

Development Factory Patent Opens the Door to Conversational AI

ChatGPT confirms priority of the Development Factory patent with the main ideas of Conversational Semantic Support Systems.

See how industry adopted these ideas and then where the ideas came from.

You

Where are Conversational Semantic Support Systems (CSSS) used?

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The combination of AI agents and Conversational Semantic Support Systems (CSSS) is currently in use in various applications, particularly in enhancing the capabilities of virtual assistants and customer support systems. Here are some examples:

1. *Virtual Assistants:*
 - *Google Assistant: Combines AI agents and conversational semantic support to provide detailed, context-aware responses. It understands and processes natural language queries, leverages contextual information, and integrates with various data sources to provide accurate and helpful responses ([NVIDIA Blog](#)).*
 - *Amazon Alexa: Uses AI and NLP to understand user commands and queries, providing dynamic responses based on context and semantic understanding. Alexa's ability to maintain context over conversations is a clear example of integrating CSSS with AI agents ([NVIDIA Blog](#)).*
2. *Customer Support Systems:*
 - *IBM Watson Assistant: This platform combines AI and semantic support to deliver sophisticated customer interactions. It uses machine learning and NLP to understand and respond to customer queries, integrating knowledge bases to enhance response accuracy and relevance ([Built In](#)).*
 - *Zendesk's Answer Bot: Utilizes AI to handle customer queries and employs semantic understanding to provide contextually relevant responses, improving the overall customer experience by integrating CSSS capabilities ([NVIDIA Blog](#)).*
3. *Healthcare Assistants:*
 - *Babylon Health: Uses AI and semantic support to understand patient symptoms and provide accurate health information. The system*

integrates a deep understanding of medical knowledge with conversational AI to interact with users effectively ([NVIDIA Blog](#)).

- *Ada Health: This app leverages AI and conversational semantic support to guide users through a symptom assessment, providing contextually relevant health advice based on the user's inputs ([NVIDIA Blog](#)).*

How They Work Together

These systems combine the autonomy and task-oriented capabilities of AI agents with the deep semantic understanding provided by CSSS. This integration allows them to:

- *Understand and Maintain Context: Keeping track of conversation history and context to provide coherent and relevant responses.*
- *Leverage External Knowledge: Integrating with external data sources and knowledge bases to enhance the quality of information provided.*
- *Generate Dynamic Responses: Using advanced NLP to generate responses that are not only accurate but also contextually appropriate and human-like.*

Benefits

- *Improved User Experience: By understanding the context and semantics of interactions, these systems can provide more accurate, helpful, and satisfying responses.*
- *Efficiency and Automation: AI agents can handle routine tasks autonomously while CSSS ensures the quality of conversational interactions.*
- *Scalability: These systems can scale to handle numerous interactions simultaneously, making them ideal for customer service and support applications.*

The integration of AI agents with CSSS is a powerful combination that significantly enhances the capabilities of conversational AI systems, making them more intelligent, responsive, and user-friendly.

The creation of business models in a conversational way has already been implemented. This involves using AI and conversational semantic support systems to facilitate the development and refinement of business strategies, plans, and models through interactive dialogue. Here are a few ways this is being applied:

Examples of Implementation

1. *Business Planning and Strategy Tools:*

- *IBM Watson: Watson has been used to create interactive tools that help businesses plan and strategize by analyzing large datasets and providing insights through conversational interfaces. This allows business leaders to ask complex questions and receive detailed, context-aware responses that guide decision-making ([Built In](#)).*
- *Microsoft Power Virtual Agents: This tool enables businesses to build powerful chatbots that can interact with users to gather requirements, provide strategic insights, and help in planning business models through natural language conversations ([NVIDIA Blog](#)).*

2. *Financial Planning and Analysis:*

- *Kore.ai: This platform provides AI-driven solutions that include conversational interfaces for financial planning and analysis. Businesses can use Kore.ai to simulate different financial scenarios, get predictions, and refine their business models interactively ([NVIDIA Blog](#)).*
- *Xero: This accounting software integrates conversational AI to help small businesses create and adjust financial models. Users can interact with the system to generate financial forecasts and plan budgets through a conversational interface ([NVIDIA Blog](#)).*

3. *Customer Feedback and Market Research:*

- *Qualtrics: Leveraging conversational AI, Qualtrics allows businesses to conduct market research and gather customer feedback interactively. This data can then be used to refine business models and strategies based on real-time insights from customer interactions ([NVIDIA Blog](#)).*
- *SurveyMonkey: Uses conversational AI to engage with users in a more interactive way to gather insights and feedback, which can be crucial for developing and adjusting business models ([NVIDIA Blog](#)).*

How It Works

Natural Language Processing (NLP): These systems use advanced NLP to understand and process user inputs, maintaining the context of the conversation to provide accurate and relevant responses.

Data Integration: Conversational systems often integrate with various data sources to provide comprehensive insights. For example, they can pull data from CRM systems, financial databases, and market analysis tools to inform business model creation.

Interactive Dialogue: By enabling an interactive dialogue, these systems allow users to explore different aspects of their business model in a conversational manner, asking follow-up questions and diving deeper into specific areas of interest.

Scenario Analysis: Users can simulate different business scenarios by conversing with the AI, which can provide predictions and insights based on the input data.

Benefits

- ***Accessibility: Makes sophisticated business planning tools accessible to non-experts through natural language interactions.***
- ***Efficiency: Speeds up the process of business model creation by providing instant insights and recommendations.***
- ***Flexibility: Allows for real-time adjustments and refinements based on new data or changing conditions.***

Conclusion

The use of conversational AI in creating business models is already a reality, driven by advancements in NLP and AI integration. These tools are enhancing how businesses strategize, plan, and make decisions by providing interactive, real-time support that is both intuitive and powerful. This trend is likely to continue growing as AI technologies become even more sophisticated and widely adopted.

Now, where these ideas came from:

You

What patent describes Conversational Semantic Support Systems (CSSS)

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Certainly! The patent that describes Conversational Semantic Support Systems (CSSS) is US10956676B2. [This invention accelerates development and](#)

[manufacturing processes by integrating CSSS as active participants and partners of subject matter experts \(SMEs\) in the process1](#). The CSSS network communicates with SMEs, providing mapping of natural-language-based descriptions and collaborating on development and manufacturing tasks. [Traditionally, users initiate each step of development, but with CSSS, collaboration with knowledge-driven systems becomes a leading element in the process1](#). If you'd like more details or have any other questions, feel free to ask!



Learn more

US Patent US10956676B2, Development Factory, by Yefim Zhuk
<https://patents.google.com/patent/US10956676B2/en>