
Artificial Intelligence

WHAT IS IT AND HOW CAN IT
HELP YOUR BUSINESS



What Is Artificial Intelligence?

Artificial Intelligence (AI) is the branch of computer science that focuses on creating systems or machines capable of performing tasks that normally require human intelligence.

- These tasks include:
 - **Learning** from data (machine learning)
 - **Reasoning** and problem-solving
 - **Understanding language** (natural language processing)
 - **Recognizing patterns** (such as images or speech)
 - **Making decisions**
- In simple terms:
- Artificial Intelligence is the ability of a machine to mimic human cognitive functions like learning, thinking, and problem-solving.

How much should you depend on AI being correct in its reasoning?

You should treat AI as a powerful assistant — not an infallible authority.

- Short Answer
- Depend on AI for:
 - Generating ideas
 - Drafting content
 - Explaining concepts
 - Summarizing information
 - Assisting with coding

But do not fully rely on it for:

- Critical decisions (medical, legal, financial)
- High-stakes professional judgments
- Fact-sensitive or time-sensitive information without verification
- Complex reasoning that requires deep domain expertise

Why You Should Be Cautious

AI systems:

- Predict responses based on patterns in data — they do not truly understand information.
- Can produce confident but incorrect answers ("hallucinations").
- May miss context or subtle constraints.
- Do not have real-world awareness unless updated with verified sources.

A Practical Rule of Thumb

- Think of AI like:
- A very knowledgeable intern — fast, helpful, but needs supervision.
- A calculator for language — excellent at structure and patterns, but not perfect in judgment.

Recommended Level of Trust

- Brainstorming Ideas
 - Learning Basic Concepts
 - Drafting Emails / Reports
 - Academic Research Citations
 - Medical / Legal Advice
 - Strategic Business Decisions
- High
 - High
 - Moderate – High (Review First)
 - Moderate (Verify Sources)
 - Low (Consult a Professional)
 - Low – Moderate (Use as Input, not Final Authority)

Best Practice

- Use AI to:
 - Accelerate thinking
 - Check alternatives
 - Spot gaps
 - Generate drafts
- But always apply:
 - Critical thinking
 - Independent verification
 - **Domain expertise**

Why AI sometimes sounds correct even when it's wrong

- Simple Analogy
- AI is like:
 - An extremely well-read student who has memorized millions of books but never actually performed experiments or experienced reality.
 - It can talk about things convincingly — but that doesn't guarantee accuracy.

The Bottom Line

- AI sounds correct when wrong because it is optimized for:
 - Probability of language
 - Not verification of truth
- That's why critical thinking and verification remain essential.



Top AI Tools by Popularity

- **ChatGPT:** With approximately 5.6 billion monthly visits, ChatGPT remains the most widely used AI tool, known for its conversational capabilities and versatility in various applications.
- **Canva:** This graphic design platform integrates AI-powered features for image editing and design, attracting around 887 million monthly visits.
- **Gemini:** A newer entrant in the AI space, Gemini is gaining traction for its innovative features and user-friendly interface, contributing to its growing popularity.
- **DeepSeek:** This tool saw a significant increase in traffic, reaching 268 million visits after the release of its reasoning model, showcasing its effectiveness in AI-driven tasks.
- **Perplexity:** Another notable AI tool that is gaining popularity, particularly for its unique features and user engagement.

What is ChatGPT Strongest in Performance?

- Writing and Editing
 - Drafting emails, proposals, reports
 - Rewriting for tone (formal, persuasive, concise, friendly)
 - Summarizing long documents
 - Improving clarity and structure
 - Generating creative writing (stories, scripts, poetry)
 - Resume and LinkedIn optimization
- 👉 Especially good when you provide context and a clear goal.

What is ChatGPT Strongest in Performance?

- Brainstorming & Idea Generation
 - Business ideas
 - Marketing campaigns
 - Product names
 - Content calendars
 - Meeting agendas
 - Problem-solving approaches
- It won't replace strategic judgment, but it accelerates ideation.

What is ChatGPT Strongest in Performance?

- Exploring & Teaching
 - Explaining technical concepts in simple terms
 - Step-by-step tutorials
 - Study guides and practice questions
 - Comparing options (pros/cons)
 - Translating jargon into plain English
- Works well for business, tech, finance, science, coding, etc.

What is ChatGPT Strongest in Performance?

- Research Summarization
 - Summarizing articles or reports
 - Extracting key points
 - Turning notes into structured insights
 - Creating executive summaries
- Especially powerful when paired with current data tools.

What is ChatGPT Strongest in Performance?

- **Decision Support**
 - Pros/cons lists
 - Risk analysis
 - Framework-based thinking (SWOT, 80/20, etc.)
 - Comparing vendors or tools
 - Breaking big decisions into structured components
- It helps structure thinking rather than “decide” for you.

What is ChatGPT Strongest in Performance?

- Workflow & Productivity Design
 - Designing processes
 - SOP drafting
 - Templates
 - Automation ideas
 - Meeting frameworks
 - Time management systems

Electrical Contractor or Electrician Applications

- Estimating & Bidding
 - Analyze blueprints and automatically count fixtures, panels, receptacles, etc.
 - Generate material takeoffs
 - Compare supplier pricing
 - Suggest labor hour estimates based on past jobs
 - Identify scope gaps in bid documents
- For contractors, even a 1–2% improvement in bid accuracy can mean major profit difference.

Electrical Contractor or Electrician Applications

- Proposal & Documentation Automation
 - Professional bid proposals
 - Change order requests
 - RFIs (Requests for Information)
 - Daily reports
 - Jobsite summaries
 - Scope clarifications

Instead of writing from scratch, you can dictate notes and have AI turn them into clean documentation. Saves hours per week.

Electrical Contractor or Electrician Applications

- Troubleshooting & Diagnostics
 - Helping diagnose recurring issues
 - Walking through troubleshooting logic step-by-step
 - Interpreting error codes from VFDs, PLCs, or smart panels
 - Providing code references (NEC guidance)
- It doesn't replace experience — but it speeds up reasoning.

Electrical Contractor or Electrician Applications

- **Safety & Compliance**
 - Analyze jobsite photos for PPE compliance
 - Generate Job Hazard Analyses (JHAs)
 - Create toolbox talk content
 - Track OSHA documentation
 - Flag potential code violations in designs

For larger contractors, this reduces liability risk.

Electrical Contractor or Electrician Applications

- Schedule & Workforce Optimization
 - Optimize crew scheduling
 - Predict labor shortages
 - Analyze productivity trends
 - Forecast project delays
 - Match technicians to job complexity

This is especially valuable for contractors managing multiple crews.

Electrical Contractor or Electrician Applications

- Inventory & Material Management
 - Track material usage patterns
 - Predict when to reorder
 - Reduce overstock and waste
 - Flag unusual material loss

For companies doing repetitive install work, this tightens margins.

Electrical Contractor or Electrician Applications

- Training & Knowledge Retention
 - Capture SOPs
 - Convert tribal knowledge into documentation
 - Create interactive training modules
 - Answer apprentice questions instantly

It becomes a digital knowledge base.

Electrical Contractor or Electrician Applications

- Customer Communication & Sales
 - Draft service explanations in plain English
 - Create maintenance recommendations
 - Generate follow-up emails
 - Write maintenance agreements
 - Build website and marketing content

Helps smaller contractors look larger and more professional.

Electrical Contractor or Electrician Applications

- Smart Building & IoT Integration
 - Energy optimization
 - Load balancing
 - Predictive maintenance
 - Power usage analytics
 - EV charger management
 - Solar + battery optimization

Electrical contractors who understand AI + energy systems gain competitive advantage.

Electrical Contractor or Electrician Applications

- Business Strategy & Margin Protection
 - Profitability by job type
 - Change order patterns
 - Warranty call trends
 - High-margin vs low-margin work
 - Customer lifetime value

Most contractors don't deeply analyze this data — AI makes it easier.

Electrical Contractor or Electrician Applications

- Solo / Small Shop:
 - Proposal writing
 - Service report automation
 - Troubleshooting support
 - Marketing content
 - Customer communication
- Mid to Large Contractor:
 - Blueprint takeoff automation
 - Crew optimization
 - Data-driven bidding
 - Safety compliance tracking
 - Predictive maintenance services

Searching on AI Platforms

- AI search is gaining traction, but it isn't replacing Google: Survey (Search Engine Land)
 - 71.5% reported using AI tools for search; 14% use them daily.
 - 79.8% prefer Google or Microsoft Bing for general information searches.
 - 20.2% have changed their primary search platform within the last year.

Searching on AI Platforms

- **AI search by generation.** All generations are adopting AI search. However, usage varies:
 - **Gen Z (18-26):** 82% have used AI search tools at least occasionally, and they favor social media for product discovery.
 - **Millennials (27-42):** Balance traditional search and AI, with strong adoption for professional and educational queries.
 - **Gen X (43-58):** 65% use AI occasionally but strongly prefer traditional search engines.
 - **Baby Boomers (59-76):** 45% used AI tools, but they remain the most loyal to traditional search.