

Prompt Engineering

Prompting, Context Engineering & Verbalized Sampling



Agenda

1. Why AI prompting matters in Mass Media
2. Strong prompts: RTAFCE
3. Context Engineering
4. Getting creative answers: Verbalized Sampling (VS)
5. Tool workflow
6. Group activity: weak → strong prompts
7. Responsible use & next steps

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Why Prompt Engineering?



The New Reality in Media Classrooms

- ▶ Students use AI for:
 - ▶ headlines, captions, story ideas
 - ▶ script drafts, social media posts
- ▶ Faculty use AI for:
 - ▶ lecture notes, activities, rubrics
- ▶ Industry uses AI for:
 - ▶ newsrooms, copywriting, audience analytics
- ▶ Key question: **How do we use AI well, not just use AI?**

Why Prompting Matters for Mass Media

- ▶ AI output depends on:
 - ▶ **how** we ask
 - ▶ **for whom** we ask
 - ▶ **where** it will be used (TV, Insta, podcast, print)
- ▶ Weak prompts risk:
 - ▶ stereotypes, sensationalism, misinformation
 - ▶ boring, copy-paste-looking content
- ▶ Prompting ⇒ a new **media literacy** skill

Activity – Spot the Weak Prompt

- ▶ I will show 2–3 prompts like:
 - ▶ “Write about elections.”
 - ▶ “Make a poster on women empowerment.”
- ▶ Think silently:
 - ▶ What is missing? (audience, platform, tone, length?)
 - ▶ What could go wrong? (bias, confusion, clickbait?)
- ▶ Be ready to share **one word** reaction.

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Strong Prompt Foundations



RTAFCE: A Strong Prompt Skeleton

RTAFCE

- ▶ **Role** – who is the AI? (reporter, copywriter, fact-checker)
- ▶ **Task** – what exactly to do?
- ▶ **Audience** – who will read / watch?
- ▶ **Format** – news brief, reel script, caption, thread, etc.
- ▶ **Constraints** – length, language, tone, platform
- ▶ **Examples** – 1–2 sample lines / styles

Weak vs Strong – News Example

Weak

- ▶ “Write a news article about a flood.”

Stronger (RTAFCE + context)

- ▶ Role: reporter for a regional English daily in Kerala
- ▶ Task: 300-word factual report on 2024 Alappuzha flood
- ▶ Audience: general readers (18–60)
- ▶ Format: who/what/when/where/why + one *illustrative* quote
- ▶ Constraint: simple language + 2-line context box with IMD data to verify

On the slide: skeleton. In your speech: actual example text.

Mini Activity – Build One Template

- ▶ Choose a media use case:
 - ▶ news explainer / ad copy / reel script / interview questions
- ▶ As a group, fill in orally:
 - ▶ Role, Task, Audience, Format
- ▶ I type one template live; you can reuse it later.

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Context Engineering



What is Context Engineering?

After Petricek (2023)

Deliberately designing the **background**, **instructions**, and **constraints** that shape AI output.

- ▶ AI infers context *only* from the prompt
- ▶ Context includes:
 - ▶ audience, culture, medium, risk level, purpose
- ▶ In media, context decides:
 - ▶ hero / victim / villain framing
 - ▶ neutral news vs opinion vs satire

Petricek, 2023; Bender et al., 2021; Diakopoulos, 2019

Why Context Matters for Mass Media

- ▶ Headlines & thumbnails shape perception
- ▶ Poor context instructions can:
 - ▶ normalise stereotypes
 - ▶ erase minority voices
 - ▶ invent quotes / stats
- ▶ Good context prompts ask for:
 - ▶ neutral tone (for news)
 - ▶ clear labelling (opinion, satire, PSA)
 - ▶ verification hints (“readers should cross-check...”)

Activity – Same Topic, Different Contexts

- ▶ Topic: “Explain climate change”
- ▶ We will change:
 - ▶ audience (school student, voter, policymaker)
 - ▶ medium (TV ticker, Insta story, infographic)
- ▶ Watch how the **same model** behaves very differently when we engineer the **context** clearly.

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Getting Creative Answers: Verbalized Sampling



The Predictable AI Problem

- ▶ Ask AI: “Tell me 5 coffee jokes.”
- ▶ Get: 5 jokes with same vibe:
 - ▶ “Coffee is my morning alarm.”
 - ▶ “I can’t function without caffeine.”
- ▶ This is **mode collapse**:
 - ▶ model sticks to a narrow “safe” set of replies
- ▶ Driven by **typicality bias**:
 - ▶ training feedback rewards familiar, predictable text

Verbalized Sampling (VS): Core Idea

- ▶ Instead of asking for *one* answer, ask for:

Prompt Transform

From: Tell me a joke about coffee.

To: Generate 5 responses with their corresponding probabilities. Tell me a joke about coffee.

- ▶ Model must:
 - ▶ list multiple candidates
 - ▶ attach approximate probabilities
- ▶ It starts to “speak in distributions”, not just give one decision

What VS Changes (Intuitively)

- ▶ Normal prompting:
 - ▶ pick one most typical answer
- ▶ VS prompting:
 - ▶ explore a **range** of answers
 - ▶ rank them by likelihood
- ▶ Experiments show:
 - ▶ ~1.6–2.1x higher diversity in creative tasks
 - ▶ more human-like response patterns
 - ▶ no loss of factual accuracy or safety

Two VS Patterns You Can Use

1. Rarity Hunt (escape stereotypes)

Generate 3 ideas for [TOPIC], but ONLY from the tail of the distribution. I want low-probability options (below 0.10). Skip the usual idea of [X].

2. Forced Categories (structured diversity)

Generate 3 campaign ideas – one in each category: (1) emotional story, (2) data-driven, (3) humour/viral-first.

Add: “Do not use XML tags or markdown in your output.” for clean text.

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Tools in the Workflow



Four Tools + VS for Media Work

- ▶ **ChatGPT** – content generation (scripts, captions, explainers)
- ▶ **Quartzite / PrompTessor** – turn rough prompts into RTAFCE prompts
- ▶ **FACTS-H RA-iPromptingToolkit** – compare prompt variants
- ▶ **Perplexity / Gemini** – fact-check & citations
- ▶ **VS** – when you want diverse, creative options

ChatGPT – Good Practice Prompts

News explainer

You are a neutral news explainer for UG Mass Media students in India. In 400 words, explain the main points of the latest IPCC report on climate change. Use clear subheadings and simple language. Highlight 3 points readers should fact-check using official IPCC or UN websites.

Caption set with creativity

Generate 5 Instagram caption options for a student short film on exam stress. Give each caption with an approximate probability. Avoid clichés. Do not use any tags or markdown in your output.

Verification with Perplexity / Gemini

- ▶ Generative models can:
 - ▶ invent stats, quotes, and sources
- ▶ Perplexity / Gemini can:
 - ▶ show URLs and citations
 - ▶ summarise from multiple news / official sites
- ▶ Good pattern:
 - ▶ Draft with ChatGPT (+ VS for diversity)
 - ▶ Verify key facts / names / dates with Perplexity or Gemini

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Integrated Workflow



Putting It Together

1. Rough idea in natural language
2. Quartzite / PrompTessor \Rightarrow RTAFCE + context prompt
3. RA-iPromptingToolkit \Rightarrow compare 2–3 variants
4. ChatGPT \Rightarrow generate script / explainer / captions
5. VS twist \Rightarrow ask for multiple options + probabilities
6. Perplexity / Gemini \Rightarrow verify facts and claims

Example – Deepfakes in Elections (Explainer Video)

- ▶ Task: 3-minute student explainer video
- ▶ Prompt flow:
 1. RTAFCE prompt: role, audience, format (3 segments), tone
 2. VS: 5 different hook ideas with probabilities
 3. ChatGPT: script with intro–body–outro using chosen hook
 4. Perplexity / Gemini: verify laws & real cases mentioned

Example – Mental Health Campaign

- ▶ Task: campus mental health awareness campaign
- ▶ Prompt flow:
 1. RTAFCE: role (campaign designer), audience, formats (poster + 3 posts)
 2. Forced-categories VS: emotional / data-driven / humour ideas
 3. ChatGPT: develop chosen idea into copy
 4. Perplexity / Gemini: check any stats with WHO / Govt sources

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Group Activity



Group Task – Weak to Strong, Responsible

- ▶ Each group gets **one weak media prompt**
- ▶ On chart paper, capture:
 1. What is missing? (RTAFCE + context)
 2. Risks? (bias, privacy, misinformation)
 3. Improved prompt **elements** (no need full paragraph)
 4. Where VS could help (diverse ideas?)
 5. Which tools you would use (ChatGPT, RA-iToolkit, Perplexity)

Example Weak Prompts for Groups

- ▶ “Write a headline about elections.”
- ▶ “Explain the Israel–Palestine conflict in one line.”
- ▶ “Make a breaking news alert about a rumour.”
- ▶ “Give me a viral caption for my Instagram post.”
- ▶ “Write my media law assignment for me.”

Your job: make them **strong, context-aware, responsible**.

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Responsible Use



Responsible AI Use in Media

- ▶ **Transparency** – acknowledge AI support when needed
- ▶ **Verification** – double-check quotes, stats, names
- ▶ **Privacy** – no sensitive personal data in prompts
- ▶ **Integrity** – AI can help you learn, not write your exam
- ▶ **Bias & Inclusion** – scan outputs for stereotypes
- ▶ **Media Ethics** – avoid defamation, hate speech, doxxing

Quick Reflection

- ▶ Think of **one way** AI can help you be more responsible:
 - ▶ e.g., spotting bias, clarifying language, comparing sources
- ▶ Think of **one risk** if used carelessly:
 - ▶ e.g., rumours, plagiarism, deepfake misuse
- ▶ We will share a few “Help / Risk” pairs in the room.

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Closing



Key Takeaways

- ▶ Prompting = **how you talk** to AI; context engineering = **where** that talk lives
- ▶ RTAFCE gives a simple skeleton for strong prompts
- ▶ Verbalized Sampling helps AI “speak in possibilities”, not just safe answers
- ▶ A small toolchain (ChatGPT, Quartzite, RA-iToolkit, Perplexity, VS) can support real Mass Media work
- ▶ You are not just AI *users*; you are **AI directors** for stories, news, and campaigns

Next Steps for You

- ▶ Pick 2–3 regular tasks (headlines, scripts, captions)
- ▶ Design one RTAFCE + context prompt for each
- ▶ Add a VS twist when you want creativity
- ▶ Fact-check with Perplexity / Gemini before publishing anything
- ▶ Share good prompts with your batch as a “Prompt Handbook”

FACTS-H RA-iPrompting Toolkit



Scan to explore the RA-iPrompting Toolkit

References (For Curious Minds)

- ▶ Petricek, T. (2023). *Prompting is Programming: The Rise of Context Engineering*.
- ▶ Bender, E. M., Gebru, T., McMillan-Major, A., & Shmitchell, S. (2021). *On the Dangers of Stochastic Parrots*. ACM FAccT.
- ▶ Boyd, D. & Crawford, K. (2012). *Critical Questions for Big Data*. Information, Communication & Society.
- ▶ Diakopoulos, N. (2019). *Automating the News: How Algorithms Are Rewriting the Media*.
- ▶ Recent work on *Verbalized Sampling* & mode collapse in LLMs: creative diversity, typicality bias, and KL-divergence analysis.

Thank You & Discussion

- ▶ Questions from your Mass Media context?
- ▶ Prompts or examples you want to try live?
- ▶ Ideas for follow-up sessions or labs?

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FACTS-H Lab – Teaching Technology with Values—The FACTS-H Way

