

Handout 1: Getting Started with AI Prototyping (Basic Level)

Machine Learning for Smarter Innovation

1 Handout 1: Getting Started with AI Prototyping (Basic Level)

1.1 What is Generative AI?

Generative AI creates new content - text, images, code, audio - based on patterns learned from existing data. Think of it as a creative assistant that can help you prototype ideas faster.

1.1.1 Common Generative AI Tools

1. **ChatGPT/Claude** - Text generation, brainstorming, writing
2. **DALL-E/Midjourney** - Image creation from text descriptions
3. **GitHub Copilot** - Code writing assistant
4. **Canva AI** - Design automation

1.2 Your First AI Prototype: Step-by-Step

1.2.1 Step 1: Define Your Goal

- What problem are you solving?
- Who is your target user?
- What would success look like?

1.2.2 Step 2: Choose Your Tool

- **For text/ideas:** ChatGPT (free tier available)
- **For images:** Bing Image Creator (free with Microsoft account)
- **For design:** Canva (free tier with AI features)

1.2.3 Step 3: Write Your First Prompt

Bad Prompt: "Make a logo"

Good Prompt: "Create a minimalist logo for a sustainable coffee shop called 'Green Bean' using earth tones and a coffee plant leaf icon"

1.2.4 Step 4: Iterate and Refine

- Generate 5-10 variations
- Combine the best elements

- Refine with more specific prompts

1.3 Practical Exercise: 30-Minute Product Concept

1.3.1 Materials Needed

- Computer with internet
- Free ChatGPT account
- Free Canva account

1.3.2 Task

Create a mobile app concept for helping students manage study time.

1.3.3 Process

1. Brainstorm (5 min)

- Ask ChatGPT: “Generate 5 innovative features for a student time management app”

2. Develop Concept (10 min)

- Pick the best 3 features
- Ask for detailed descriptions

3. Create Visuals (10 min)

- Use Canva AI to generate app mockup
- Create simple logo

4. Write Description (5 min)

- Generate app store description with ChatGPT

1.4 Tips for Success

1.4.1 DO:

- Start simple
- Try multiple variations
- Combine AI output with your ideas
- Always review and edit AI content
- Save your prompts for reuse

1.4.2 DON'T:

- Accept first output as final
- Use AI content without review
- Ignore ethical considerations
- Share sensitive data

1.5 Common Beginner Mistakes

1. **Vague Prompts** → Be specific!
2. **No Iteration** → Always generate multiple versions
3. **Blind Trust** → Always fact-check AI outputs
4. **Over-complexity** → Start with simple tasks

1.6 Free Resources to Explore

- **OpenAI Playground:** experiments.openai.com
- **Hugging Face:** Free AI models to try
- **Google Colab:** Free computing for AI experiments
- **YouTube:** “AI for beginners” tutorials

1.7 Ethics Reminder

- Always disclose when content is AI-generated
- Don't use AI to create misleading content
- Respect copyright and intellectual property
- Consider bias in AI outputs

1.8 Your Homework

1. Create 3 different product concepts using AI
2. Generate 5 variations of each
3. Document which prompts worked best
4. Share your favorite with the class

1.9 Questions to Consider

- How did AI speed up your creative process?
- What limitations did you encounter?
- How would you combine AI with traditional methods?
- What ethical concerns arose?

Remember: AI is a tool to enhance your creativity, not replace it. The best results come from human creativity guided by AI assistance.