2024 Innovation China Conference 创新中国研讨会 Shanghai, China | 29 April 2024

AI + Materials 材料 | AI + Industrials 工业 | AI + New Energy 新能源

GenAl for KM: Patent Analysis and Automation

Stephane Monsallier CEO @ System in Motion





innovationchinaconference.com

CM Venture Capital



"The most valuable asset of a 21stcentury institution [...] will be its knowledge workers and their productivity."

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"Management Challenges for the 21st Century" 1999 Peter F. DRUCKER









A few misconceptions about GPT (and other LLMs too)...

It is a search engine

It knows everything

It is creative

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t GPT (and other LLMs too)... no, it isn't by itself... no, quite the opposite... at best, debatable





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How WE use generative Al

Daily usage to increase task productivity

Strategy	Mark
Generate an evaluation matrix	E
Generate options	Sc
Apply it to options	Er
List potential risks	P
Generate an action plan	A
Sales	B
List potential industries	Sum
List key pain points	
Phrase how core customer would	C
express the pain point	Iden
Generate portraits of core customers &	Di
PPT illustration (dall-e)	ar
Search for quotes (new bing)	

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- keting
- vent promotion text
- ocial media posts
- mail to offer partnership
- roof reading
- ssisted blog writing
- log picture (dall-e)
- nmarize
- ong article
- ontracts
- tify
- iscrepancies between contracts,
- mendments & work orders



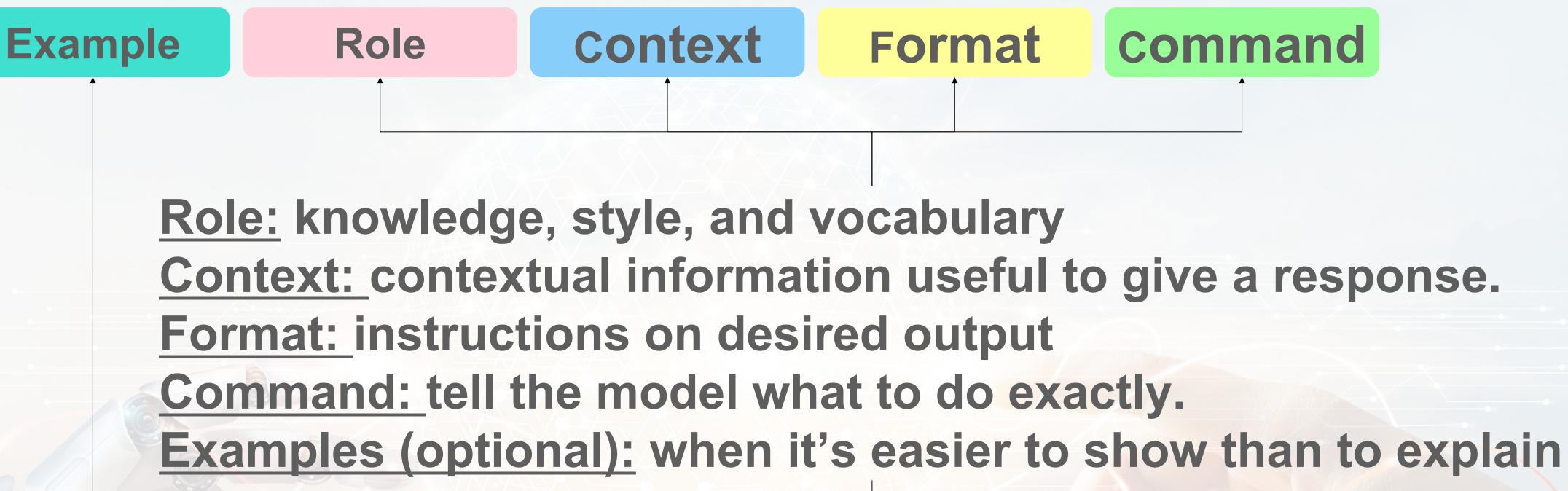
250 use cases of daily work activities







Universal Prompt Framework



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Generative AI can help with the Knowledge Management dilemma

Structure the knowledge: easy for the machine, not appealing to the user.

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Storytelling:

- pleasing for the user,
- hard for the machine.



Cellulose Nanofiber-Containing Aqueous Dispersion Patent application: 118 pages

System in Motion

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Chat with Documents @

Baidu ERNIE-Bot-4 Azure sim-gpt4

Allows you to upload and preview a file, and ask questions based on its content.

Upload Document

US Patent Application for Cellulose Nanofiber-Containing Aqueous Dispersion Patent Application (Application #20210246273 issued August 12, 2021) - Justia Patents Search.pdf

Cellulose Nanofiber-Containing Aqueous Dispersion

Apr 15, 2019 - Asahi Kasei Kabushiki Kaisha

This invention relates to providing a resin composition and a resin molded article having sufficient mechanical properties and thermal properties, and also having excellent wear resistance and moldability

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🔟 Clear Message

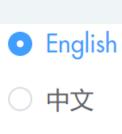
What is this invention about?

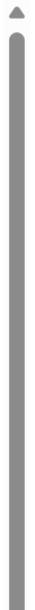
This invention is related to a cellulose nanofiber aqueous dispersion and its dried form, as well as a cellulose nanofiber resin composition and molded resin. The thermoplastic resins used in this invention are lightweight and have excellent processing characteristics, which makes them suitable for a variety of purposes including automobile members, electrical and electronic parts, business machine housings, and precision parts.

The invention addresses the common limitations with resins like inadequate mechanical properties, slidability, thermal stability, and dimensional stability by using composites of resins with different types of inorganic materials. The resin compositions of this invention comprise thermoplastic resins reinforced with inorganic fillers such as glass fibers, carbon fibers, talc, or clay to enhance their properties.

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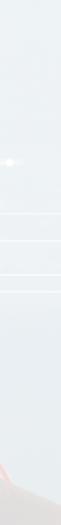














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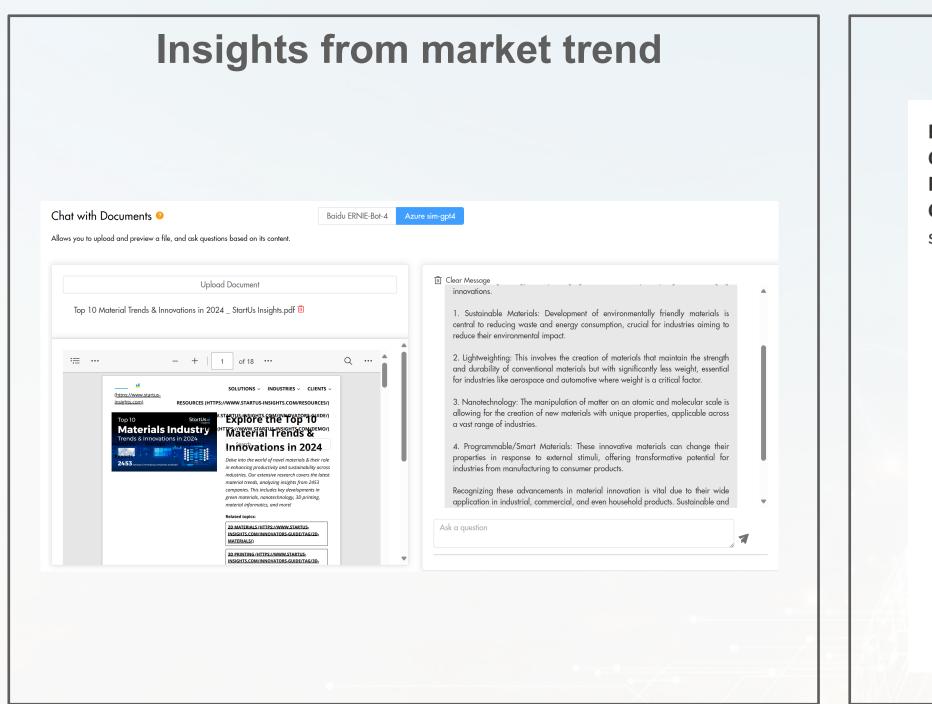
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Role: As an expert in material science **Command**: write Format: the outline of a 5-page white paper Context: on how China would benefit from the development of sustainable material.

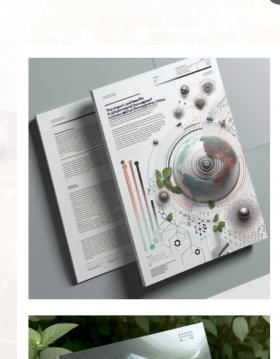
Title: The Impact and Benefits of Sustainable Material Development in China

- Introduction
- I. Brief overview of sustainable materials
- III. Purpose of the paper
- II. Current State of Material Science in China I.
- III. Understanding Sustainable Materials
- - II. The science behind sustainable materials
 - III. Benefits of sustainable materials in general
- IV. Potential Benefits of Sustainable Material Development in China
 - I. Environmental Benefits
 - II. Reduction in pollution and waste
- III. Conservation of natural resources
- V. Economic Benefits

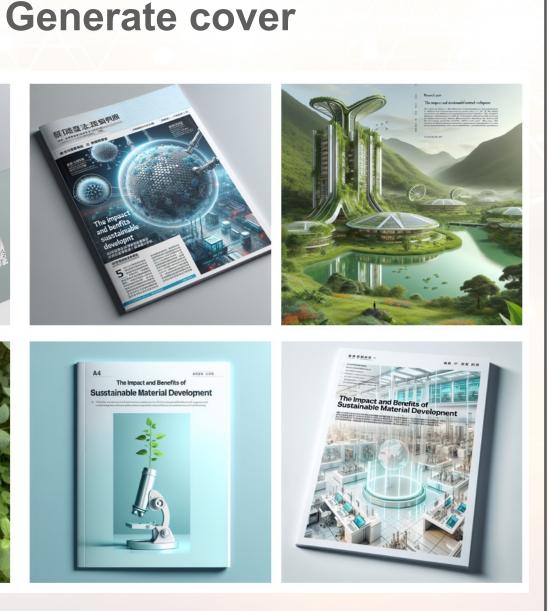
Proof Reading

Role: As a scientific paper proof reader Command: correct **Context**: the following text of any error: [Paste text here]

Public awareness and education are pivotal in promoting sustainable material development in China. By increasing understanding of the environmental, economic, and social benefits of sustainable materials, the public can make more informed choices, driving demand for these products. Educational initiatives can range from school curriculums incorporating material science and sustainability, to public campaigns highlighting the importance of sustainable consumption. This not only fosters a culture of sustainability but also encourages innovation and growth in the sustainable materials sector. Ultimately, an informed and engaged public can significantly accelerate China's transition towards sustainable material development.







Generate outline

II. Importance and relevance of sustainable materials in today's world

Overview of China's current material industry II. Existing challenges and issues in material production and consumption III. China's role in global material production and consumption I. Definition and types of sustainable materials

Generate paragraphs

Role: As an expert in material science **Command**: write Format: general information in 100 words about Context: on Public awareness and education as a Strategies for Promoting Sustainable Material Development in China in the context of The Impact and Benefits of Sustainable Material Development in China

Public awareness and education are pivotal in promoting sustainable material development in China. By increasing understanding of the environmental, economic, and social benefits of sustainable materials, the public can make more informed choices, driving demand for these products. Educational initiatives can range from school curriculums incorporating material science and sustainability, to public campaigns highlighting the importance of sustainable consumption. This not only fosters a culture of sustainability but also encourages innovation and growth in the sustainable materials sector. Ultimately, an informed and engaged public can significantly accelerate China's transition towards sustainable material development.

FACT CHECKING IS STILL THE **AUTHOR'S ACCOUNTABILTY!**

Find a good title

Role: As an expert in material science **Command**: propose Format: 10 titles in 5 words for a white paper **Context:** on The Impact and Benefits of Sustainable Material **Development in China**

- 1. "China's Leap Towards Sustainable Materials"
- "Sustainable Materials: China's Green Revolution"
- "China's Path to Material Sustainability" 3
- "Revolutionizing China with Sustainable Materials" 4
- "Sustainable Materials: China's Economic Catalyst" 5
- "China's Sustainable Material Development Impact" 6.
- "Benefits of China's Material Sustainability"
- "Sustainable Materials: China's Future Blueprint" 8.
- 9. "China's Journey Towards Material Sustainability"
- 10. "Material Sustainability: China's Green Transformation"

Refinement: Give me 2 more examples like 5 and 8

- 11. "Material Sustainability: China's Economic Engine"
- 12. "Sustainable Materials: Blueprint for China's Future"



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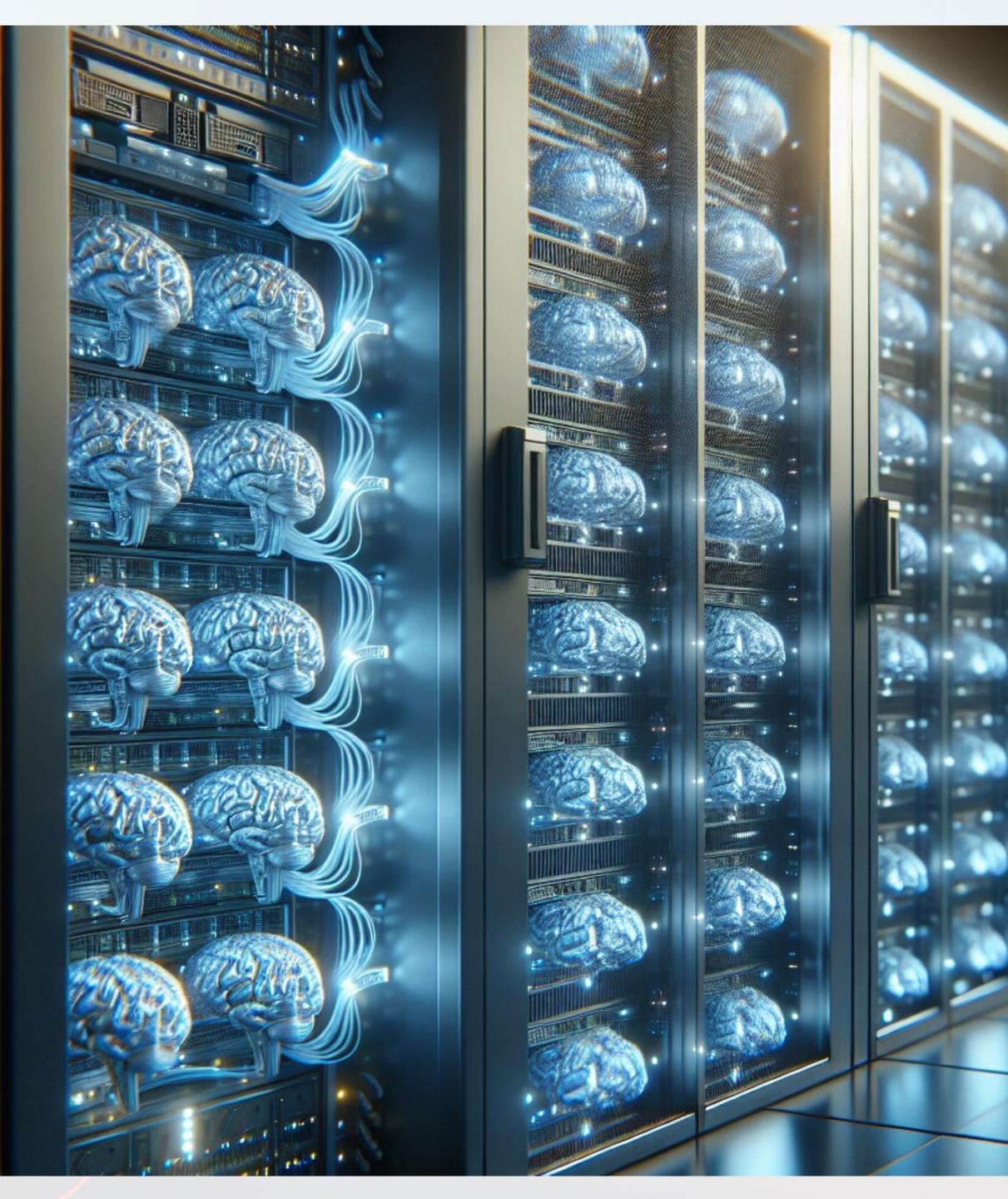
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The benefit of generative Al is fully realized when integrated with the rest of the Information System.



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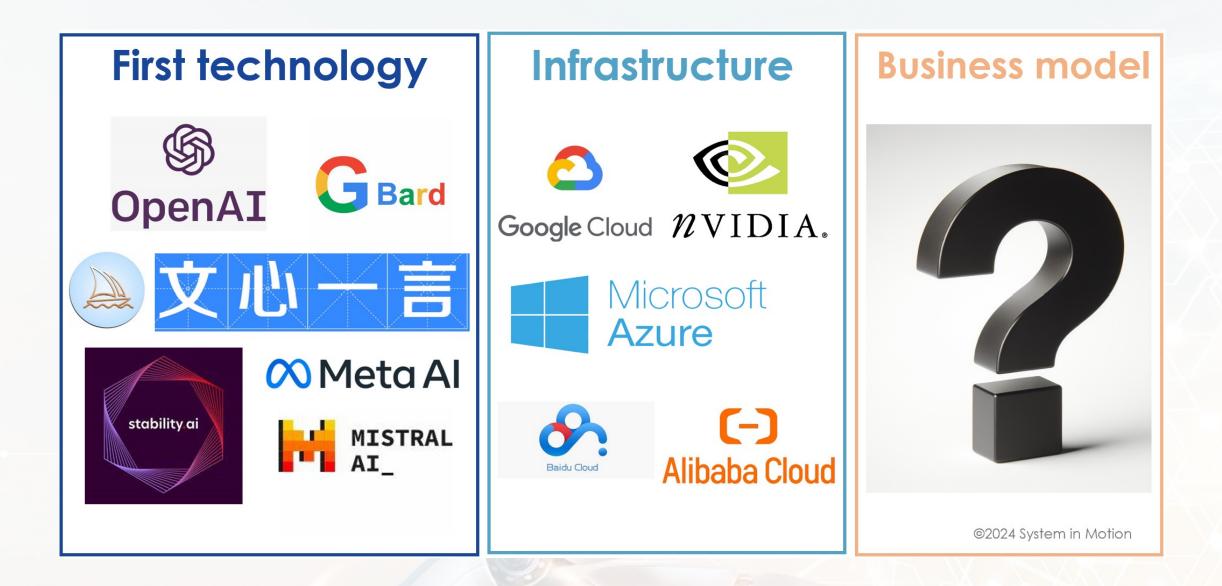
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NEW BUSINESS MODEL

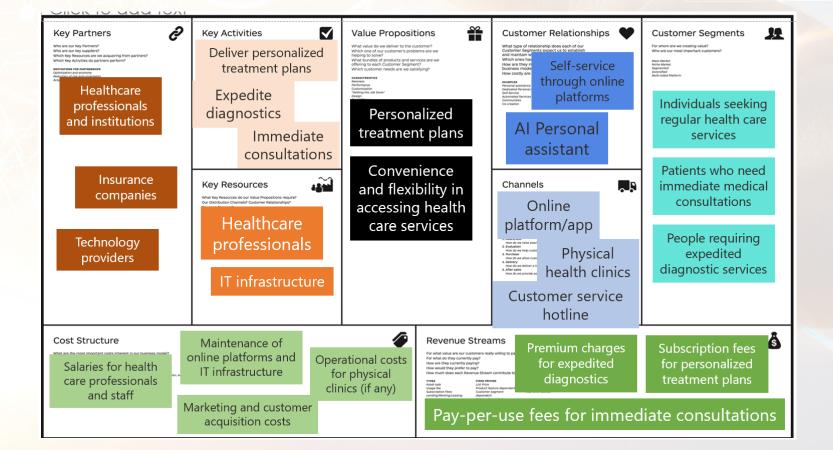


Prompt engineering workflow to go from market trend to **Business Canvas.**

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Which business models can sit on top of the current technology & infrastructure?







Generative AI Forward logic

Technology Enablement

Every customer can have a unique digital experience.

Barrier Removed

Scale customized increasing cost.

System: You are a consultant from a big four.

Prompt: What concrete experiences can I have with Generative AI, as a customer, that companies could not offer to me before, in 50 words?

System: You are a consultant from a big four.

Prompt: Now that customers can enjoy highly personalized experience with generative AI, what is the major barrier for businesses that has been removed, in 20 words?

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experience without

Best Candidate

Al can streamline patent research in material science by automating data extraction, identifying patterns, and predicting trends.

System: You are a consultant from a big four. **Prompt:** In material science, how would scaling customized experience with generate AI benefits patent research, and what would be the best use case to demonstrate it, in 50 words?

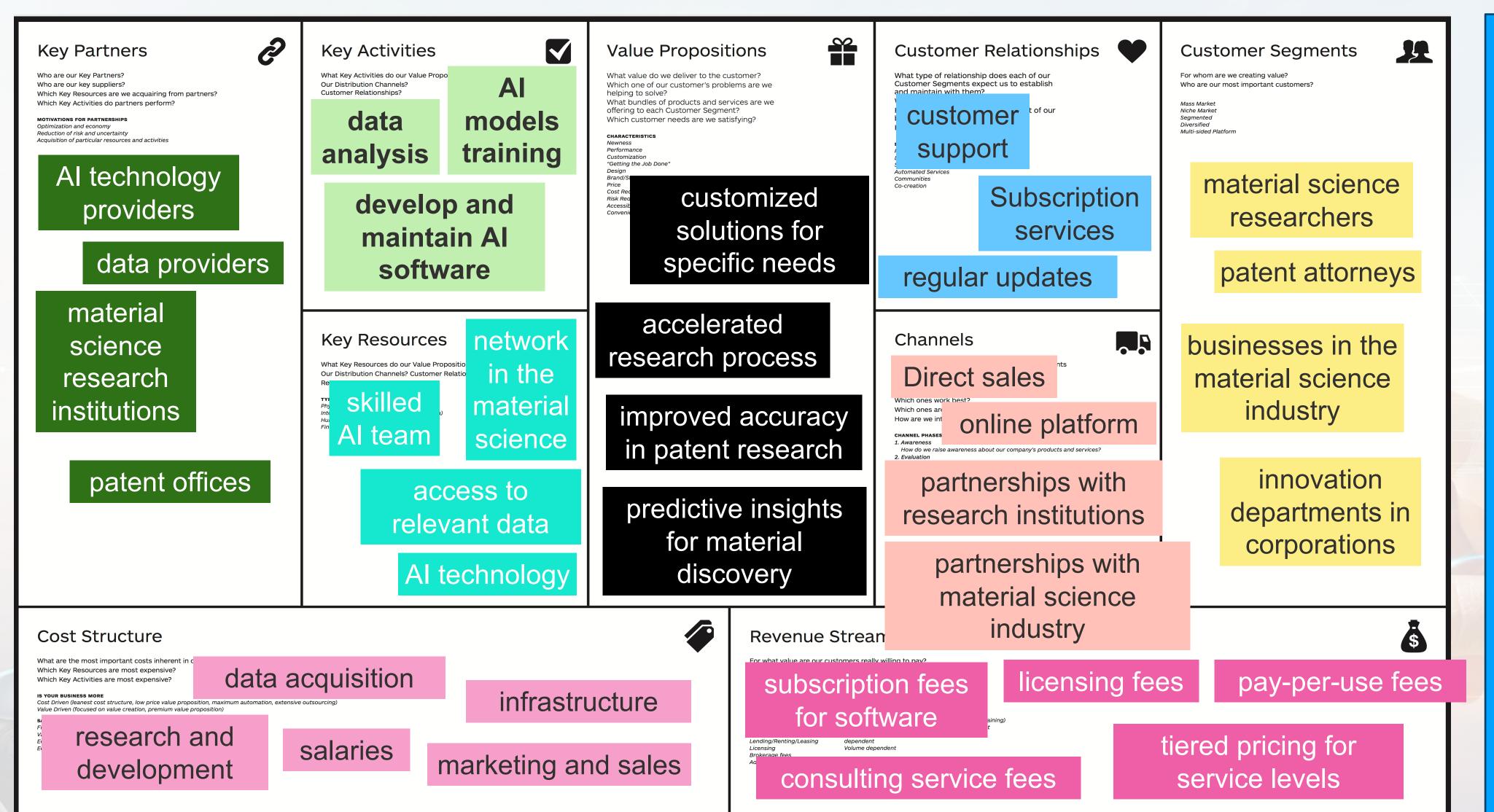








Business Canvas



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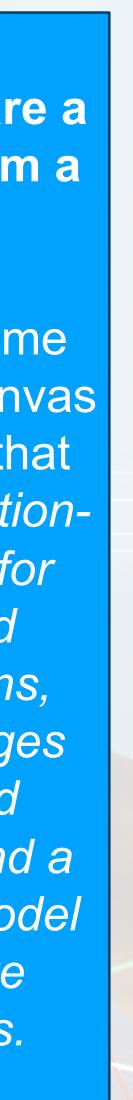
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System: You are a consultant from a big four.

Prompt: Give me the business canvas of a company that offer a subscriptionbased model for personalized treatment plans, premium charges for expedited diagnostics, and a pay-per-use model for immediate consultations.





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250 use cases of daily work activities



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