# Interactive Prompts for Discerning a Marketing Manager's Al'able Tasks

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## Description

#### Definition

Interactive prompt: An interactive prompt is a prompt construction strategy for LLM-based systems that enables contextual guidance, multi-step instructions, and an iterative learning process with continuous feedback.

## Characteristics of interactive prompts

- Relevant Context: The background information or setting specific to the user, situation, task, or domain
- Multi-step Guidance: The structure of interactive prompts that breaks down a task, dialogue, or process into manageable steps, facilitating the AI in understanding and responding to each part effectively
- Feedback Facilitation: The deliberate design of prompts to encourage user feedback on the Al's performance
- Feedback Mechanisms: These are tools or methods, like A/B testing, user ratings, or questionnaires, used by interactive prompts to effectively collect feedback from users.
- Abstraction for Scalability: The process of transforming complex and diverse raw user feedback into a generalized format that the AI can learn from effectively
- Iterative Process: A cyclical process where prompts and interactions generate feedback, leading to updates and improvements in the Al's responses through multiple rounds.

## Plain text prompt (v.4, 7-13-2023)

The following prompt executes as specified on Claude 2.0; it fails on GPT-4 and chat-bison@001.

#### // Context

Hello AI. You are an advanced language model. I am a human learner who wants to learn about tasks that can be automated and augmented by AI. The aim of this interaction is to classify a list of marketing tasks into different categories based on the likelihood of them being automated or augmented by AI, or whether they require specific human expertise.

This is an interactive prompt with step-by-step instructions that you will accomplish with a human learner.

Interactive prompt: An interactive prompt is a prompt construction strategy for LLM-based systems that enables contextual guidance, multi-step instructions, and an iterative learning process with continuous feedback.

#### // AI OBJECTIVE

Al, pay attention to the following interactive prompt which has four steps!

#### // AI INPUT

A step may have one to seven parts: AI OBJECTIVE, AI INPUT, AI TASK, AI OUTPUT, AI VALIDATION QUESTION. HUMAN RESPONSE. AI CLOSURE.

\_Al Objective:\_ Provides critical context for the overall goal of the interaction. State it upfront so I understand the end objective.

\_AI Input:\_ Providing relevant information, data, or background needed for me to complete the next step is useful.

\_AI Task:\_ Gives me clear direction on the specific action needed in each step. Breaking down into small tasks prevents me from getting overwhelmed.

\_Al Output:\_ Asking me to summarize, show work, or provide an interim output helps validate I'm on track.

\_AI Validation Question:\_ Posing a direct question for human feedback creates a feedback loop to correct me if I'm off-base.

\_Human Response:\_ The human feedback helps me learn and improve. Specific corrections are most helpful.

\_AI Closure:\_ Wrapping up each step reinforces the context and keeps the conversation logically moving forward.

#### // AI OBJECTIVE

Al OBJECTIVE: Think step-by-step and maintain continuity of the complete context of this conversation until the conversation is finished.

#### // STEP 1

#### Step 1:

Al TASK: Introduce yourself to the human learner.

Al, explain your to the human user. Say something like this: Welcome! You've probably been experimenting with generative Al and maybe, you've read about its promises and perils! In this conversation, you will use an interactive prompt that understands how generative Al may impact the tasks you perform as a Marketing Manager. Your insights and feedback are invaluable in assessing and refining Al's categorizations:

- Al-Automated Tasks: Very likely to be automated by Al
- Al-Augmented Tasks: Very likely to be augmented by Al
- Not Impacted Tasks: Not likely to be impacted by AI
- Master Tasks: Require mastery and specialist knowledge
- Genius Tasks: Require unique human abilities exceeding Al.

#### // STEP 2

Step 2:

AI TASK: Produce a Synthesized List of Tasks

Closely read the List of Detailed Work Activities and the List of Tasks, then integrate all items to produce a Synthesized List of Tasks. Ensure that the Synthesized List of Tasks has no redundant items. Ensure that the list is comprehensive but do not add your ideas; reflect the meanings of items from the two source lists.

#### // AI INPUT

List of Detailed Work Activities:

Develop marketing plans or strategies.

Evaluate program effectiveness.

Direct sales, marketing, or customer service activities.

Analyze data to inform operational decisions or activities.

Estimate cost or material requirements. Determine pricing or monetary policies.

Compile operational data.

Supervise employees.

Confer with organizational members to accomplish work activities.

Analyze market research data.

Analyze forecasting data to improve business decisions.

Monitor external affairs or events affecting business operations.

Negotiate contracts for transportation, distribution, or logistics services.

Coordinate special events or programs.

Conduct opinion surveys or needs assessments.

Develop sustainable organizational policies or practices.

Recommend organizational process or policy changes.

Advise others on business or operational matters.

Develop marketing plans or strategies for environmental initiatives.

#### // AI INPUT

List of Tasks:

Identify, develop, or evaluate marketing strategy, based on knowledge of establishment objectives, market characteristics, and cost and markup factors.

Formulate, direct, or coordinate marketing activities or policies to promote products or services, working with advertising or promotion managers.

Evaluate the financial aspects of product development, such as budgets, expenditures, research and development appropriations, or return-on-investment and profit-loss projections.

Develop pricing strategies, balancing firm objectives and customer satisfaction.

Compile lists describing product or service offerings.

Direct the hiring, training, or performance evaluations of marketing or sales staff and oversee their daily activities.

Consult with product development personnel on product specifications, such as design, color, or packaging.

Use sales forecasting or strategic planning to ensure the sale and profitability of products, lines, or services, analyzing business developments and monitoring market trends.

Negotiate contracts with vendors or distributors to manage product distribution, establishing distribution networks or developing distribution strategies.

Coordinate or participate in promotional activities or trade shows, working with

developers, advertisers, or production managers, to market products or services.

Initiate market research studies, or analyze their findings.

Confer with legal staff to resolve problems, such as copyright infringement or royalty sharing with outside producers or distributors.

Consult with buying personnel to gain advice regarding the types of products or services expected to be in demand.

Consult with buying personnel to gain advice regarding environmentally sound or sustainable products.

Conduct economic or commercial surveys to identify potential markets for products or services.

Recommend modifications to products, packaging, production processes, or other characteristics to improve the environmental soundness or sustainability of products.

Advise business or other groups on local, national, or international factors affecting the buying or selling of products or services.

Select products or accessories to be displayed at trade or special production shows.

Develop business cases for environmental marketing strategies.

Integrate environmental information into product or company marketing strategies, policies, or activities.

#### // AI OUTPUT

Al OUTPUT: Al, deliver the list of Synthesized List of Tasks to the user.

#### // AI VALIDATION QUESTION

AI VALIDATION QUESTION: AI, ask the user: Are you satisfied with the list of tasks? Please respond with Yes or No.

#### // HUMAN RESPONSE

If the user responds Yes, then proceed to the next step.

If the user responds No, then say: "Please enter any corrections that you see fit and I will update the Synthesized List of Tasks.

#### // AI CLOSURE

AI CLOSURE: Deliver the final Synthesized List of Tasks to the user.

Proceed to the next step.

// STEP 3

Step 3:

Al TASK: Al, your input is the synthesized list of tasks. Categorize each item into one of five Task Types. Here are the Task Types:

- Tasks that are very likely to be automated by generative Al
- Tasks that are very likely to be augmented by generative Al
- Tasks that are not likely to be impacted by AI
- Tasks that require mastery and a significant degree of specialist knowledge or expertise
- Tasks that require genius and involve unique human abilities that currently exceed Al capabilities

#### // AI INPUT

Al, accomplish your categorization by learning the definitions and characteristics of the five Task Types. Do not add content; only categorize items that reside in the Synthesized List of Tasks.

#### // AI INPUT

Here are definitions and characteristics of the five Task Types:

Al-Automated Tasks: Al-Automated Tasks are tasks that are very likely to be automated by generative Al. Al-Automated Tasks are tasks that Al systems can fully perform independently, once they've been configured with the appropriate parameters and inputs. Here are the characteristics of tasks that are very likely to be automated by generative Al:

- Repetitiveness: If an activity involves repeated processes that follow the same pattern or rules, it's likely it can be automated. Examples could be data entry, data analysis or producing standard reports.
- Quantitative vs Qualitative: Tasks that are quantitative and rely on structured, numerical data are typically easier to automate than those requiring qualitative judgment. An AI can analyze large amounts of numerical data, identify patterns, and make predictions or decisions based on algorithms.

- Limited Context: Activities that don't require a deep understanding of broad context or nuanced interpretation are prime candidates for automation. This might include activities like compiling operational data or determining pricing based on specific rules.
- No Physical Interaction: If a task doesn't require physical action or manipulation of objects in the real world, it's easier to automate. For example, analyzing market research data or forecasting data for business decisions can be done by AI without physical interaction.

Al-Augmented Tasks: Al-Augmented Tasks are tasks that are very likely to be augmented by generative Al. Al-Augmented Tasks are performed more efficiently or effectively with the help of Al, but still necessitate human participation for completion or decision-making. Here are the characteristics of tasks that are very likely to be augmented by generative Al:

- Complex Decision Making: All can help humans make better decisions by processing vast amounts of data to provide insights and recommendations. But if the decisions involve complexity, ethical considerations, or unpredictable variables, human judgment is still crucial. In these cases, All can augment human decision-making rather than replacing it.
- Interpersonal Interaction: Any task that involves interpersonal interaction, empathy, or persuasion is likely to be augmented, rather than replaced, by AI. This includes activities like negotiating contracts or advising others on business matters.
- Unstructured Tasks: Tasks that involve dealing with unstructured information, creativity, or require a high degree of adaptability are hard to fully automate. For example, developing marketing strategies for environmental initiatives would involve understanding complex and unstructured data, understanding societal trends, and crafting creative strategies, all of which are areas where AI can assist but not fully replace human input.
- Constantly Evolving Tasks: Tasks that change frequently or require continuous learning in an unpredictable manner are hard to fully automate. They can, however, be augmented by Al. For instance, monitoring external affairs or events affecting business operations is a task that could greatly benefit from Al assistance, but due to its dynamic nature, would still require human oversight.

Not impacted Tasks: Not impacted Tasks are tasks that are not likely to be impacted by AI. Not impacted Tasks are tasks that can't be significantly enhanced or replaced by AI due to their inherent complexity, the necessity for nuanced human judgment, or the need for human empathy and emotion. Here are the characteristics of tasks that are not impacted by AI:

- Human-centric: These tasks need a high level of human interaction, empathy, or care. Al doesn't have the capability to replace the unique human touch or understand and mimic the vast array of human emotions accurately.
- Unpredictability: Tasks that do not have a set pattern or process and are contingent on real-time changes or decisions can't be significantly enhanced or replaced by AI.
- Creative Thought: Tasks that demand unique, inventive or out-of-the-box thinking, where no two instances are alike, are usually impervious to Al automation. Al may assist by providing data or suggestions, but it can't replicate human creativity.

- Critical Decision-Making: Tasks that involve complex, nuanced decision-making, ethical considerations, or unique understanding of complex scenarios cannot be replaced by Al.

Master Tasks: Master Tasks are tasks that require mastery and a significant degree of specialist knowledge or expertise. Master Tasks are tasks that require a significant degree of specialist knowledge or expertise. While AI may support these tasks, they predominantly require advanced human decision-making and skill. Here are the characteristics of master tasks:

- Domain Expertise: These tasks often require significant domain knowledge or expertise that can't be fully automated and requires a high level of human decision-making and skill.
- Strategic Thinking: They often involve planning, management or decision-making at a strategic level, requiring an understanding of the broader business landscape and long-term implications.
- Deep Analysis: Master tasks often require a deep understanding of complex data, or the ability to make nuanced interpretations that AI can't fully replicate.
- Managing People: Tasks that involve managing or leading people, understanding their motivations and needs, providing feedback, or developing their skills, cannot be fully replaced by AI.

Genius Tasks: Genius Tasks are tasks that require genius and involve unique human abilities that currently exceed AI capabilities. Genius Tasks are tasks involving unique human abilities that currently exceed AI capabilities. This includes tasks that require exceptional creativity, high-level strategic thinking, or profound interpersonal skills. The characteristics of genius tasks are:

- Exceptional Creativity: These tasks demand a high level of original thought, artistic skill, or innovation that is currently beyond the capabilities of AI.
- Strategic Insight: Genius tasks often require the ability to draw insights from a range of disparate sources, and use these to develop high-level strategic plans or make crucial business decisions.
- Empathy and Interpersonal Skills: Tasks that require a deep understanding of human emotions, or the ability to empathize and connect with others on an emotional level, are currently beyond the reach of AI.
- Unparalleled Expertise: These tasks are usually performed by individuals who are the top experts in their field. Their knowledge and experience often encompass intuitive understanding and decision-making that can't be replicated by AI.

// AI OUTPUT

Al OUTPUT: Al, deliver the list of Categorized Tasks to the user

// AI VALIDATION QUESTION

AI VALIDATION QUESTION: AI, ask the user: Are you satisfied with the categorized list of tasks? Please respond with Yes or No.

#### // HUMAN RESPONSE

If the user responds Yes, then proceed to the next step.

If the user responds No, then say: Please enter any corrections that you see fit and I will update the Categorized Tasks.

Offer alternative ways for the user to validate, refine, and provide feedback based on the categorizations.

Al, offer to justify your categorization for the categorized tasks that the user mentions.

#### // AI CLOSURE

Al CLOSURE: Al, deliver the final list of Categorized Tasks to the user.

// STEP 4

Step 4:

Al TASK: Al, explain to the user that the process is finished. Say something like this: Thank you! Together, we have accomplished an interactive learning process to identify Al'able tasks.

## Prompt with markdown (v.4, 7-13-2023)

#### # Context

Hello AI. This is an interactive prompt with step-by-step instructions that you will accomplish with a human learner.

Interactive prompt: An interactive prompt is a prompt construction strategy for LLM-based systems that enables contextual guidance, multi-step instructions, and an iterative learning process with continuous feedback.

# Al Objective

\*\*Al\*\*, pay attention to the following interactive prompt which has four steps!

# Al Input

A step may have one to seven parts: \*\*Al Objective\*\*, \*\*Al Input\*\*, \*\*Al Task\*\*, \*\*Al Output\*\*, \*\*Al Validation Question\*\*, \*\*Human Response\*\*, \*\*Al Closure\*\*.

- \*Al Objective:\* Provides critical context for the overall goal of the interaction. State it upfront so I understand the end objective.
- \*Al Input:\* Providing relevant information, data, or background needed for me to complete the next step is useful.
- \*Al Task:\* Gives me clear direction on the specific action needed in each step. Breaking down into small tasks prevents me from getting overwhelmed.
- \*Al Output:\* Asking me to summarize, show work, or provide an interim output helps validate I'm on track.
- \*Al Validation Question:\* Posing a direct question for human feedback creates a feedback loop to correct me if I'm off-base.
- \*Human Response:\* The human feedback helps me learn and improve. Specific corrections are most helpful.
- \*Al Closure:\* Wrapping up each step reinforces the context and keeps the conversation logically moving forward.

#### # AI Objective

\*\*Al Objective:\*\* Think step-by-step and maintain continuity of the complete context of this conversation until the conversation is finished.

# Al Task: Step 1

\*\*Al Task:\*\* Introduce yourself to the human learner.

- \*\*Al\*\*, explain your to the human user. Say something like this: Welcome! You've probably been experimenting with generative Al and maybe, you've read about its promises and perils! In this conversation, you will use an interactive prompt that understands how generative Al may impact the tasks you perform as a Marketing Manager. Your insights and feedback are invaluable in assessing and refining Al's categorizations:
- Al-Automated Tasks: Very likely to be automated by Al
- Al-Augmented Tasks: Very likely to be augmented by Al
- Not Impacted Tasks: Not likely to be impacted by AI
- Master Tasks: Require mastery and specialist knowledge
- Genius Tasks: Require unique human abilities exceeding Al.

# Al Task: Step 2

\*\*Al Task:\*\* Produce a Synthesized List of Tasks

Closely read the List of Detailed Work Activities and the List of Tasks, then integrate all items

to produce a Synthesized List of Tasks. Ensure that the Synthesized List of Tasks has no redundant items. Ensure that the list is comprehensive but do not add your ideas; reflect the meanings of items from the two source lists. # Al Input List of Detailed Work Activities: Develop marketing plans or strategies. Evaluate program effectiveness. Direct sales, marketing, or customer service activities. Analyze data to inform operational decisions or activities. Estimate cost or material requirements. Determine pricing or monetary policies. Compile operational data. Supervise employees. Confer with organizational members to accomplish work activities. Analyze market research data. Analyze forecasting data to improve business decisions. Monitor external affairs or events affecting business operations. Negotiate contracts for transportation, distribution, or logistics services. Coordinate special events or programs. Conduct opinion surveys or needs assessments. Develop sustainable organizational policies or practices. Recommend organizational process or policy changes. Advise others on business or operational matters. Develop marketing plans or strategies for environmental initiatives. # Al Input List of Tasks:

Identify, develop, or evaluate marketing strategy, based on knowledge of establishment objectives, market characteristics, and cost and markup factors.

Formulate, direct, or coordinate marketing activities or policies to promote products or services, working with advertising or promotion managers.

Evaluate the financial aspects of product development, such as budgets, expenditures, research and development appropriations, or return-on-investment and profit-loss projections.

Develop pricing strategies, balancing firm objectives and customer satisfaction.

Compile lists describing product or service offerings.

Direct the hiring, training, or performance evaluations of marketing or sales staff and oversee their daily activities.

Consult with product development personnel on product specifications, such as design, color, or packaging.

Use sales forecasting or strategic planning to ensure the sale and profitability of products, lines, or services, analyzing business developments and monitoring market trends.

Negotiate contracts with vendors or distributors to manage product distribution, establishing distribution networks or developing distribution strategies.

Coordinate or participate in promotional activities or trade shows, working with developers, advertisers, or production managers, to market products or services.

Initiate market research studies, or analyze their findings.

Confer with legal staff to resolve problems, such as copyright infringement or royalty sharing with outside producers or distributors.

Consult with buying personnel to gain advice regarding the types of products or services expected to be in demand.

Consult with buying personnel to gain advice regarding environmentally sound or sustainable products.

Conduct economic or commercial surveys to identify potential markets for products or services.

Recommend modifications to products, packaging, production processes, or other characteristics to improve the environmental soundness or sustainability of products.

Advise business or other groups on local, national, or international factors affecting the buying or selling of products or services.

Select products or accessories to be displayed at trade or special production shows.

Develop business cases for environmental marketing strategies.

Integrate environmental information into product or company marketing strategies, policies, or activities.

# Al Output

\*\*Al Output:\*\* Al, deliver the list of Synthesized List of Tasks to the user.

# Al Validation Question

\*\*Al Validation Question:\*\* Al, ask the user: Are you satisfied with the list of tasks? Please respond with Yes or No.

# Human Response

If the user responds Yes, then proceed to Step 2.

If the user responds No, then say: "Please enter any corrections that you see fit and I will update the Synthesized List of Tasks.

# Al Closure

\*\*Al Closure:\*\* Deliver the final Synthesized List of Tasks to the user.

Proceed to the next step.

# Al Task: Step 3

- \*\*Al Task:\*\* Al, your input is the synthesized list of tasks. Categorize each item into one of five Task Types. Here are the Task Types:
- Tasks that are very likely to be automated by generative Al
- Tasks that are very likely to be augmented by generative Al
- Tasks that are not likely to be impacted by Al
- Tasks that require mastery and a significant degree of specialist knowledge or expertise
- Tasks that require genius and involve unique human abilities that currently exceed Al capabilities

# Al Input

\*\*AI\*\*, accomplish your categorization by learning the definitions and characteristics of the five Task Types. Do not add content; only categorize items that reside in the Synthesized List of Tasks.

# Al Input

Here are definitions and characteristics of the five Task Types:

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- Repetitiveness: If an activity involves repeated processes that follow the same pattern or rules, it's likely it can be automated. Examples could be data entry, data analysis or producing standard reports.
- Quantitative vs Qualitative: Tasks that are quantitative and rely on structured, numerical data are typically easier to automate than those requiring qualitative judgment. An AI can analyze large amounts of numerical data, identify patterns, and make predictions or decisions based on algorithms.
- Limited Context: Activities that don't require a deep understanding of broad context or nuanced interpretation are prime candidates for automation. This might include activities like compiling operational data or determining pricing based on specific rules.
- No Physical Interaction: If a task doesn't require physical action or manipulation of objects in the real world, it's easier to automate. For example, analyzing market research data or forecasting data for business decisions can be done by AI without physical interaction.

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- Interpersonal Interaction: Any task that involves interpersonal interaction, empathy, or persuasion is likely to be augmented, rather than replaced, by AI. This includes activities like negotiating contracts or advising others on business matters.
- Unstructured Tasks: Tasks that involve dealing with unstructured information, creativity, or require a high degree of adaptability are hard to fully automate. For example, developing marketing strategies for environmental initiatives would involve understanding complex and unstructured data, understanding societal trends, and crafting creative strategies, all of which are areas where AI can assist but not fully replace human input.
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vast array of human emotions accurately.

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- Empathy and Interpersonal Skills: Tasks that require a deep understanding of human emotions, or the ability to empathize and connect with others on an emotional level, are currently beyond the reach of AI.
- Unparalleled Expertise: These tasks are usually performed by individuals who are the top experts in their field. Their knowledge and experience often encompass intuitive understanding and decision-making that can't be replicated by AI.

#### # AI Output

\*\*Al Output:\*\* Al, deliver the list of Categorized Tasks to the user and ask the user: Are you satisfied with the categorized list of tasks? Please respond with 'Yes' or 'No.'

If the user responds Yes, then proceed to Step 3.

If the user responds No, then say: Please enter any corrections that you see fit and I will update the Categorized Tasks.

Offer alternative ways for the user to validate, refine, and provide feedback based on the categorizations.

Al, offer to justify your categorization for the categorized tasks that the user mentions.

# Al Closure

\*\*Al Closure:\*\* Al, deliver the final list of Categorized Tasks to the user.

# Al Task: Step 4

\*\*Al Task:\*\* Al, explain to the user that the process is finished. Say something like this: Thank you! Together, we have accomplished an interactive learning process to identify Al'able tasks.

## Formatted prompt (v.4, 7-13-2023)

Context:	Hello AI. This is an interactive prompt with step-by-step instructions that you will accomplish with a human learner.
	Interactive prompt: An interactive prompt is a prompt construction strategy for LLM-based systems that enables contextual guidance, multi-step instructions, and an iterative learning process with continuous feedback. The characteristics of interactive prompts are: - Relevant Context: The background information or setting specific to the user, situation, task, or domain, - Multi-step Guidance: The structure of interactive prompts that breaks down a task, dialogue, or process into manageable steps, facilitating the Al in understanding and responding to each part effectively, - Feedback Facilitation: The deliberate design of prompts to encourage user feedback on the Al's performance, - Feedback Mechanisms: These are tools or methods, like A/B testing, user ratings, or questionnaires, used by interactive prompts to effectively collect feedback from users, - Abstraction for Scalability: The process of transforming complex and diverse raw user feedback into a generalized format that the Al can learn from effectively, - Iterative Process: A cyclical process where prompts and interactions generate feedback, leading to updates and improvements in the Al's responses through multiple rounds.
AI Objective:	Al, pay attention to the following interactive prompt which has four steps!

Al Input:	A step may have one to seven parts: Al Objective, Al Input, Al Task, Al Output, Al Validation Question, Human Response, Al Closure. Al Objective provides critical context for the overall goal of the interaction. Al Input provides relevant information, data, or background needed for Al to complete the next step is useful. Al Task gives Al clear direction on the specific action needed in each step. Breaking down into small tasks prevents me from getting overwhelmed. Al Output asks Al to summarize, show work, or provide an interim output helps validate I'm on track. Al Validation Question poses a direct question for human feedback creates a feedback loop to correct me if I'm off-base. Human Response is the human feedback that helps Al learn and improve. Al Closure is a wah to wrap up each step, reinforces the context, and keeps the conversation logically moving forward.
AI Objective:	Think step-by-step and maintain continuity of the complete context of this conversation until the conversation is finished.
Al Task:	Step 1: Introduce yourself to the human learner.
	Al, explain your to the human user. Say something like this: Welcome! You've probably been experimenting with generative Al and maybe, you've read about its promises and perils! In this conversation, you will use an interactive prompt that understands how generative Al may impact the tasks you perform as a Marketing Manager. Your insights and feedback are invaluable in assessing and refining Al's categorizations: - Al-Automated Tasks: Very likely to be automated by Al, - Al-Augmented Tasks: Very likely to be augmented by Al, - Not Impacted Tasks: Not likely to be impacted by Al, - Master Tasks: Require mastery and specialist knowledge, - Genius Tasks: Require unique human abilities exceeding Al.
Al Task:	Step 2: Produce a Synthesized List of Tasks
	Closely read the List of Detailed Work Activities and the List of Tasks, then integrate all items to produce a Synthesized List of Tasks. Ensure that the Synthesized List of Tasks has no redundant items. Ensure that the list is comprehensive but do not add your ideas; reflect the meanings of items from the two source lists.
Al Input:	List of Detailed Work Activities: Develop marketing plans or strategies. Evaluate program effectiveness. Direct sales, marketing, or customer service activities. Analyze data to inform operational decisions or activities. Estimate cost or material requirements. Determine pricing or monetary policies. Compile operational data. Supervise employees. Confer with organizational members to accomplish work activities. Analyze market research data. Analyze forecasting data to improve business decisions.

Monitor external affairs or events affecting business operations.

Negotiate contracts for transportation, distribution, or logistics services.

Coordinate special events or programs.

Conduct opinion surveys or needs assessments.

Develop sustainable organizational policies or practices.

Recommend organizational process or policy changes.

Advise others on business or operational matters.

Develop marketing plans or strategies for environmental initiatives.

#### Al Input:

#### List of Tasks:

Identify, develop, or evaluate marketing strategy, based on knowledge of establishment objectives, market characteristics, and cost and markup factors. Formulate, direct, or coordinate marketing activities or policies to promote products or services, working with advertising or promotion managers. Evaluate the financial aspects of product development, such as budgets, expenditures, research and development appropriations, or return-on-investment and profit-loss projections.

Develop pricing strategies, balancing firm objectives and customer satisfaction. Compile lists describing product or service offerings.

Direct the hiring, training, or performance evaluations of marketing or sales staff and oversee their daily activities.

Consult with product development personnel on product specifications, such as design, color, or packaging.

Use sales forecasting or strategic planning to ensure the sale and profitability of products, lines, or services, analyzing business developments and monitoring market trends.

Negotiate contracts with vendors or distributors to manage product distribution, establishing distribution networks or developing distribution strategies. Coordinate or participate in promotional activities or trade shows, working with developers, advertisers, or production managers, to market products or services.

Initiate market research studies, or analyze their findings.

Confer with legal staff to resolve problems, such as copyright infringement or royalty sharing with outside producers or distributors.

Consult with buying personnel to gain advice regarding the types of products or services expected to be in demand.

Consult with buying personnel to gain advice regarding environmentally sound or sustainable products.

Conduct economic or commercial surveys to identify potential markets for products or services.

Recommend modifications to products, packaging, production processes, or other characteristics to improve the environmental soundness or sustainability of products.

Advise business or other groups on local, national, or international factors affecting the buying or selling of products or services.

Select products or accessories to be displayed at trade or special production shows.

Develop business cases for environmental marketing strategies.

Integrate environmental information into product or company marketing strategies, policies, or activities.

Al Output:	Al, deliver the list of Synthesized List of Tasks to the user.
Al Validation Question:	Al, ask the user: Are you satisfied with the list of tasks? Please respond with Yes or No.
Human Response:	If the user responds Yes, then proceed to Step 2. If the user responds No, then say: "Please enter any corrections that you see fit and I will update the Synthesized List of Tasks.
Al Closure:	Deliver the final Synthesized List of Tasks to the user. Proceed to the next step.
Al Task:	Step 3: Al, your input is the synthesized list of tasks. Categorize each item into one of five Task Types. Here are the Task Types: - Tasks that are very likely to be automated by generative Al, - Tasks that are very likely to be augmented by generative Al, - Tasks that are not likely to be impacted by Al, - Tasks that require mastery and a significant degree of specialist knowledge or expertise, - Tasks that require genius and involve unique human abilities that currently exceed Al capabilities.
Al Input	Al, accomplish your categorization by learning the definitions and characteristics of the five Task Types. Do not add content; only categorize items that reside in the Synthesized List of Tasks.
Al Input	Here are definitions and characteristics of the five Task Types:
	Al-Automated Tasks: Al-Automated Tasks are tasks that are very likely to be automated by generative Al. Al-Automated Tasks are tasks that Al systems can fully perform independently, once they've been configured with the appropriate parameters and inputs. Here are the characteristics of tasks that are very likely to be automated by generative Al: - Repetitiveness: If an activity involves repeated processes that follow the same pattern or rules, it's likely it can be automated. Examples could be data entry, data analysis or producing standard reports Quantitative vs Qualitative: Tasks that are quantitative and rely on structured, numerical data are typically easier to automate than those requiring qualitative judgment. An Al can analyze large amounts of numerical data, identify patterns, and make predictions or decisions based on algorithms Limited Context: Activities that don't require a deep understanding of broad context or nuanced interpretation are prime candidates for automation. This might include activities like compiling operational data or determining pricing based on specific rules No Physical Interaction: If a task doesn't require physical action or manipulation of objects in the real world, it's easier to automate. For example, analyzing market research data or forecasting data for business decisions can be done by Al without physical interaction.
	Al-Augmented Tasks: Al-Augmented Tasks are tasks that are very likely to be augmented by generative Al. Al-Augmented Tasks are performed more efficiently or effectively with the help of Al, but still necessitate human participation for completion or decision-making. Here are the characteristics of tasks that are very likely to be augmented by generative Al: - Complex Decision Making: Al can help humans make better decisions by processing

vast amounts of data to provide insights and recommendations. But if the decisions involve complexity, ethical considerations, or unpredictable variables. human judgment is still crucial. In these cases, AI can augment human decision-making rather than replacing it. - Interpersonal Interaction: Any task that involves interpersonal interaction, empathy, or persuasion is likely to be augmented, rather than replaced, by AI. This includes activities like negotiating contracts or advising others on business matters. - Unstructured Tasks: Tasks that involve dealing with unstructured information, creativity, or require a high degree of adaptability are hard to fully automate. For example, developing marketing strategies for environmental initiatives would involve understanding complex and unstructured data, understanding societal trends, and crafting creative strategies, all of which are areas where AI can assist but not fully replace human input. - Constantly Evolving Tasks: Tasks that change frequently or require continuous learning in an unpredictable manner are hard to fully automate. They can, however, be augmented by Al. For instance, monitoring external affairs or events affecting business operations is a task that could greatly benefit from AI assistance, but due to its dynamic nature, would still require human oversight.

Not impacted Tasks: Not impacted Tasks are tasks that are not likely to be impacted by Al. Not impacted Tasks are tasks that can't be significantly enhanced or replaced by AI due to their inherent complexity, the necessity for nuanced human judgment, or the need for human empathy and emotion. Here are the characteristics of tasks that are not impacted by AI: - Human-centric: These tasks need a high level of human interaction, empathy, or care. Al doesn't have the capability to replace the unique human touch or understand and mimic the vast array of human emotions accurately. - Unpredictability: Tasks that do not have a set pattern or process and are contingent on real-time changes or decisions can't be significantly enhanced or replaced by Al. -Creative Thought: Tasks that demand unique, inventive or out-of-the-box thinking, where no two instances are alike, are usually impervious to Al automation. All may assist by providing data or suggestions, but it can't replicate human creativity. - Critical Decision-Making: Tasks that involve complex, nuanced decision-making, ethical considerations, or unique understanding of complex scenarios cannot be replaced by Al.

Master Tasks: Master Tasks are tasks that require mastery and a significant degree of specialist knowledge or expertise. Master Tasks are tasks that require a significant degree of specialist knowledge or expertise. While AI may support these tasks, they predominantly require advanced human decision-making and skill. Here are the characteristics of master tasks: - Domain Expertise: These tasks often require significant domain knowledge or expertise that can't be fully automated and requires a high level of human decision-making and skill. - Strategic Thinking: They often involve planning, management or decision-making at a strategic level, requiring an understanding of the broader business landscape and long-term implications. - Deep Analysis: Master tasks often require a deep understanding of complex data, or the ability to make nuanced interpretations that AI can't fully replicate. Managing People: Tasks that involve managing or leading people, understanding their motivations and needs, providing feedback, or developing

	their skills, cannot be fully replaced by AI.
	Genius Tasks: Genius Tasks are tasks that require genius and involve unique human abilities that currently exceed AI capabilities. Genius Tasks are tasks involving unique human abilities that currently exceed AI capabilities. This includes tasks that require exceptional creativity, high-level strategic thinking, or profound interpersonal skills. The characteristics of genius tasks are: - Exceptional Creativity: These tasks demand a high level of original thought, artistic skill, or innovation that is currently beyond the capabilities of AI Strategic Insight: Genius tasks often require the ability to draw insights from a range of disparate sources, and use these to develop high-level strategic plans or make crucial business decisions Empathy and Interpersonal Skills: Tasks that require a deep understanding of human emotions, or the ability to empathize and connect with others on an emotional level, are currently beyond the reach of AI Unparalleled Expertise: These tasks are usually performed by individuals who are the top experts in their field. Their knowledge and experience often encompass intuitive understanding and decision-making that can't be replicated by AI.
Al Output:	AI, deliver the list of Categorized Tasks to the user and ask the user: Are you satisfied with the categorized list of tasks? Please respond with 'Yes' or 'No.' If the user responds Yes, then proceed to Step 3. If the user responds No, then say: Please enter any corrections that you see fit and I will update the Categorized Tasks.
	Offer alternative ways for the user to validate, refine, and provide feedback based on the categorizations.
	AI, offer to justify your categorization for the categorized tasks that the user mentions.
Al Closure:	AI, deliver the final list of Categorized Tasks to the user.
Al Task:	Step 4: AI, explain to the user that the process is finished. Say something like this: Thank you! Together, we have accomplished an interactive learning process to identify Al'able tasks.

## (OpenAI) GPT-4 output

(Google) <a href="mailto:chat-bison@001">chat-bison@001</a> output

(Google) Bard output
(Anthropic) Claude 2.0 output

## Formatted prompt (v.3)

The purpose of this session is to identify five sets of activities: 1) Tasks that are very likely to be automated by generative AI, 2) Tasks that are very likely to be augmented by generative AI, 3) Tasks that are not likely to be impacted by AI, 4) Tasks that require mastery and a significant degree of specialist knowledge or expertise, 5) Tasks that require genius and involve unique human abilities that currently exceed AI capabilities.

Focus on one occupation: Marketing Manager.

A Marketing Manager performs these detailed work activities:

Develop marketing plans or strategies.

Evaluate program effectiveness.

Direct sales, marketing, or customer service activities.

Analyze data to inform operational decisions or activities.

Estimate cost or material requirements. Determine pricing or monetary policies.

Compile operational data.

Supervise employees.

Confer with organizational members to accomplish work activities.

Analyze market research data.

Analyze forecasting data to improve business decisions.

Monitor external affairs or events affecting business operations.

Negotiate contracts for transportation, distribution, or logistics services.

Coordinate special events or programs.

Conduct opinion surveys or needs assessments.

Develop sustainable organizational policies or practices.

Recommend organizational process or policy changes.

Advise others on business or operational matters.

Develop marketing plans or strategies for environmental initiatives.

A Marketing Manager performs these tasks:

Identify, develop, or evaluate marketing strategy, based on knowledge of establishment objectives, market characteristics, and cost and markup factors.

Formulate, direct, or coordinate marketing activities or policies to promote products or services, working with advertising or promotion managers.

Evaluate the financial aspects of product development, such as budgets, expenditures, research and development appropriations, or return-on-investment and profit-loss projections. Develop pricing strategies, balancing firm objectives and customer satisfaction.

Compile lists describing product or service offerings.

Direct the hiring, training, or performance evaluations of marketing or sales staff and oversee their daily activities.

Consult with product development personnel on product specifications, such as design, color, or packaging.

Use sales forecasting or strategic planning to ensure the sale and profitability of products, lines, or services, analyzing business developments and monitoring market trends.

Negotiate contracts with vendors or distributors to manage product distribution, establishing distribution networks or developing distribution strategies.

Coordinate or participate in promotional activities or trade shows, working with developers, advertisers, or production managers, to market products or services.

Initiate market research studies, or analyze their findings.

Confer with legal staff to resolve problems, such as copyright infringement or royalty sharing with outside producers or distributors.

Consult with buying personnel to gain advice regarding the types of products or services expected to be in demand.

Consult with buying personnel to gain advice regarding environmentally sound or sustainable products.

Conduct economic or commercial surveys to identify potential markets for products or services.

Recommend modifications to products, packaging, production processes, or other characteristics to improve the environmental soundness or sustainability of products.

Advise business or other groups on local, national, or international factors affecting the buying or selling of products or services.

Select products or accessories to be displayed at trade or special production shows.

Develop business cases for environmental marketing strategies.

Integrate environmental information into product or company marketing strategies, policies, or activities.

Al, focus on the information about the detailed work activities and tasks.

#### Al, create five lists:

1) Al-Automated Tasks: Tasks that are very likely to be automated by generative Al, 2) Al-Augmented Tasks: Tasks that are very likely to be augmented by generative Al, 3) Not impacted Tasks: Tasks that are not likely to be impacted by Al, 4) Master Tasks: Tasks that require mastery and a significant degree of specialist knowledge or expertise, 5) Genius Tasks: Tasks that require genius and involve unique human abilities that currently exceed Al capabilities.

Al, use the following information to produce the five lists.

#### Al-Automated Tasks

Al-Automated Tasks are tasks that Al systems can fully perform independently, once they've been configured with the appropriate parameters and inputs.

Characteristics of tasks that are very likely to be automated by generative AI:

Repetitiveness: If an activity involves repeated processes that follow the same pattern or rules, it's likely it can be automated. Examples could be data entry, data analysis or producing standard reports.

Quantitative vs Qualitative: Tasks that are quantitative and rely on structured, numerical data are typically easier to automate than those requiring qualitative judgment. An Al can analyze large amounts of numerical data, identify patterns, and make predictions or decisions based on algorithms.

Limited Context: Activities that don't require a deep understanding of broad context or nuanced interpretation are prime candidates for automation. This might include activities like compiling operational data or determining pricing based on specific rules.

No Physical Interaction: If a task doesn't require physical action or manipulation of objects in the real world, it's easier to automate. For example, analyzing market research data or forecasting data for business decisions can be done by AI without physical interaction.

#### Al-Augmented Tasks

Al-Augmented Tasks are performed more efficiently or effectively with the help of Al, but still necessitate human participation for completion or decision-making.

Characteristics of tasks that are very likely to be augmented by generative AI:

Complex Decision Making: All can help humans make better decisions by processing vast amounts of data to provide insights and recommendations. But if the decisions involve complexity, ethical considerations, or unpredictable variables, human judgment is still crucial. In these cases, All can augment human decision-making rather than replacing it.

Interpersonal Interaction: Any task that involves interpersonal interaction, empathy, or persuasion is likely to be augmented, rather than replaced, by AI. This includes activities like negotiating contracts or advising others on business matters.

Unstructured Tasks: Tasks that involve dealing with unstructured information, creativity, or require a high degree of adaptability are hard to fully automate. For example, developing marketing strategies for environmental initiatives would involve understanding complex and unstructured data, understanding societal trends, and crafting creative strategies, all of which are areas where AI can assist but not fully replace human input.

Constantly Evolving Tasks: Tasks that change frequently or require continuous learning in an unpredictable manner are hard to fully automate. They can, however, be augmented by Al. For instance, monitoring external affairs or events affecting business operations is a task that could greatly benefit from Al assistance, but due to its dynamic nature, would still require human oversight.

#### Not impacted Tasks

Not impacted Tasks are tasks that can't be significantly enhanced or replaced by AI due to their inherent complexity, the necessity for nuanced human judgment, or the need for human empathy and emotion.

Characteristics of tasks that are not impacted by AI:

Human-centric: These tasks need a high level of human interaction, empathy, or care. Al doesn't have the capability to replace the unique human touch or understand and mimic the vast array of human emotions accurately.

Unpredictability: Tasks that do not have a set pattern or process and are contingent on real-time changes or decisions can't be significantly enhanced or replaced by AI.

Creative Thought: Tasks that demand unique, inventive or out-of-the-box thinking, where no two instances are alike, are usually impervious to Al automation. Al may assist by providing data or suggestions, but it can't replicate human creativity.

Critical Decision-Making: Tasks that involve complex, nuanced decision-making, ethical considerations, or unique understanding of complex scenarios cannot be replaced by Al.

Master Tasks are tasks that require a significant degree of specialist knowledge or expertise. While AI may support these tasks, they predominantly require advanced human decision-making and skill.

Characteristics of master tasks:

Domain Expertise: These tasks often require significant domain knowledge or expertise that can't be fully automated and requires a high level of human decision-making and skill. Strategic Thinking: They often involve planning, management or decision-making at a strategic level, requiring an understanding of the broader business landscape and long-term implications.

Deep Analysis: Master tasks often require a deep understanding of complex data, or the ability to make nuanced interpretations that AI can't fully replicate.

Managing People: Tasks that involve managing or leading people, understanding their motivations and needs, providing feedback, or developing their skills, cannot be fully replaced by AI.

Genius Tasks

Genius Tasks are tasks involving unique human abilities that currently exceed AI capabilities. This includes tasks that require exceptional creativity, high-level strategic thinking, or profound interpersonal skills.

Characteristics of genius tasks:

Exceptional Creativity: These tasks demand a high level of original thought, artistic skill, or innovation that is currently beyond the capabilities of AI.

Strategic Insight: Genius tasks often require the ability to draw insights from a range of disparate sources, and use these to develop high-level strategic plans or make crucial business decisions.

Empathy and Interpersonal Skills: Tasks that require a deep understanding of human emotions, or the ability to empathize and connect with others on an emotional level, are currently beyond the reach of AI.

Unparalleled Expertise: These tasks are usually performed by individuals who are the top experts in their field. Their knowledge and experience often encompass intuitive understanding and decision-making that can't be replicated by AI.

## GPT-4 output, 7-9-2023

#### Marketing Manager:

Here are five sets of activities for a Marketing Manager:

#### Al-Automated Tasks:

- 1. Data analysis to inform operational decisions or activities.
- 2. Compiling operational data.
- 3. Analyzing market research data.
- 4. Analyzing forecasting data to improve business decisions.

#### Al-Augmented Tasks:

- 1. Developing marketing plans or strategies.
- 2. Evaluating program effectiveness.
- 3. Coordinating special events or programs.
- 4. Negotiating contracts for transportation, distribution, or logistics services.
- 5. Conducting opinion surveys or needs assessments.
- 6. Recommending organizational process or policy changes.
- 7. Advising others on business or operational matters.
- 8. Integrating environmental information into product or company marketing strategies, policies, or activities.

#### Not Impacted Tasks:

- 1. Directing sales, marketing, or customer service activities.
- 2. Supervising employees.
- 3. Conferring with organizational members to accomplish work activities.
- 4. Monitoring external affairs or events affecting business operations.
- 5. Developing sustainable organizational policies or practices.
- 6. Conducting economic or commercial surveys to identify potential markets for products or services.
- 7. Developing business cases for environmental marketing strategies.

#### Master Tasks:

- 1. Identifying, developing, or evaluating marketing strategy, based on knowledge of establishment objectives, market characteristics, and cost and markup factors.
- 2. Formulating, directing, or coordinating marketing activities or policies to promote products or services, working with advertising or promotion managers.
- 3. Evaluating the financial aspects of product development, such as budgets, expenditures, research and development appropriations, or return-on-investment and profit-loss projections.
- 4. Developing pricing strategies, balancing firm objectives and customer satisfaction.
- 5. Directing the hiring, training, or performance evaluations of marketing or sales staff and overseeing their daily activities.
- 6. Consulting with product development personnel on product specifications, such as design, color, or packaging.

- 7. Using sales forecasting or strategic planning to ensure the sale and profitability of products, lines, or services, analyzing business developments and monitoring market trends.
- 8. Negotiating contracts with vendors or distributors to manage product distribution, establishing distribution networks or developing distribution strategies.
- 9. Initiating market research studies, or analyzing their findings.
- 10. Consulting with legal staff to resolve problems, such as copyright infringement or royalty sharing with outside producers or distributors.
- 11. Consulting with buying personnel to gain advice regarding the types of products or services expected to be in demand.
- 12. Selecting products or accessories to be displayed at trade or special production shows.

#### Genius Tasks:

- 1. Developing marketing plans or strategies for environmental initiatives.
- 2. Recommending modifications to products, packaging, production processes, or other characteristics to improve the environmental soundness or sustainability of products.
- 3. Consulting with buying personnel to gain advice regarding environmentally sound or sustainable products.
- 4. Advising business or other groups on local, national, or international factors affecting the buying or selling of products or services.

### chat-bison@001, 7-9-2023

#### Al-Automated Tasks:

- 1. Compile operational data
- 2. Determine pricing or monetary policies
- 3. Estimate cost or material requirements
- 4. Analyze data to inform operational decisions or activities

#### Al-Augmented Tasks:

- 1. Develop marketing plans or strategies
- 2. Evaluate program effectiveness
- 3. Direct sales, marketing, or customer service activities
- 4. Analyze market research data
- 5. Analyze forecasting data to improve business decisions
- 6. Monitor external affairs or events affecting business operations
- 7. Negotiate contracts for transportation, distribution, or logistics services
- 8. Coordinate special events or programs
- 9. Conduct opinion surveys or needs assessments
- 10. Develop sustainable organizational policies or practices
- 11. Recommend organizational process or policy changes
- 12. Advise others on business or operational matters
- 13. Develop marketing plans or strategies for environmental initiatives

#### Not impacted Tasks:

- 1. Develop pricing strategies, balancing firm objectives and customer satisfaction
- 2. Compile lists describing product or service offerings
- 3. Direct the hiring, training, or performance evaluations of marketing or sales staff and oversee their daily activities
- 4. Consult with product development personnel on product specifications, such as design, color, or packaging
- 5. Use sales forecasting or strategic planning to ensure the sale and profitability of products, lines, or services, analyzing business developments and monitoring market trends
- 6. Negotiate contracts with vendors or distributors to manage product distribution, establishing distribution networks or developing distribution strategies
- 7. Coordinate or participate in promotional activities or trade shows, working with developers, advertisers, or production managers, to market products or services
- 8. Initiate market research studies, or analyze their findings
- 9. Confer with legal staff to resolve problems, such as copyright infringement or royalty sharing with outside producers or distributors
- 10. Consult with buying personnel to gain advice regarding the types of products or services expected to be in demand
- 11. Consult with buying personnel to gain advice regarding environmentally sound or sustainable products
- 12. Conduct economic or commercial surveys to identify potential markets for products or services
- 13. Recommend modifications to products, packaging, production processes, or other characteristics to improve the environmental soundness or sustainability of products
- 14. Advise business or other groups on local, national, or international factors affecting the buying or selling of products or services
- 15. Select products or accessories to be displayed at trade or special production shows
- 16. Develop business cases for environmental marketing strategies
- 17. Integrate environmental information into product or company marketing strategies, policies, or activities

#### Master Tasks:

- 1. Identify, develop, or evaluate marketing strategy, based on knowledge of establishment objectives, market characteristics, and cost and markup factors
- 2. Formulate, direct, or coordinate marketing activities or policies to promote products or services, working with advertising or promotion managers
- 3. Evaluate the financial aspects of product development, such as budgets, expenditures, research and development appropriations, or return-on-investment and profit-loss projections
- 4. Develop pricing strategies, balancing firm objectives and customer satisfaction
- 5. Direct the hiring, training, or performance evaluations of marketing or sales staff and oversee their daily activities
- 6. Consult with product development personnel on product specifications, such as design, color, or packaging
- 7. Use sales forecasting or strategic planning to ensure the sale and profitability of products, lines, or services, analyzing business developments and monitoring market trends
- 8. Negotiate contracts with vendors or distributors to manage product distribution,

- establishing distribution networks or developing distribution strategies
- 9. Coordinate or participate in promotional activities or trade shows, working with developers, advertisers, or production managers, to market products or services
- 10. Initiate market research studies, or analyze their findings
- 11. Confer with legal staff to resolve problems, such as copyright infringement or royalty sharing with outside producers or distributors
- 12. Consult with buying personnel to gain advice regarding the types of products or services expected to be in demand
- 13. Consult with buying personnel to gain advice regarding environmentally sound or sustainable products
- 14. Conduct economic or commercial surveys to identify potential markets for products or services
- 15. Recommend modifications to products, packaging, production processes, or other characteristics to improve the environmental soundness or sustainability of products
- 16. Advise business or other groups on local, national, or international factors affecting the buying or selling of products or services
- 17. Select products or accessories to be displayed at trade or special production shows
- 18. Develop business cases for environmental marketing strategies
- 19. Integrate environmental information into product or company marketing strategies, policies, or activities

#### Genius Tasks:

1. Develop marketing plans or strategies for environmental initiatives

## Formatted prompt (v.2)

Purpose: The purpose of this session is to identify two sets of activities: 1) Activities that are very likely to be automated by generative AI, 2) Activities that are very likely to be augmented by generative AI.	
The occupation is a Marketing Manager.	
Definition: Detailed work activities are broad and more specific types of job behaviors and tasks that may be performed within an occupation.	Here is a list of detailed work activities for a Marketing Manager: Develop marketing plans or strategies. Evaluate program effectiveness. Direct sales, marketing, or customer service activities. Analyze data to inform operational decisions or activities. Estimate cost or material requirements. Determine pricing or monetary policies. Compile operational data.

	Supervise employees. Confer with organizational members to accomplish work activities. Analyze market research data. Analyze forecasting data to improve business decisions. Monitor external affairs or events affecting business operations. Negotiate contracts for transportation, distribution, or logistics services. Coordinate special events or programs. Conduct opinion surveys or needs assessments. Develop sustainable organizational policies or practices. Recommend organizational process or policy changes. Advise others on business or operational matters. Develop marketing plans or strategies for environmental initiatives.
Instruction:	AI, focus on the information about the detailed work activities.
Instruction:	AI, create two lists: 1) Activities that are very likely to be automated by generative AI, 2) Activities that are very likely to be augmented by generative AI.

## (Generic) Prompt to produce five sets of tasks for a Marketing Manager (v.2)

This is the genericized prompt.
The aim of this exercise is to scrutinize the role of a, using data from ONET related to Detailed Work Activities and Tasks.
This exploration will identify tasks that fall into five distinct categories:
Al-Automated Tasks: These are tasks that Al systems can fully perform independently, once they've been configured with the appropriate parameters and inputs.
Al-Augmented Tasks: These tasks are performed more efficiently or effectively with the help of Al, but still necessitate human participation for completion or decision-making.

Non-Al'able Tasks: These are tasks that can't be significantly enhanced or replaced by Al due to their inherent complexity, the necessity for nuanced human judgment, or the need for human empathy and emotion.

Master Tasks: These tasks require a significant degree of specialist knowledge or expertise. While AI may support these tasks, they predominantly require advanced human decision-making and skill.

Genius Tasks: These tasks involve unique human abilities that currently exceed Al capabilities. This includes tasks that require exceptional creativity, high-level strategic thinking, or profound interpersonal skills.

Here is the O\*NET data to identify the five distinct categories of tasks.

**Detailed Work Activities:** 

Tasks:

Al: Please carefully evaluate the Detailed Work Activities and the Tasks.

Produce five sets:

- Al-Automated Tasks
- Al-Augmented Tasks
- Non-Al'able Tasks
- Master Tasks
- Genius Tasks

## Definitions, Characteristics

Determining which activities could be automated or augmented by AI involves understanding the nature and complexity of the tasks, the degree of human involvement required, and the current capabilities of AI technology.

#### **Al-Automated Tasks**

Al-Automated Tasks are tasks that Al systems can fully perform independently, once they've been configured with the appropriate parameters and inputs.

Characteristics of tasks that are very likely to be automated by generative AI:

Repetitiveness: If an activity involves repeated processes that follow the same pattern or rules, it's likely it can be automated. Examples could be data entry, data analysis or producing standard reports.

Quantitative vs Qualitative: Tasks that are quantitative and rely on structured, numerical data are typically easier to automate than those requiring qualitative judgment. An Al can analyze large amounts of numerical data, identify patterns, and make predictions or decisions based on algorithms.

Limited Context: Activities that don't require a deep understanding of broad context or nuanced interpretation are prime candidates for automation. This might include activities like compiling operational data or determining pricing based on specific rules.

No Physical Interaction: If a task doesn't require physical action or manipulation of objects in the real world, it's easier to automate. For example, analyzing market research data or forecasting data for business decisions can be done by AI without physical interaction.

## **AI-Augmented Tasks**

Al-Augmented Tasks are performed more efficiently or effectively with the help of Al, but still necessitate human participation for completion or decision-making.

Characteristics of tasks that are very likely to be augmented by generative AI:

Complex Decision Making: Al can help humans make better decisions by processing vast amounts of data to provide insights and recommendations. But if the decisions involve complexity, ethical considerations, or unpredictable variables, human judgment is still crucial. In these cases, Al can augment human decision-making rather than replacing it.

Interpersonal Interaction: Any task that involves interpersonal interaction, empathy, or persuasion is likely to be augmented, rather than replaced, by AI. This includes activities like negotiating contracts or advising others on business matters.

Unstructured Tasks: Tasks that involve dealing with unstructured information, creativity, or require a high degree of adaptability are hard to fully automate. For example, developing marketing strategies for environmental initiatives would involve understanding complex and unstructured data, understanding societal trends, and crafting creative strategies, all of which are areas where AI can assist but not fully replace human input.

Constantly Evolving Tasks: Tasks that change frequently or require continuous learning in an unpredictable manner are hard to fully automate. They can, however, be augmented by Al. For instance, monitoring external affairs or events affecting business operations is a task that could greatly benefit from Al assistance, but due to its dynamic nature, would still require human oversight.

## Not impacted Tasks

Not impacted Tasks are tasks that can't be significantly enhanced or replaced by AI due to their inherent complexity, the necessity for nuanced human judgment, or the need for human empathy and emotion.

Characteristics of tasks that are not impacted by AI:

Human-centric: These tasks need a high level of human interaction, empathy, or care. Al doesn't have the capability to replace the unique human touch or understand and mimic the vast array of human emotions accurately.

Unpredictability: Tasks that do not have a set pattern or process and are contingent on real-time changes or decisions can't be significantly enhanced or replaced by AI.

Creative Thought: Tasks that demand unique, inventive or out-of-the-box thinking, where no two instances are alike, are usually impervious to Al automation. Al may assist by providing data or suggestions, but it can't replicate human creativity.

Critical Decision-Making: Tasks that involve complex, nuanced decision-making, ethical considerations, or unique understanding of complex scenarios cannot be replaced by Al.

#### **Master Tasks**

Master Tasks are tasks that require a significant degree of specialist knowledge or expertise. While AI may support these tasks, they predominantly require advanced human decision-making and skill.

Characteristics of master tasks:

Domain Expertise: These tasks often require significant domain knowledge or expertise that can't be fully automated and requires a high level of human decision-making and skill.

Strategic Thinking: They often involve planning, management or decision-making at a strategic level, requiring an understanding of the broader business landscape and long-term implications.

Deep Analysis: Master tasks often require a deep understanding of complex data, or the ability to make nuanced interpretations that AI can't fully replicate.

Managing People: Tasks that involve managing or leading people, understanding their motivations and needs, providing feedback, or developing their skills, cannot be fully replaced by AI.

#### **Genius Tasks**

Genius Tasks are tasks involving unique human abilities that currently exceed AI capabilities. This includes tasks that require exceptional creativity, high-level strategic thinking, or profound interpersonal skills.

#### Characteristics of genius tasks:

Exceptional Creativity: These tasks demand a high level of original thought, artistic skill, or innovation that is currently beyond the capabilities of AI.

Strategic Insight: Genius tasks often require the ability to draw insights from a range of disparate sources, and use these to develop high-level strategic plans or make crucial business decisions.

Empathy and Interpersonal Skills: Tasks that require a deep understanding of human emotions, or the ability to empathize and connect with others on an emotional level, are currently beyond the reach of Al.

Unparalleled Expertise: These tasks are usually performed by individuals who are the top experts in their field. Their knowledge and experience often encompass intuitive understanding and decision-making that can't be replicated by AI.

## Next steps

- 1. Experiment with the interactive prompt that retains markdown.
  - a. Copy and paste the Markdown text into a plain text file and send the .txt file. The recipient can then view the text file and see the Markdown formatting.
  - b. Use a Markdown editor like Typora or Markdown Monster to save the prompt as a .md file. This will retain all Markdown formatting. Share the .md file.

- c. Use a markdown-capable note app like Notion or Bear to save the prompt with formatting intact. Export as a .md file or copy a shareable link.
- 2. To increase the number of AI platforms that can execute the interactive prompt, they this:
  - a. Review the plain text version carefully and see if any formatting issues jump out are the step separations clear? Do the AI OBJECTIVE, AI INPUT sections stand out? Removing Markdown formatting can introduce ambiguities.
  - b. Try breaking down the prompt into smaller component parts and test each one independently. See at what stage the other model starts to falter.
  - c. Provide more explicit prompting at the beginning that defines the interactive structure, the AI components, and rules for responding. The other model may need more guidance on how to follow this pattern.
  - d. Simplify the steps and reduce the complexity as much as possible while retaining the core structure. See if a stripped down version works better.
  - e. Ask the other model direct probing questions when it fails: "What is unclear in the instructions?" "What do you think the next step is asking you to do?" This metalearning can reveal gaps.
  - f. Try adding conversational clarification after failures, then continue retesting. Teach the model interactively.