AI in Economic Development – Tips for prompt optimization

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Components of a Prompt

A "prompt" refers to a text input that is provided to an AI language model, based on which it generates a response or output.

When creating a prompt, it's important to understand the different components that you may use in it. The following list describes the different components of a prompt:

- *Role*
- *Instructions*
- *Input data*
- *Context*
- *Rules*
- *Output*
- *Examples*

There is no official standard for creating prompts, but most prompts contain at least one of these components. Generally, the more of these components it has, the higher the likelihood that the generated response will be closer to our expectations.

ROLE

Put AI in a role of a fictional character that represents a specific type of user that specialized for the type of response you are expecting. For example:

- *Economist specialized for Community Economic Development*
- *Economic Data Analyst*
- *Marketing Specialist*

INSTRUCTIONS

The instructions are the main part of the prompt, and they provide the main task for the model. For example:

- *Write a blog post about our town as a tourism destination.*

INPUT

Input data is used to provide the AL model with information relevant for the answer we are expecting. It can be anything from a couple of sentences to a list or a long paragraph, or even tabular data. For example:

- *You want to create a blog post about main attractions in your town and you want help from an AI model. You can assist the model by proving it with the list of attractions you want to highlight in the post.*

CONTEXT

Adding context to the prompt is optional, but it can be useful to provide additional information about the task or application. It helps guide the model's response towards a specific direction. For example:

- *The list of attractions was compiled by our tourism department based on our tourism strategy and visitor feedback collected in our Information Centre. This blog will be published on a regional destination promotion website and target audience are potential future visitors.*

RULES

Rules provide additional information about the task. A rule can be used to enforce a specific behavior (e.g., tone, style, etc.), or provide additional context for the prompt. For example:

- *Write the article in friendly tone. Highlight the uniqueness of each location.*

OUTPUT

The output gives the model a hint about the type of output that is expected. For example:

- *Output: A blog post for a destination marketing website about 500 words long.*

Our prompt now looks like:

You are a marketing expert specialized in tourism and destination marketing.

Write a blog post about our town as a tourism destination.

I want to highlight the following attractions:

- *Attraction 1, famous for things 1, 2 and 3.*
- *Attraction 2, famous for things 1, 2 and 3.*
- *Attraction 3, famous for things 1, 2 and 3.*
- *Etc.*

The list of attractions was compiled by our tourism department based on our tourism strategy and visitor feedback collected in our Information Centre. This blog will be published on a regional destination promotion website and target audience are potential future visitors.

Write the article in friendly tone. Highlight the uniqueness of each location

Output: A blog post for a destination marketing website about 500 words long.

Use Case 1: Enhancing Investment Attraction

Scenario:

You're tasked with attracting investors to the renewable energy sector in your city.

Prompt Optimization:

- **Before:** "Write about our city."

- **After:**

  Role: You are a skilled marketing copywriter specializing in economic development and investment promotion.

  Input: Information about our city's renewable energy sector, including tax incentives, skilled workforce statistics, sustainability commitments, and recent infrastructure developments.

  Instructions: Craft a compelling investment pitch that highlights the benefits of investing in our city's renewable energy sector.

  Context: The pitch will be used in marketing materials aimed at potential investors and businesses in the renewable energy industry.

  Rules:

  - Use persuasive and professional language.

  - Emphasize unique selling points.

  - Keep the pitch concise (approximately 300 words).

  - Address the target audience's interests and concerns.

  Output: A powerful investment pitch ready for inclusion in promotional brochures and on our website.

Explanation:

- **AI Assistant Role:** Defines the AI as a marketing copywriter.

- **Input:** Provides the necessary information to include.

- **Instructions:** Specifies the task to create an investment pitch.

- **Context:** Explains the purpose and audience.

- **Rules:** Sets parameters for tone, length, and focus.

- **Output:** Details the expected deliverable.

CityViz Economic Development Data Portal

Use case 2: Predictive Analytics for Planning

Scenario:

You want to anticipate how remote work trends will affect local commercial real estate.

Prompt Optimization:

- **Before:** "Predict the economy."

- **After:**

  Role: You are an economic analyst with expertise in predictive modeling and urban development.

  Input: Current data on remote work adoption rates, downtown commercial real estate occupancy rates, and economic indicators relevant to our city.

  Instructions: Forecast the economic impact of increasing remote work trends on downtown commercial real estate demand over the next five years. Develop multiple scenarios based on varying levels of remote work adoption.

  Context: The forecast will guide urban planning and policy decisions to mitigate potential negative impacts on the commercial real estate market.

  Rules:

  - Use reliable data sources and cite them.

  - Present findings in a report with charts and graphs.

  - Include an executive summary highlighting key insights.

  - Discuss assumptions and limitations of the forecast.

  Output: A detailed predictive analysis report with scenarios, visualizations, and strategic recommendations.

  Explanation:

  - **AI Assistant Role:** Defines the assistant's expertise in predictive analytics.

  - **Input:** Specifies the data needed for the forecast.

  - **Instructions:** Details the task and expectation for scenarios.

  - **Context:** Explains the purpose of the forecast.

  - **Rules:** Sets guidelines for the report's content and structure.

  - **Output:** Describes the expected comprehensive report.

Use Case 3: Community Engagement for Economic Forum

Scenario:

You aim to boost attendance at an upcoming economic forum.

Prompt Optimization:

- **Before:** "Engage the community."

- **After:**

Role: You are a social media strategist experienced in community engagement for public sector events.

Input: Details about the upcoming economic forum, including date, venue, keynote speakers, agenda highlights, and registration information.

Instructions: Create a social media campaign plan to encourage local businesses to participate. Develop compelling messages tailored for LinkedIn, Facebook, and Twitter, emphasizing networking opportunities and the benefits of attending.

Context: The campaign aims to increase event attendance and foster stronger relationships with the local business community.

Rules:

- Align messaging with each platform's best practices.

- Schedule posts to maximize audience reach.

- Use an engaging and professional tone.

- Include relevant hashtags and handles.

Output: A detailed social media campaign plan with platform-specific posts and a posting schedule.

Explanation:

- **AI Assistant Role:** Sets the assistant as a social media strategist.

- **Input:** Provides all necessary event information.

- **Instructions:** Directs the creation of a campaign plan.

- **Context:** Explains the goal of increasing attendance.

- **Rules:** Specifies tone, platform considerations, and technical details.

- **Output:** Details the expected deliverable—a campaign plan.

Use case 4: Writing an Economic Impact Report

Scenario:

You need to write a report about the economic impact of remote work on your city's real estate.

Prompt Optimization:

- **Before:** "Write a report on the economic impact of remote work on our city's real estate."

- **After:**

    Role: You are an economic analyst specializing in urban real estate trends.

    Input: Copy-paste from Excel file the data on remote work adoption rates and commercial real estate occupancy in our city.

    Instructions: Analyze how increasing remote work is impacting downtown commercial real estate, and forecast trends for the next five years.

    Context: The report will inform policy decisions to support the commercial real estate sector.

    Rules:

    - Include data visualizations.

    - Use formal language suitable for government officials.

    - Limit the report to 5 pages.

    Output: A detailed analytical report with forecasts and recommendations.

    Explanation:

    - **AI Assistant Role:** Sets the assistant as an economic analyst.

    - **Input:** Provides all necessary data.

    - **Instructions:** Directs the creation of the report.

    - **Context:** Explains the goal of supporting the policy makers.

    - **Rules:** Specifies expected response.

    - **Output:** Details the expected deliverable—an analytical report.

Use case 5: Streamlining New Business Support

Scenario:

Your department receives numerous inquiries about starting businesses in the city.

Prompt Optimization:

- **Before:** "Answer FAQs about starting a business"

- **After:**

  Role: You are a knowledgeable customer service assistant for the city's Economic Development Office.

  Input: Frequently asked questions about starting a small business in our city, including licensing, permits, zoning regulations, and financial assistance programs.

  Instructions: Provide clear, accurate answers to each FAQ, ensuring information is up-to-date.

  Context: These responses will be used to update our website's FAQ section and assist in automating responses to public inquiries.

  Rules:

  - Use friendly and approachable language.

  - Keep answers concise and informative.

  - Include links to relevant resources or departments.

  - Ensure compliance with current city regulations.

  Output: A set of well-crafted FAQ responses ready for publication and use in automated communication systems.

  Explanation:

  - **AI Assistant Role:** Sets the assistant as a customer service representative.

  - **Input:** Lists the topics/questions to address.

  - **Instructions:** Directs the assistant on how to answer.

  - **Context:** Explains where the answers will be used.

  - **Rules:** Specifies tone, style, and compliance needs.

  - **Output:** Outlines the final product expected.

Benefits of This Structure

- **Clarity and Precision:** Each component adds specificity, reducing ambiguity.

- **Consistency:** Following a structured format leads to more predictable outputs.

- **Efficiency:** Saves time by minimizing the need for revisions.

- **Customization:** Allows tailoring of outputs to meet specific needs and audiences.

Applying This Structure in Practice:

- When crafting prompts, consider each component and include relevant details.

- Adjust the level of detail based on the complexity of the task.

- Use this structure as a checklist to ensure all aspects are covered.

About CityViz

CityViz (https://cityviz.ca) is the go-to data platform for economic development.

It aggregates relevant data from various data sources (Statistics Canada, CMHC, federal, provincial, and other open data sources), and keeps it all up to date.

All data is visualized and presented in a user-friendly way, making it easy to get insights from vast amount of information.

With embeddable widgets (thematic collection of charts and maps), CityViz provides the marketing component that organizations can embed into their investment attraction or municipal websites.

Another component is the standalone data portal, featuring all data available in a web-based application with customizable dashboards, charts, maps, and reports.

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