**What Is Generative AI?**

* **AI that creates** new content (text, image, audio, video) from prompts.
* Examples: ChatGPT (text), DALL·E (images), ElevenLabs (voice).

**What is Prompt Engineering?**

**Definition:**  
Prompt engineering is the skill of crafting effective instructions or questions (called “prompts”) for AI models like ChatGPT to get useful, targeted, and reliable responses.

* It’s an instruction or question given to AI (like ChatGPT or Gemini).
* Clear prompts = Better responses

**Why it's important:**  
Just like searching on Google, the quality of your question affects the quality of the answer. In AI tools, prompts directly shape the output quality in content writing, design generation, research, automation, and more.

**2. Anatomy of a Good Prompt**

**Effective Prompt Structure:**

* **Role:** Who is the AI acting as?  
  *e.g., “Act like a resume coach”*
* **Task:** What should the AI do?  
  *e.g., “Write a resume summary for a BBA graduate”*
* **Context:** What background info helps?  
  *e.g., “Interned at a startup HR department”*
* **Format:** What should the response look like?  
  *e.g., “Use bullet points, max 3 lines”*

**Prompt Engineering Techniques (Hands-On Focus)**

1. **Zero-shot:** Give task with no example
2. **Few-shot:** Give 2 examples, ask for 3rd
3. **Chain-of-Thought:** “Explain step-by-step…”

**Live Practice Using ChatGPT/Gemini/Claude:**

* Write an **email to a professor requesting a deadline extension**
* Draft **a cover letter for an internship**
* Ask AI to **explain a difficult ML topic** using step-by-step logic

**Prompt Engineering Techniques (Advanced)**

|  |  |  |
| --- | --- | --- |
| Technique | Example | Purpose |
| Role Prompting | "Act like a data analyst" | Set AI’s tone |
| Chain of Thought | "Explain step-by-step..." | Forces logical reasoning |
| Few-shot Prompting | Give 2 examples, ask for 3rd | Learns from context |

*These increase accuracy and depth of AI outputs.*

**🧱 Prompt Structure:**

|  |  |  |
| --- | --- | --- |
| Element | Purpose | Example |
| Role | Who should AI act as? | “Act like a resume coach” |
| Task | What to do? | “Write a summary for BBA graduate” |
| Context | Background info | “Interned in an HR firm in Kathmandu” |
| Format | Style of output | “Use bullet points, max 3 lines” |

**💡 Techniques:**

1. **Zero-shot prompting:** Just ask the question directly.
2. **Few-shot prompting:** Give examples to guide the AI.
3. **Chain-of-thought prompting:** Ask AI to explain step-by-step.
4. **Role prompting:** Make AI take a specific role (e.g., banker, visa officer).

**Practice Tasks:**

* Write an SOP for a student applying to TU.
* Use ChatGPT to summarize NEPSE stock trends for a beginner.
* Use Perplexity AI to explain the visa application process in steps.
* Create a prompt that teaches a grade 10 student “climate change.”

**Hands-On Group Challenge**

**Objective:** Apply learning to a real-world case.  
**Instructions:**

* Pick 1 AI tool from the toolkit.
* Solve a practical problem (e.g., design a social post, automate a form).
* Present: What problem you solved, how you prompted the tool, and show output.
* Peer voting: “Most useful”, “Most creative”.

**3. AI Tools You Must Know (Categorized)**

**A. Text & Productivity Tools**

1. **ChatGPT / Gemini / Claude:** General AI for writing, planning, Q&A.
2. **Notion AI:** Summarizes notes, helps plan research, write blogs.
3. **GrammarlyGO:** Rewrites and improves grammar/style of writing.
4. **Otter.ai / Tactiq:** Real-time transcription of lectures/meetings.

*Use for: assignments, meeting notes, reports, professional writing*

**B. Creativity & Design Tools**

1. **Canva Magic:** Turn ideas into posters, social posts, slides.
2. **DALL·E / Ideogram:** Generate images with text prompts.
3. **RunwayML / Pictory:** Create videos from text or slides.
4. **ElevenLabs:** Realistic AI voiceover for videos and narration.

*Use for: content creation, marketing, presentations, YouTube videos*

**C. Coding & Automation Tools**

1. **GitHub Copilot:** Code autocomplete and suggestions inside IDEs.
2. **Replit + Ghostwriter:** Code + AI chat in browser-based editor.
3. **Google Colab + ChatGPT:** Ideal for Python + Machine Learning support.
4. **Zapier / Make.com:** Automate tasks (e.g., emails → Sheets).
5. **Teachable Machine:** Create your own ML models without code.

*Use for: automating workflows, personal coding support, model prototyping*

**D. Research & Career Tools**

1. **Elicit.org:** Helps find academic papers and summarizes them.
2. **Perplexity.ai:** AI-powered search engine with citations.
3. **Kickresume / ResumAI:** Builds ATS-friendly resumes and cover letters.

*Use for: thesis, research paper prep, applying for internships/jobs*

**6. Smart & Ethical Use of AI**

* Don’t input personal/sensitive data into AI tools.
* Always fact-check AI-generated content.
* Use AI to support, not replace your thinking.
* Avoid plagiarism in assignments or reports.

**Suggested Practice Activities**

* Create a poster using Canva for "AI Awareness Day".
* Summarize a blog using Notion AI and convert it into slides via SlidesAI.
* Use ChatGPT to write a LinkedIn bio, polish it using GrammarlyGO.
* Use Elicit to review 2 AI-related research papers.
* Set up a Zapier flow: new email → Google Sheets log.

## ****Nepal Contextual****

### 1. ****AI Use Cases in Nepal****

Make AI real by referencing practical, local applications:

#### **Education Sector**

* **AI-based content creation** for private schools and colleges (e.g., automated notices, newsletters).
* Use **Notion AI** for managing student projects, notes, and lesson summaries.
* College students using **ChatGPT** for SOPs, thesis abstracts, CVs.

#### **Entrepreneurship & Business**

* Local SMEs using **Canva + ChatGPT** to create marketing materials.
* **Zapier** to automate customer leads from Google Forms into Sheets or CRM.
* **Pictory** used by digital marketing freelancers to create product demo videos.

#### **Freelancing & Remote Work**

* Tools like **GitHub Copilot**, **Replit**, and **ChatGPT** help Nepali freelancers deliver faster.
* Resume builders like **Kickresume** help Nepali graduates apply for global internships and jobs.
* **ElevenLabs** used for YouTube narration or TikTok storytelling.

### 2. ****Language & Localization****

Introduce tools that work with or support **Nepali language**, such as:

* **Google Translate + Gemini:** Create prompts in English, translate to Nepali.
* **Bhasa.ai (Nepali startup):** Explore Nepali voice interfaces and regional NLP work.
* Explain that most advanced models (like GPT-4, Gemini 1.5) still perform best in English — so improving prompt skills in English is **valuable**.

### 3. ****AI Opportunities for Nepali Youth****

Explain how students in Nepal can **leverage AI tools to overcome local limitations**:

|  |  |
| --- | --- |
| Challenge | AI Solution |
| Lack of access to expert mentors | Use ChatGPT to simulate interview prep, career advice |
| Low exposure to design tools | Canva Magic can auto-generate professional posters |
| Academic resource gaps | Elicit.org helps find global research papers |

Use of **free-tier tools** where possible to reduce cost barriers.

### 4. ****Career Paths Using These Tools (Local Focus)****

Help students visualize how prompt engineering and AI literacy can lead to:

* **Remote Freelancing (Upwork/Fiverr):** Content writing, AI-based video editing
* **Social Media Management:** Auto-generated captions, images, responses
* **Digital Marketing & Startups:** AI for branding, automation, presentation
* **AI Tool Trainer/Facilitator:** Train others in rural or semi-urban schools
* **Virtual Assistance Roles:** Combining Notion AI + ChatGPT + Otter.ai for productivity support

### 5. ****Mini Local Challenge Ideas****

* Create an **admission poster** for a local school/college.
* Draft a **notice in both English and Nepali** using ChatGPT + Translate.
* Summarize a **news article from Setopati/Kantipur** with Notion AI.
* Build a Zapier automation for **event registration (Google Form → Sheets)**.

### 6. ****Responsible AI Use in Nepali Context****

Highlight concerns relevant to Nepal:

* Don’t use AI to plagiarize MBS/MScITM thesis or academic papers.
* Be cautious with **sharing citizenship or PAN info** in tools like ChatGPT.
* Nepali job seekers must **avoid over-reliance** on AI in personal statements/SOPs.

**AI Tools for Career, Study & Research (Hands-On Tool Exploration)**

**💡 Key Tools Covered:**

|  |  |
| --- | --- |
| Purpose | Tools |
| Writing & Notes | ChatGPT, Notion AI, GrammarlyGO |
| Transcription | Otter.ai, Tactiq |
| Research | Elicit.org, Perplexity.ai |
| Resume | Kickresume, ResumAI |

**Practical Tasks:**

* **Use Elicit** to find papers on “AI in education”
* **Summarize research** using Notion AI
* **Write your CV intro** in ChatGPT, polish in GrammarlyGO
* **Transcribe a YouTube lecture** using Otter.ai (demo)

**AI Tools for Business, Office Work & Automation**

* + Designing posters (Canva Magic)
  + Automating tasks (Zapier)
  + Creating slides (SlidesAI)
  + Smart scheduling (Motion, Reclaim AI)
* **Design a social media post** for “Admission Open” using Canva
* **Set up Zapier** to auto-log Google Form to Google Sheet (or simulate)
* **Turn a blog** into a slide deck using SlidesAI.io
* **Plan your week** using Motion (demo scheduling assistant)

**Group Discussion**

* “Which tool would help most in your internship, job, or business?”

**Generative AI for Creativity (Hands-On Design + Media)**

**Tools in Focus:**

* **DALL·E / Ideogram** – Generate images from text
* **RunwayML / Pictory** – Make videos from blog text
* **ElevenLabs** – Convert text to voiceovers

**Practical Exercises:**

* Create a **poster for ‘AI Awareness Week’** using Ideogram
* Generate a **video about student life** with Pictory
* Create a **voiceover** for a Nepali tourist ad using ElevenLabs

**Final Reflection**

* How these tools solve local problems in **Nepali schools, startups, and government**?
* How students can use this skill for **freelancing, remote jobs, or entrepreneurship**?

**AI Tools for Career, Study & Research**

|  |  |  |
| --- | --- | --- |
| Purpose | Tool | What it does |
| Study & Notes | Notion AI | Summarizes, organizes notes |
| Research | Elicit.org | Finds & summarizes papers |
| Resume | Kickresume, ResumAI | Creates ATS-friendly CVs |
| Grammar | GrammarlyGO | Fixes writing errors |

**Practical Exercises:**

* Generate a resume intro using Kickresume + ChatGPT.
* Find and summarize 1 research paper using Elicit.
* Turn PSC essay prompt into a structured outline using ChatGPT.
* Translate MBS thesis abstract into polished English with GrammarlyGO.

**AI Tools for Business, Finance, Excel & Office**

**🔍 Tools:**

|  |  |
| --- | --- |
| Task | Tool |
| Excel formula help | ChatGPT |
| Automated tasks | Zapier |
| Turn text to slides | SlidesAI |
| Schedule & plan | Motion / Reclaim AI |

**Practical:**

* Use ChatGPT to write Excel formulas for a monthly expense sheet.
* Simulate a Zapier automation (e.g., Google Form → Sheets).
* Convert a business idea description into a presentation with SlidesAI.

**Generative AI for Design, Voice & Video**

|  |  |  |
| --- | --- | --- |
| Media Type | Tool | Use |
| Image | DALL·E, Ideogram | Posters, thumbnails |
| Video | RunwayML, Pictory | Create videos from text |
| Voice | ElevenLabs | Voiceovers for videos |

**Practice:**

* Generate a poster for “AI Awareness Week” using Ideogram.
* Create a video from a blog using Pictory.
* Make a voiceover for a “Visit Nepal” ad using ElevenLabs.

### ****New Tools & What They're For****

* **Pixverse, Pika Labs, Runway, Vidu:** Text-to-video generation
* **Suno AI, Hailuo AI:** AI voice and music creation
* **MS Designer, Leonardo, OpenMagic:** AI for posters, logos, social posts
* **Gamma AI, WriteSonic, Notebook LM:** Writing, slide creation, summarizing notes
* **AceStep AI:** Nepali-focused tutoring and tools
* **Websim AI:** Simulation learning environment
* **There’s An AI For That:** Discover thousands of AI tools by function

**🔍 1. AI Discovery Platforms**

**🛠 Tool: There’s An AI For That**

📘 *What it does:* Search engine of 10,000+ AI tools by function.  
🔧 **Practice:** Search “Nepali language” or “business automation” and bookmark 3 tools.

🌐 <https://theresanaiforthat.com>

**🧠 2. All-in-One AI Hubs**

**🛠 Tool: Killer AI**

📘 *What it does:* All-in-one workspace to write, plan, design, automate.  
🔧 **Practice:** Create a to-do list and write an email for your internship application.

🌐 <https://killerai.io>

**🎥 3. Text to Video AI Tools**

**🛠 Tool: Pixverse**

📘 *What it does:* Turns blog ideas or event descriptions into engaging videos.  
🔧 **Practice:** Convert a paragraph on “Visit Pokhara 2082” into a promotional video.

🌐 <https://pixverse.ai>

**🛠 Tool: Pika Labs**

📘 *What it does:* Animate characters, text, scenes from simple inputs.  
🔧 **Practice:** Create a storytelling video based on your college life in Kathmandu.

🌐 <https://pika.art>

**🛠 Tool: Runway ML**

📘 *What it does:* Edit videos, generate AI scenes, remove objects.  
🔧 **Practice:** Turn your presentation content into a narration video.

🌐 <https://runwayml.com>

**🛠 Tool: Vidu AI**

📘 *What it does:* Generate vertical videos for Reels or TikTok using text.  
🔧 **Practice:** Make a 15-second product pitch video for a local Nepali brand.

🌐 <https://vidu.ai>

**🔊 4. Voice & Audio AI Tools**

**🛠 Tool: Suno AI**

📘 *What it does:* Compose songs or audio tracks from text.  
🔧 **Practice:** Write a motivational jingle about “Tech in Nepal” and convert it to music.

🌐 <https://suno.ai>

**🛠 Tool: Hailuo AI**

📘 *What it does:* Voice cloning, narration, speech generation.  
🔧 **Practice:** Clone your voice reading a Nepali poem or speech for a video intro.

🌐 <https://hailuo.ai>

**🎨 5. Design & Art Tools**

**🛠 Tool: MS Designer**

📘 *What it does:* Create beautiful designs using text descriptions.  
🔧 **Practice:** Make a banner for “AI Bootcamp KMC-TU 2025”.

🌐 <https://designer.microsoft.com>

**🛠 Tool: Leonardo AI**

📘 *What it does:* Generate concept art, anime, realistic or stylized graphics.  
🔧 **Practice:** Design a sci-fi themed poster for Nepali youth tech movement.

🌐 <https://leonardo.ai>

**🛠 Tool: OpenMagic AI**

📘 *What it does:* Logo and branding design for startups.  
🔧 **Practice:** Generate a logo for a fictional Nepali AI startup “SajiloBot”.

🌐 <https://openmagic.ai>

**📊 6. Presentation & Content Writing**

**🛠 Tool: Gamma AI**

📘 *What it does:* Converts rough ideas into slide decks or reports.  
🔧 **Practice:** Generate slides for your final-year project or research summary.

🌐 <https://gamma.app>

**🛠 Tool: WriteSonic**

📘 *What it does:* AI writing assistant for blog posts, ads, SEO.  
🔧 **Practice:** Write a blog post titled “Why AI Skills Matter in Nepal’s Job Market”.

🌐 <https://writesonic.com>

**🛠 Tool: Notebook LM**

📘 *What it does:* Chat with your uploaded documents and notes.  
🔧 **Practice:** Upload your thesis outline and ask “What sections are missing?”

🌐 <https://notebooklm.google>

**🧪 7. Education & Simulation**

**🛠 Tool: AceStep AI (Nepali)**

📘 *What it does:* Tutoring, learning support, summarization in Nepali context.  
🔧 **Practice:** Use it to explain SEE-level math problem in simple Nepali.

🌐 <https://acestep.ai>

**🛠 Tool: Websim AI**

📘 *What it does:* Create simulated scenarios (e.g., business, science).  
🔧 **Practice:** Simulate a virtual startup launch and observe results.

🌐 <https://websim.ai>

**🛠 Tool: Media.io (Media AI)**

📘 *What it does:* All-in-one platform to edit audio, convert formats, and generate media.  
🔧 **Practice:** Remove noise from your podcast or convert a video summary into mp3.

🌐 <https://media.io>

# **,**

## Introduction to Generative AI & Prompt Engineering

### 🧠 Theory (10–15 min)

* **What is Generative AI?**  
  Generative AI refers to tools that create content (text, images, video, audio) based on human input, known as prompts. These tools are powered by large models like GPT-4, Claude, and Gemini.
* **Real-world examples:**
  + **ChatGPT:** For conversation, summarization, and writing.
  + **DALL·E / Leonardo AI:** For artwork or design generation.
  + **Suno AI:** For music generation.
  + **Runway / Pika / Pixverse:** For converting ideas into videos.
* **Why is this relevant in Nepal?**  
  In Nepal, these tools can help:
  + Educators create content for multilingual classrooms
  + Small businesses automate content marketing
  + Students summarize research & write resumes
  + Startups prototype branding assets

### Practical

* Use ChatGPT to translate a college orientation invite into Nepali.
* Visit [theresanaiforthat.com](https://theresanaiforthat.com) → search “Nepali language” tools.
* Use Pixverse to create a promo video for "Visit Pokhara 2082."

### Practical

* Build an Excel formula using ChatGPT: calculate average monthly sales.
* Simulate Zapier automation: auto-store form responses in a Google Sheet.
* Use Gamma AI to convert a written business pitch into a 5-slide deck.
* Translate an office circular to Nepali-English using AceStep AI.

## 📦 Bonus: Top Tools by Category

|  |  |
| --- | --- |
| Category | Tools |
| Discovery | There’s An AI For That, Killer AI |
| Writing & Research | ChatGPT, WriteSonic, Elicit, Notebook LM |
| Media & Design | Pixverse, MS Designer, Leonardo, Pika, OpenMagic |
| Video & Audio | Suno AI, Hailuo AI, Runway, Vidu |
| Productivity | Zapier, AceStep, SlidesAI, Gamma AI |

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