. Operations Research Analysts will rigorously refine these AI-generated documents, ensuring accuracy, strategic messaging, and explainability of findings.
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- 06 **Focus on Strategic Problem Formulation & Framing.** As AI assumes command of computational and analytical tasks, the paramount value of Operations Research Analysts will be their irreplaceable human ability to precisely define complex, ambiguous business problems, identify the right metrics, and frame them for AI-driven optimization, ensuring solutions address true strategic challenges.
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- 07 **Ethical AI in Operations & Algorithmic Accountability.** Operations Research Analysts will bear profound responsibility for auditing AI optimization systems for algorithmic bias (e.g., in resource allocation, scheduling impacting human labor), ensuring data privacy, and upholding ethical standards for fair and equitable operational decisions.
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- 08 **Human-AI Teaming for Decision Orchestration.** Operations Research Analysts will operate in seamless human-AI teams, where AI autonomously generates optimal solutions and insights. The human analyst will lead the decision-making process, fine-tune AI parameters, and manage nuanced human factors, maintaining ultimate authority and judgment for implementation.
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- 09 **AI for Dynamic Resource Allocation & Scheduling.** Operations Research Analysts will deploy AI systems that autonomously manage and optimize the allocation of human labor, machinery, and other resources. AI will dynamically adjust schedules and assignments in real-time based on demand, constraints, and disruptions.
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- 10 **AI-Driven Supply Chain Resilience & Optimization.** Operations Research Analysts will leverage AI to autonomously design, optimize, and manage complex global supply chains. AI will predict disruptions, identify optimal sourcing strategies, and recommend dynamic network adjustments for hyper-resilience and cost-effectiveness.
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- 11 **Continuous Learning & Advanced Quantitative AI Literacy.** The exponential pace of AI integration in OR demands that Operations Research Analysts commit to continuous, aggressive learning of new AI-powered tools, advanced optimization algorithms (e.g., quantum optimization), and their profound capabilities and ethical implications.
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- 12 **Specialization in AI-Powered OR Solutions.** The field will see a rise in Operations Research Analysts specializing in designing, implementing, and managing AI-driven optimization, simulation, or prescriptive analytics platforms, acting as primary points of contact for digital transformation initiatives within operations.
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- 13 **AI for Sensitivity Analysis & Explainability (XAI).** AI tools will autonomously perform complex sensitivity analyses on optimization models, identifying key drivers and constraints. XAI tools will help explain AI-generated optimal solutions, making them more interpretable for human decision-makers.
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- 14 **Leadership in Operational Digital Transformation.** Operations Research Analysts in leadership roles will play a crucial role in guiding organizations through the pervasive adoption of AI, advocating for strategic OR solutions, and fundamentally reshaping the future of industrial and business operations.
- 15 **Strategic Stakeholder Communication & Persuasion.** As AI processes data, the human skill of weaving complex analytical findings and AI-generated solutions into compelling business narratives becomes paramount. Operations Research Analysts will focus on "prescriptive storytelling" to influence decisions and drive radical operational change.

## What is pushing this change

- 01 **Explosive Growth of Operational & IoT Data.** Vast amounts of data from sensors, machines, supply chains, and business processes provide rich input for AI models.
- 02 **Revolutionary Advancements in AI/ML (Reinforcement Learning, Generative AI for Optimization, Process Mining).** Breakthroughs in AI fields enable autonomous optimization, process discovery, and predictive modeling for complex operational challenges.
- 03 **Urgent Demand for Real-time Decision-Making & Agility.** Businesses require instant, data-driven decisions to adapt to dynamic markets and optimize operations in real-time.
- 04 **Unprecedented Complexity of Global Operations & Supply Chains.** Managing intricate global supply chains, manufacturing networks, and service operations demands AI for synthesis and optimization.
- 05 **Relentless Pressure for Hyper-Efficiency & Cost Optimization.** AI-driven optimization and automation offer radical reductions in operational costs and resource utilization.
- 06 **Need for Enhanced Resilience & Risk Management.** AI's ability to predict and mitigate disruptions is critical for building resilient supply chains and operations.
- 07 **Digital Transformation Initiatives (Industry 4.0).** AI is the central pillar of Industry 4.0, enabling interconnected and intelligent operations across the enterprise.
- 08 **Shortage of Specialized OR Talent.** The demand for OR analysts who can bridge advanced analytics with business strategy often outstrips supply, driving AI augmentation.
- 09 **Global Competition for Operational Excellence.** Companies fiercely compete on operational efficiency, delivery speed, and cost, compelling AI adoption for optimization.
- 10 **Ethical Scrutiny of Automated Decisions.** Concerns about fairness, bias, and transparency in AI algorithms that make decisions impacting resources or people.

## Impact by sector

The headline figure is an average. Where you work changes the picture.

|                                         |                                                                                                                                                          |
|-----------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|
| Supply Chain Operations Research        | AI for autonomous supply chain network design, demand forecasting, and inventory optimization. Focus on end-to-end resilience and cost.                  |
| Logistics & Transportation Optimization | AI for autonomous fleet routing, last-mile delivery optimization, and warehouse automation. Focus on speed, cost, and capacity.                          |
| Manufacturing Systems Optimization      | AI for autonomous production scheduling, shop floor control, and predictive maintenance for machines. Focus on throughput and quality.                   |
| Healthcare Operations Research          | AI for optimizing patient flow, resource allocation (beds, staff), and appointment scheduling in hospitals. Focus on efficiency and patient experience.  |
| Financial Operations Research           | AI for optimizing trading strategies, risk management, and back-office process automation in financial institutions. Focus on efficiency and compliance. |

## Skills to build

The skills that keep the human part of this work valuable as the routine part is automated.

- 01 Advanced Optimization & AI/ML Modeling.** Profound understanding of optimization algorithms (linear, non-linear, stochastic) and ability to apply AI/ML to solve complex problems.
- 02 Problem Formulation & Strategic Thinking.** The irreplaceable human ability to precisely define complex, ambiguous business problems, identify the right metrics, and frame them for AI-driven solutions.
- 03 Data Storytelling & Prescriptive Communication.** Translating complex analytical findings and AI-generated optimal solutions into clear, compelling, and actionable narratives for diverse stakeholders.
- 04 Ethical AI & Explainability (XAI).** Understanding potential biases in AI optimization algorithms, ensuring transparent and fair decision-making, and explaining complex AI outputs.
- 05 Simulation & Digital Twin Expertise.** Expertise in building and utilizing AI-enhanced simulation models and digital twins to predict system behavior and evaluate optimal strategies.
- 06 Data Analysis & Interpretation.** Ability to collect, clean, analyze, and interpret vast volumes of operational data (including AI-generated insights) to derive actionable intelligence.

- 07 **Programming & Software Proficiency.** Proficiency in optimization software, statistical programming languages (e.g., Python, R), and specialized OR/AI tools.
- 08 **Interdisciplinary Collaboration.** Effectively working with engineers, data scientists, business leaders, and operators to implement and refine AI-powered OR solutions.

§ 07INSTRUMENTS

12ENTRIES

## Tools in use

### KINDS OF TOOL WORTH KNOWING

- 01 **AI-Powered Optimization Solvers (e.g., Gurobi, CPLEX with AI).** Software libraries and platforms that leverage AI/ML algorithms to solve complex mathematical optimization problems with unprecedented speed and scale.
- 02 **AI-Enhanced Simulation Platforms.** Simulation software that integrates AI/ML to accelerate model building, improve accuracy, and enable real-time scenario analysis for operational systems.
- 03 **Process Mining Tools (AI-driven).** Platforms that use AI to automatically discover, visualize, and analyze actual business processes from IT system logs, identifying inefficiencies and bottlenecks.
- 04 **Prescriptive Analytics Platforms.** Software platforms that provide AI-driven recommendations for optimal actions based on predictive models and business objectives.
- 05 **AI for Supply Chain Control Towers.** Integrated platforms that use AI to provide end-to-end visibility, real-time insights, and predictive/prescriptive analytics for global supply chains.
- 06 **Generative AI for OR Reports.** Large Language Models (LLMs) used to autonomously draft initial versions of OR model documentation, results summaries, and executive reports.

### NAMED TOOLS ALREADY IN USE

- Gurobi Optimization**

VISIT

A leading provider of mathematical optimization solvers, continuously integrating AI/ML for enhanced performance and solution capabilities.
- AnyLogic**

VISIT

A versatile simulation modeling software that supports discrete event, agent-based, and system dynamics modeling, with strong AI integration capabilities.
- Celonis**

VISIT

A prominent process mining platform that uses AI to analyze process data from IT systems and identify inefficiencies and automation opportunities.
- Blue Yonder (Luminate Platform)**

VISIT

A major supply chain software provider that leverages AI/ML for demand forecasting, inventory optimization, and logistics planning, providing prescriptive insights.

o9 Solutions

VISIT

A leading provider of integrated business planning and supply chain solutions, with AI as a core component for prescriptive analytics and decision support.

ChatGPT / Claude / Google Gemini (for drafting)

VISIT

Generative AI models that can autonomously draft various analytical reports, model documentation, and executive summaries.

§ 08 EXAMPLES

5 EXAMPLES

In practice

Ways people in this role are already using AI, and what they get from it.

Optimize Production Scheduling

EXAMPLE 1

HOW

Operations Research Analysts will deploy an AI-powered Advanced Planning & Scheduling (APS) system. The AI will autonomously generate optimal production schedules, dynamically adjusting to real-time demand, machine availability, and material constraints to maximize throughput and minimize costs.

GAIN

Radically improves production efficiency, maximizes output, and reduces operational costs by eliminating bottlenecks and optimizing resource utilization.

Simulate New Facility Layouts

EXAMPLE 2

HOW

Operations Research Analysts will utilize an AI-enhanced simulation platform. By inputting proposed changes to a warehouse or factory layout, the AI will autonomously simulate material flow and worker movement, identifying bottlenecks and predicting the impact on efficiency before physical construction.

GAIN

Provides unparalleled foresight into operational changes, identifies hidden inefficiencies, and supports data-driven design decisions for new facilities or expansions.

Predict Supply Chain Disruptions

EXAMPLE 3

HOW

Operations Research Analysts will leverage an AI model that autonomously analyzes global news, weather patterns, geopolitical events, and supplier performance data. The AI will predict potential supply chain disruptions (e.g., port delays, raw material shortages) weeks in advance, suggesting proactive mitigation strategies.

GAIN

Enhances supply chain resilience, enables proactive risk mitigation, and minimizes operational impact from unforeseen disruptions, leading to greater business continuity.

|                                                                      |      |                                                                                                                                                                                                                                                                                                                                 |
|----------------------------------------------------------------------|------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <div>Generate Optimal Resource Staffing</div> <div>EXAMPLE 4</div>   | HOW  | Operations Research Analysts will implement an AI system that autonomously generates optimal staffing schedules for a call center or retail store. The AI considers predicted call volumes/customer traffic, employee skills, and labor laws to maximize service levels and minimize labor costs.                               |
|                                                                      | GAIN | Optimizes labor costs, maximizes service levels, and improves employee satisfaction by creating fair and efficient schedules.                                                                                                                                                                                                   |
| <div>Perform Prescriptive Vehicle Routing</div> <div>EXAMPLE 5</div> | HOW  | Operations Research Analysts will deploy an AI-powered fleet routing system. The AI will autonomously calculate the most efficient routes for delivery vehicles, dynamically adjusting for real-time traffic and delivery priorities, and prescribing optimal stop sequences and vehicle assignments to minimize fuel and time. |
|                                                                      | GAIN | Achieves unprecedented efficiency in logistics, radically reduces fuel consumption, minimizes travel time, and improves on-time delivery performance.                                                                                                                                                                           |

§ 09    CONTEXT

## How this role compares

Three neighbouring roles chosen to show the direction of travel.

|                                                                                                                                                          |               |                                                                                                                                                                                                                                    |
|----------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <div>Data Scientists (Basic reporting, simple models) / Data Entry Clerks (Operational data)</div> <div>MORE EXPOSED</div>                               | AI IMPACT     | Catastrophic (AI can autonomously generate routine reports; AI can autonomously capture and process operational data.)                                                                                                             |
|                                                                                                                                                          | WORK MOVES TO | Immediate need for radical re-skilling into AI oversight, exception handling for operational data, or specialization in advanced data quality.                                                                                     |
| <div>AI/ML Engineers (Optimization/Reinforcement Learning) / Applied AI Research Scientists</div> <div>DIFFERENT SKILLS, GROWING</div>                   | AI IMPACT     | Foundational (They design and build the AI algorithms and systems that power advanced OR solutions.)                                                                                                                               |
|                                                                                                                                                          | WORK MOVES TO | Deep expertise in advanced AI/ML algorithms, reinforcement learning, optimization theory, and software engineering for large-scale systems.                                                                                        |
| <div>Senior Operations Executives (Strategic oversight) / General Managers (High-level business leadership)</div> <div>COMPLEMENTARY, LESS EXPOSED</div> | AI IMPACT     | Low-Moderate Augmentation (AI provides data for executives; AI assists in business unit performance for managers), but core strategic vision, leadership, and ultimate accountability for enterprise performance remain paramount. |
|                                                                                                                                                          | WORK MOVES TO | Overall operational strategy, high-level resource allocation, and ultimate accountability for business unit performance (Executives); Strategic business unit leadership, P&L management, and team motivation (General Managers).  |

## Closing judgement

For Operations Research Analysts, AI is not merely a tool but a radical force of transformation that will fundamentally redefine operational excellence. It will autonomously handle complex computations, amplify predictive insights, and deliver prescriptive solutions, compelling analysts to pivot to indispensable strategic problem formulation, profound human judgment, and ethical oversight. The future Operations Research Analyst will be a visionary orchestrator of human-AI collaboration, providing irreplaceable leadership at the heart of hyper-efficient and resilient global operations.

## Evidence and revisions

What the exposure figure rests on, what changed when it was last revised, and the published work cited for this role.

SCORE

60 (held)

WINDOW

2-5 years (unchanged)

The 4 October 2026 review held the score.

Microsoft's AI applicability score for the matching occupation is 0.31, in the top quarter of 785 US occupations; Anthropic's observed exposure (the share of the occupation's tasks already being done with Claude) is 0.43, which is heavy by the standards of the 756 occupations measured; the US Bureau of Labor Statistics places it in the 'very high' AI-exposure tier; BLS projects employment to grow 11.9% over 2025–35. Taken together this is consistent with our previous figure of 60, which we have held.

MEASURES BEHIND THE SCORE

**US Bureau of Labor Statistics** · *Employment Projections 2025–35 and AI Exposure Categories* (27 August 2026)  
AI-exposure tier: Very high. Projected employment change 2025–35: +11.9%. Matched to Operations research analysts.

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**Microsoft Research** · *Working with AI: Measuring the Applicability of Generative AI to Occupations* (10 July 2025)  
AI applicability score 0.31 (percentile 89 of 785 occupations) for SOC 15-2031.

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**Anthropic** · *Anthropic Economic Index report: Cadences* (26 June 2026)

Observed exposure 0.43 for SOC 15-2031 (percentile 96 of 756 occupations).

PUBLISHER PDF

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**UK Department for Science, Innovation and Technology** · *Assessment of AI capabilities and the impact on the UK labour market* (28 January 2026)

UK context: around 70% of UK workers are in occupations with tasks AI could perform or enhance, above the US average; a one-standard-deviation rise in exposure was associated with a 3.9% fall in UK job postings.

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<https://www.careerguard.ai/sources>

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## § 12 APPENDIX

# Method and sources

Each report was written from a large body of published research and then, in October 2026, re-scored against occupation-level evidence: the US Bureau of Labor Statistics AI-exposure classification and 2025–35 projections, Microsoft Research's AI applicability scores and Anthropic's observed-exposure data, cross-checked against the reports listed in the Evidence section above. The organisations and publications below are the standing literature behind the narrative sections. Every source, with dates, licences and archived copies where we are permitted to hold them, is catalogued in the research library.

Scores are revised by blending the previous editorial figure (60%) with a composite of the three occupation-level measures (40%), capped at fifteen points per revision and rounded to the nearest five. The window shifts one notch when a score moves ten points or more. Hand adjustments are recorded with their reason in the revision log.

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## I GLOBAL AND MACROECONOMIC IMPACT OF AI ON WORK

### World Economic Forum

*The Future of Jobs Report series* — Employer survey of expected job growth and decline, skill shifts and technology adoption (2020, 2023 and 2025 editions); *Artificial Intelligence and the Future of Entry-Level Work* (2026).

*AI governance and transformation reports* — Frameworks on ethical AI, talent strategy and industry transformation.

### McKinsey Global Institute

*AI, Automation and the Future of Work series* — Research quantifying automation potential by task, sector and demographic, from "Jobs Lost, Jobs Gained" to "Agents, robots, and us" (2025).

*Industry-specific reports* — Financial services, healthcare, manufacturing and others.

### PwC

*Global AI Jobs Barometer* — Annual analysis of job postings and productivity by AI exposure (2024–2026 editions).

*Upskilling Hopes and Fears survey* — Employee perceptions and readiness.

### Microsoft Research and Anthropic

*Working with AI* (2025); *Anthropic Economic Index* (2025–2026) — Occupation-level usage data from Copilot and Claude conversations, the two observed-usage measures behind the 2026 revision.

### Stanford Digital Economy Lab and Stanford HAI

*Canaries in the Coal Mine?* (2025–2026); *AI Index Report (annual)* — Payroll evidence on early-career employment in exposed occupations; annual measurement of AI capability, investment and adoption.

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**Deloitte**

*Human Capital Trends series* — Workforce, talent and HR technology trends.

*Tech Trends series* — Emerging technologies and their business implications.

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**Accenture**

*Technology Vision series* — Forward-looking analysis of emerging technology, with emphasis on AI.

*Fjord Trends* — Design, innovation and human experience in a digital world.

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**Boston Consulting Group**

*AI/ML insights and industry solutions* — "The AI Revolution in the Workplace" and related research.

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**EY**

*AI and workforce reports* — Adoption, talent strategy and ethics.

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**IBM Institute for Business Value**

*AI and automation studies* — Business models, workforce evolution and leadership.

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**OECD**

*AI Policy Observatory* — International data and policy on AI, labour markets and skills.

*Employment Outlook* — Labour-market trends including technological impact (2023–2026 editions).

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**International Labour Organization**

*Generative AI and Jobs: A Refined Global Index of Occupational Exposure (2025)* — Task-level exposure gradients for every ISCO occupation; successor to the 2023 global index.

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**International Monetary Fund**

*Staff Discussion Notes on AI and work (2024, 2026)* — Complementarity framing: where AI augments and where it substitutes.

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**UK Department for Science, Innovation and Technology**

*Assessment of AI capabilities and the impact on the UK labour market (2026)* — UK occupational exposure and job-posting evidence.

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**Brookings Institution**

*AI and automation research* — Economic and social implications, displacement and skills.

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**Yale Budget Lab and Goldman Sachs Research**

*Tracking the Impact of AI on the Labor Market; AI and the US labour market (2026)* — Aggregate labour-market monitoring; macro displacement estimates.

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**Oxford University (Oxford Martin School)**

*The Future of Employment* — Frey & Osborne and subsequent research on susceptibility to automation.

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**MIT Technology Review**

*AI & Work* — Reporting on AI research and its implications for industries and jobs.

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**Gartner**

*Hype Cycle for Artificial Intelligence* — Maturity and adoption of AI technologies.

*Future of Work reports* — Workplace models and talent strategy.

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**U.S. Bureau of Labor Statistics**

*Employment Projections 2025–35; AI Exposure Categories; Occupational Outlook Handbook* — Ten-year employment projections and, from the 2025 cycle, an AI-exposure tier for every detailed occupation.

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**Indeed Hiring Lab**

*AI at Work Report (2025) and posting-market updates* — Skill-level transformation estimates and job-posting trends by occupation.

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**II CORE AI AND MACHINE-LEARNING RESEARCH**

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**OpenAI**

*Research papers, blog and API documentation* — Large language models, generative AI, safety and societal impact.

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**Google DeepMind**

*Research papers and blog* — Reinforcement learning, AI for science, AGI and ethics.

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**Meta AI**

*Research papers and blog* — Large language models, computer vision, AI for social good.

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**Hugging Face**

*Transformers library and model hub* — Open-source state-of-the-art NLP models.

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**TensorFlow and PyTorch**

*Documentation and community forums* — Core frameworks illustrating practical capability.

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**arXiv**

*cs.AI, cs.LG, cs.CV, cs.CL* — Pre-print research.

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**NeurIPS and ICML**

*Conference proceedings* — Top-tier academic research.

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**ACM and IEEE**

*Journals and proceedings* — ACM Computing Surveys; IEEE Transactions on AI.

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**Kaggle**

*Datasets and competition solutions* — Applied machine learning on real-world problems.

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**The Alan Turing Institute**

*Research and reports* — Responsible and applied AI.

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**III ETHICAL AND RESPONSIBLE AI DEPLOYMENT**

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**NIST**

*AI Risk Management Framework* — Voluntary framework for managing AI risk.

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**European Commission**

*AI Act* — Risk-tiered legal framework for AI.

*Ethics Guidelines for Trustworthy AI* — Principles for responsible development.

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**Partnership on AI**

*Research and best practice* — Responsible AI development.

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**AI Now Institute**

*Annual reports* — Social implications: power, inequality, rights.

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**ACM FAccT**

*Proceedings* — Fairness, accountability and transparency.

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**Data & Society**

*Publications* — Social implications of data-centric technology.

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**WIPO**

*Conversation on IP and AI* — Intellectual-property implications of AI.

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**IEEE Global Initiative on Ethics of AI/IS**

*Ethically Aligned Design* — Recommendations for ethical AI design.

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**Center for AI and Digital Policy**

*Policy briefs* — Accountable AI policy.