

Putting AI to Work

4

Choosing the Right Tools

Learning Objectives

- Evaluate AI tools by comparing purpose, features, pricing, and usability to select the best fit for specific goals
- Design and construct custom AI models using tools like Custom GPTs, Gems, and Copilot, and discuss the ethical and practical implications of customization
- Integrate AI tools into real-world workflows by demonstrating how to use APIs, automation platforms, browser extensions, and file-based inputs
- Identify and compare leading AI platforms based on their capabilities with text, image, video, and audio content

Module 4.1: Key Considerations

- Choose tools based on what works for you, not what's most advanced or popular.
- Nine key evaluation criteria:
 - Purpose: Define your goal before looking at features or pricing.
 - Functionality: What outputs does the tool support? Does it integrate with existing workflows?
 - Usability: Consider your team's comfort with technology and learning curves.
 - Cost: Free tools have limitations; paid versions offer more power, privacy, and/or flexibility.
 - Support: Regular updates indicate reliability and security.
 - Privacy and security: Understand how your data is stored, used, or shared.
 - Customizability: Can you define tone, voice, or workflow to match your needs?
 - Output control: Can you set parameters like tone, length, and creativity?

Module 4.1: Ethics in Action

- Avoid "AI-for-the-sake-of-AI" decisions; deploy it only when it genuinely improves workflows.
- Be cautious of "free" tools that monetize your data; free isn't always fair.
- Choose accessible tools that support screen readers or keyboard navigation.
- Look for transparency, consent features, and clear privacy policies.
- Controlled outputs reduce the risk of misleading, offensive, or biased content.
- Open tools build trust; avoid "black boxes" that hide decision making methods.

Module 4.1: Techie Dive

- Some tools are optimized for specific formats (text vs. image vs. data).
- Power users should check for API access, batch processing, or fine-tuning options.
- Check for hidden costs like token limits, credit usage, or capped features.
- Look for changelogs, user forums, and active developer community signs.
- Check whether tools use your data to train models or share it with third parties.
- Look for prompt templates, branding controls, or API connections.
- Look for settings like temperature, top-p sampling, and token limits.

Module 4.1: Business Lens

- Align tools with tasks; don't overspend on general-purpose tools if niche solutions work better.
- Look for tools that scale with business or team needs.
- Easy-to-learn tools reduce training costs and speed up adoption.
- Calculate the total cost of ownership including training and staff time.
- Long-term viability depends on developer commitment to supporting the tool.
- Ensure the tool complies with laws like GDPR or HIPAA.
- Customization helps align tools with brand tone and increases productivity.
- Precision output is key when writing for different audiences or platforms.

Module 4.2: Designing and Creating Custom Models

- Custom models (depending on platform):
 - Custom GPTs
 - Gems
 - Bots
 - Assistants
- These allow users to personalize AI behavior including its knowledge, tone, capabilities, and personality.
- Custom models matter, as they can complete specific tasks like creating FAQs, scheduling, order taking.
- Implementing a custom model is a five-step process:
 - Choose base model
 - Define instructions
 - Upload files/knowledge
 - Customize appearance
 - Test and deploy
- Platform options:
 - OpenAI Custom GPTs
 - Google Gemini Gems
 - Microsoft Copilot agents
- Language conditioning is the shaping of behavior through context in prompts without actual model training.

Module 4.2: Ethics in Action

- Just because you can make a custom model doesn't mean it's ready for public use.
 - Test it for accuracy: Is it giving correct information?
 - Test it for bias: Are its outputs unintentionally offensive or one sided?
 - Test it for misinformation: Does it sound confident even when wrong (hallucinations)?
- If deploying it publicly, you're responsible for what the model says.
- Consider the possible consequences in high-stakes situations in the fields of healthcare, law, or finance.

Module 4.2: Techie Dive

- Behind every custom model is a system message (hidden instruction for behavior).
- System messages transform general chatbots into specialized assistants.
- Example: "You are an AI music teacher. Explain this using beginner-friendly terms."
- Some platforms allow for the uploading of files or linking to knowledge bases for context.
- These aren't permanent training updates; they guide answers during sessions.
- Language conditioning shapes responses by providing context without model retraining.

Module 4.2: Business Lens

- Small businesses love custom models, as they reduce time spent answering repetitive questions.
- They give the appearance of scale and operate 24/7 without the need for hiring extra staff.
- Examples:
 - Fitness coach creates a workout designer
 - Recruiter builds a résumé sorter
- Custom models help small teams act like big ones, with lower costs and better consistency.
- They can handle customer service, lead qualification, appointment scheduling, and content generation.
- It's important to consider the time saved vs. the setup effort and ongoing maintenance required.

Module 4.3: Connecting Tools to Workflows

- Move beyond isolated chat interactions to integrated AI working in the background.
- A workflow is a series of steps needed to complete a task (for example, email responses, order tracking, scheduling).
- Five common integration methods:
 - Built-in AI features
 - Device-based AI
 - Browser extensions
 - File uploads
 - Automation platforms
- Built-in features: Outlook suggests calendar events from emails.
- Device-based AI: Apple Intelligence summarizes messages or suggests replies.
- Browser extensions: Grammarly or ChatGPT helps edit writing in Google Docs.
- File uploads: Upload a transcript to summarize a class lecture.
- Automation platforms: Zapier or Make connect apps without coding.
- APIs allow software tools to communicate; no-code tools use triggers and actions.

Module 4.3: Ethics in Action

- Automation isn't always beneficial for private data (client names, medical details).
- Always check:
 - Where your data is stored
 - Who can access it
 - Whether you have permission to use the data in this way
- When in doubt, anonymize data before connecting to AI tools.
- Consider whether an AI tool saves prompts or uses them to improve its model.
- Maintain regulatory compliance (GDPR, HIPAA, FERPA) when automating.
- Being transparent with stakeholders about AI usage builds trust.

Module 4.3: Techie Dive

- Most AI integrations rely on APIs for software communication.
- Zapier and Make have prebuilt triggers and actions, so no coding is required.
 - Example: trigger (new form submission) → action (summarize with ChatGPT and email result).
 - This Turns AI into quiet teammate working behind the scenes.
- Advanced integrations involve webhooks, JSON formats, and API authentication.
- Rate limits, token costs, and API quotas affect automation scalability.

Module 4.3: Business Lens

- For small businesses, time is money; AI integration means faster lead response times.
- Benefits of connecting an AI to everyday systems:
 - Stay organized.
 - Automate boring tasks like formatting or summaries.
- Examples: music instructor creates practice summaries, realtor generates prep checklists.
- Automation creates competitive advantages by freeing up time for high-value activities.
- Scalability: Automated workflows handle increased volume without proportional effort.
- Risk: Overautomation creates dependencies and reduces adaptability.

Module 4.4: Available Tools

Each AI tool brings unique capabilities; no single tool does everything best.

- OpenAI ChatGPT
 - This is best for conversational tasks, creative writing, brainstorming, and coding help.
 - Features include custom GPTs, plugins, and file upload, but it may hallucinate facts.
- Google Gemini
 - This is best for multimodal tasks, Google Workspace integrations, and building Gems.
 - Features include the ability to accept text, image, and PDF inputs, but the interface can overwhelm beginners.
- Anthropic Claude
 - This is best for long-form content; document summarization; and safe, transparent output.
 - Features include the ability to handle extremely large inputs (entire books); limited plugin support.

Module 4.4: Available Tools (cont.)

- Microsoft Copilot
 - This is best for Office productivity, document drafting, and enterprise automation.
 - Features include that it's embedded in Microsoft suite, but it requires enterprise or paid plans.
- Canva Magic Studio
 - This is best for visual content, presentations, and social media.
 - Features include Magic Write and Magic Edit, but the AI features may feel shallow to experienced designers.
- Meta AI
 - This is best for quick queries and social assistance, but its use is limited outside Meta apps.

Module 4.4: Ethics in Action

- Transparency and accountability matter; users deserve to know training data sources.
- It's important to understand how tools handle user data and whether they produce biased outputs.
- Some companies disclose model architecture and safety protocols; others don't.
- Businesses and individuals should choose tools that prioritize ethical transparency.
- Consider the environmental impact; some tools require significant computational resources.
- Open-source alternatives offer more transparency but require technical expertise.

Module 4.4: Techie Dive

- Even similar-looking tools have dramatically different underlying technology.
- Some use transformer-based models; others integrate search or domain-specific layers.
- Developers choose based on API flexibility, system prompts, memory handling, compatibility.
- Understanding architecture helps predict tool behavior and limitations.
- Context window sizes vary significantly between tools.
- Model versioning affects consistency; outputs may change with updates.

Module 4.4: Business Lens

- Not every tool fits every business need; some want internal system integration.
- Others prioritize cost control, output consistency, or data privacy.
- Key questions:
 - Does it align with the business's goals?
 - Can it scale?
 - Will it help maintain regulatory compliance?
- Understanding tools' strengths and limitations enables informed strategic investments.
- Consider the total ecosystem: ChatGPT might be good for independents, Copilot might be good for Microsoft shops, and Gemini might be good for Google users.
- Switching costs can be high, so choosing the right tool initially saves migration pain.

Key Takeaways

- Tool selection should be based on the nine key considerations, not hype or popularity.
- Custom AI models allow for personalization without requiring coding expertise.
- Creating custom models requires careful planning: purpose, inputs, training data, outputs, testing.
- You are responsible for what your custom AI model says, so test it thoroughly before deployment.
- AI tools integrate through built-in features, extensions, file uploads, and automation platforms.
- Privacy and security are critical when connecting AI to workflows that involve sensitive data.
- The major platforms each have distinct strengths and limitations.
- Match capabilities to specific needs while also considering ethical implications.
- Understanding what AI does and how it does it enables responsible use.
- Informed technology investments require knowledge of tool architecture and ecosystem fit.