# Einstein GPT

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What is Einstein GPT?

- Einstein GPT (Generative Pre-trained Transformer) is a conversational AI model developed by Salesforce.

- It is built on **transformer architecture** and designed to assist with a variety of tasks, including but not limited to **customer service, marketing automation, and data analysis**.

- Einstein GPT aims to provide **highly contextual and personalized responses** based on the data it has been trained on.

- Salesforce integrates this technology into their suite of products to enhance customer relationship management (CRM) capabilities, automate tasks, and improve decision-making processes.

- Just like OpenAI's GPT models, Einstein GPT utilizes machine learning algorithms to analyze text and generate human-like responses, but it is particularly fine-tuned for Salesforce ecosystems.
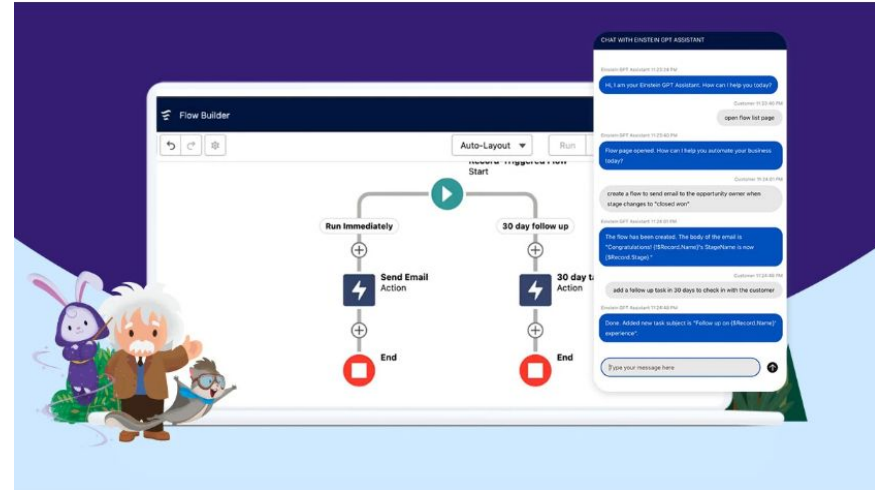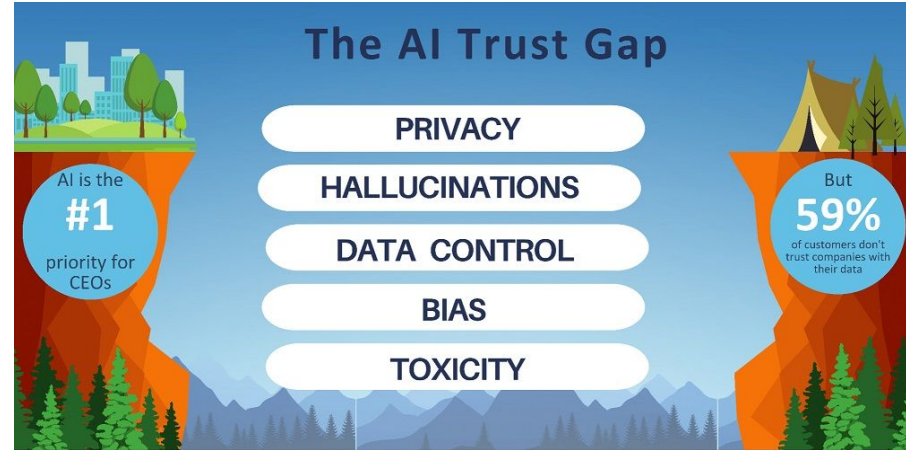
AI Trust Gap

The term "AI Trust Gap" in the context of Salesforce—or enterprise software in general—refers to the disparity between the capabilities of AI technologies and the level of trust that users, stakeholders, or decision-makers have in these systems. Several factors contribute to this gap, and addressing them is crucial for the successful deployment and adoption of AI within an organization. Here are some key aspects:

- Complexity and Understanding
- Ethical and Social Concerns
- Operational Concerns
- Business Alignment
- Salesforce-Specific Issues

To bridge this AI Trust Gap, Salesforce has initiatives like the **Einstein-GPT Trust Layer** and offers a variety of tools for transparency, customization, and governance. The aim is to make AI not just powerful, but also **understandable, accountable, and aligned with both ethical norms and business objectives**.

The AI Trust Gap

AI is the **#1** priority for CEOs

PRIVACY
HALLUCINATIONS
DATA CONTROL
BIAS
TOXICITY

But **59%** of customers don't trust companies with their data

Complexity and Understanding

Lack of Transparency

- Challenge: Complex algorithms often operate in ways that are not easily interpretable by humans, causing concern over how decisions are made.

- Salesforce Approach: Salesforce aims to make AI more understandable by providing features like model explainability, which offers insights into the factors influencing AI decisions.

Technical Barriers

- Challenge: The technical jargon and complexity can be overwhelming for non-technical stakeholders, leading to mistrust.

- Salesforce Approach: Salesforce provides user-friendly interfaces and guided setups to make AI more accessible to people without a technical background.

Ethical and Social Concerns

Bias

- Challenge: AI models can inadvertently introduce or perpetuate biases, leading to unfair or discriminatory outcomes.

- Salesforce Approach: Salesforce works to detect and mitigate biases in AI-generated responses through continuous monitoring and updates.

Data Privacy

- Challenge: Handling sensitive information in a secure manner is a significant concern.

- Salesforce Approach: Salesforce adheres to robust security standards, and the Einstein-GPT Trust Layer can further ensure data security.

Operational Concerns

Accountability

- Challenge: When AI systems fail or make errors, assigning responsibility can be complex.

- Salesforce Approach: Salesforce provides comprehensive logging and audit trails, allowing for traceability and accountability.

Consistency

- Challenge: AI algorithms may produce varying results under different conditions, leading to concerns about reliability.

- Salesforce Approach: Salesforce employs rigorous testing and validation procedures to ensure that AI models are consistent and reliable.

Business Alignment

ROI Uncertainty

- Challenge: Without clear metrics, it's difficult to justify the investment in AI technologies.

- Salesforce Approach: Salesforce offers analytics tools to track the performance and impact of AI, helping organizations understand the ROI.

Organizational Readiness

- Challenge: Implementing AI may require significant changes in organizational structure and culture.

- Salesforce Approach: Salesforce provides a range of support services, from consulting to training, to help organizations prepare for AI adoption.

Salesforce-Specific Issues

Integration

- Challenge: Existing Salesforce implementations may not easily accommodate new AI functionalities.

- Salesforce Approach: Salesforce focuses on seamless integrations, ensuring that Einstein AI features can be easily added to existing Salesforce environments.

Customization

- Challenge: Organizations often have unique needs that generic AI solutions may not address.

- Salesforce Approach: Salesforce allows for extensive customization, enabling organizations to tailor AI functionalities to their specific requirements.

Einstein-GPT Trust Layer

The Einstein-GPT Trust Layer is a **Salesforce-specific concept** that relates to the integration of OpenAI's GPT (Generative Pre-trained Transformer) models with Salesforce's Einstein AI platform. The trust layer serves as an **intermediary between the GPT model and the Salesforce ecosystem**, ensuring that the AI-generated content **aligns with a company's policies, legal requirements, and ethical standards**. Here are some key features and functions of the Einstein-GPT Trust Layer:

- Compliance and Governance
- Ethical Considerations
- Customization and Control
- User Experience

In summary, the Einstein-GPT Trust Layer serves as a safeguard and customizing mechanism when integrating GPT models into the Salesforce platform, ensuring that the output not only meets business needs but also complies with legal and ethical standards.

Stored Data in Data Cloud

Databases, documents, files

Raw & field-level access controls

Einstein GPT Trust Layer

Secure data retrieval
Dynamic grounding
Data masking
Toxicity detection
Auditing
Zero retention

Learned Data

Large language models

No control over recall
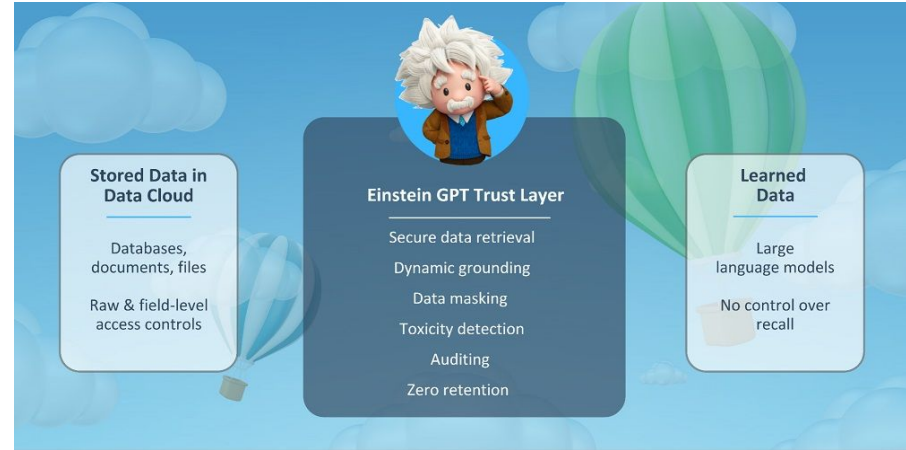
Prompt: A piece of text that is used to guide the generation of text. It can be as simple as a single word or phrase, or it can be a more complex set of instructions.

Dynamic Grounding: A technique in natural language processing that allows a model to understand the context of a word or phrase based on the surrounding text. This is in contrast to **static grounding**, which relies on a pre-defined dictionary or thesaurus to map words to their meanings.

Data Masking: Data masking is a process of replacing sensitive data with non-sensitive data, also known as placeholders, to protect the confidentiality of the data.

Toxicity: In the context of generative AI, toxicity refers to the production of harmful or offensive content.
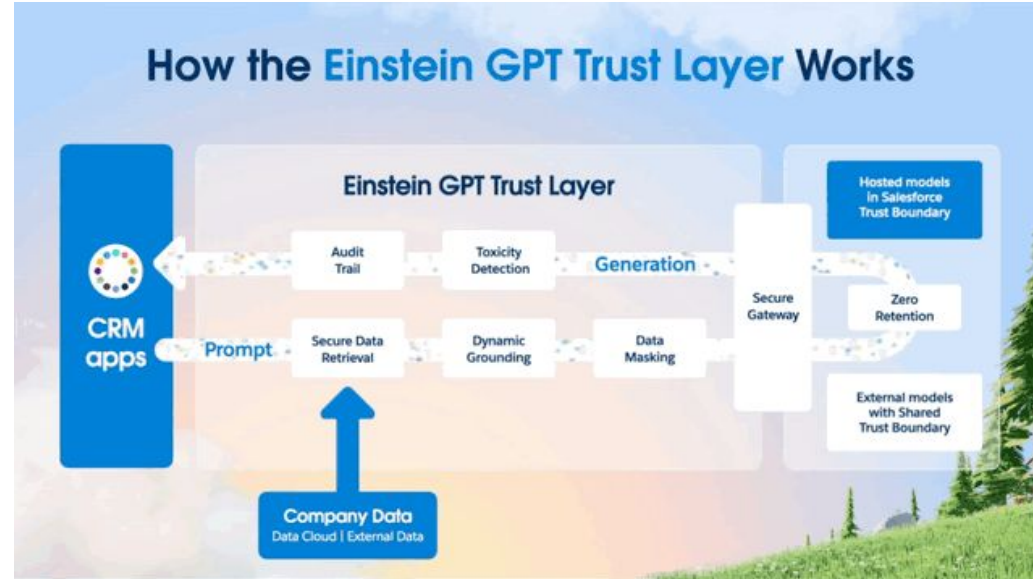
How the **Einstein GPT Trust Layer** Works

Einstein-GPT Trust Layer (continued...)

Compliance and Governance

- Data Security: The trust layer ensures that sensitive data is not compromised, adhering to Salesforce's robust security standards.

- Audit Trails: The layer provides traceability by logging interactions, which can be useful for compliance and governance.

Ethical Considerations

- Bias Mitigation: Salesforce often incorporates features to detect and mitigate biases in AI-generated responses, ensuring that the AI upholds ethical standards.

- Transparency: The trust layer can offer explanations for AI decisions, making it easier for users to understand how a particular output was generated.

Einstein-GPT Trust Layer (continued...)

Customization and Control

- Business Rules: Companies can implement their specific business logic, rules, and constraints within the trust layer.

- Tuning: It allows for fine-tuning of the AI model's behavior to align with a company's specific needs and requirements.

User Experience

- Content Filtering: The trust layer can filter out inappropriate or irrelevant content to ensure that the AI-generated responses are in line with corporate policies.

- Quality Assurance: Before the AI-generated content reaches the end-user, it can be vetted to ensure accuracy and relevance.

Einstein Co-Pilot

Einstein Co-Pilot is a feature within Salesforce's Einstein AI platform designed to assist users by automating repetitive tasks and offering intelligent suggestions. It acts as a virtual assistant that aims to enhance productivity and decision-making by leveraging machine learning, natural language processing, and other AI technologies. Here are some of the key functionalities and features of Einstein Co-Pilot:

- Task Automation
- Intelligent Suggestions
- Contextual Awareness
- Integration and Customization
- Voice Interface
- Collaboration Features

In summary, Einstein Co-Pilot serves as an intelligent assistant within the Salesforce ecosystem, designed to automate tasks, offer smart recommendations, and generally make life easier for Salesforce users.
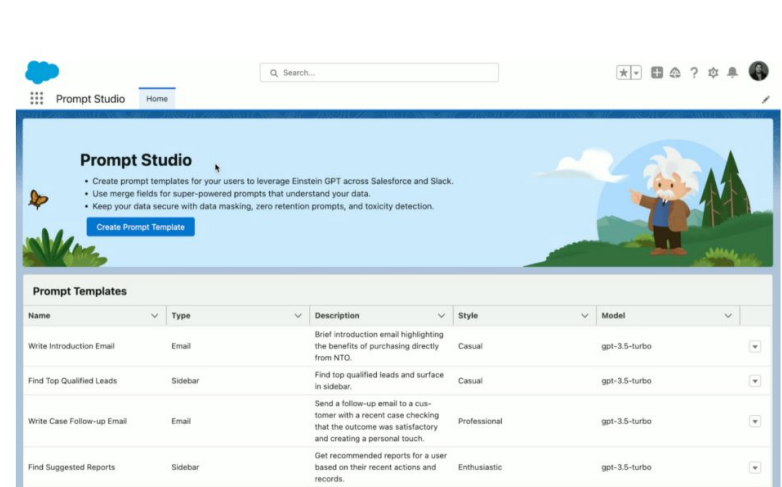
Copilot Studio

Einstein Copilot studio is a suite of tools that helps businesses build and deploy AI-powered applications. It includes three components:

- Prompt Builder
- Skills Builder
- Model Builder
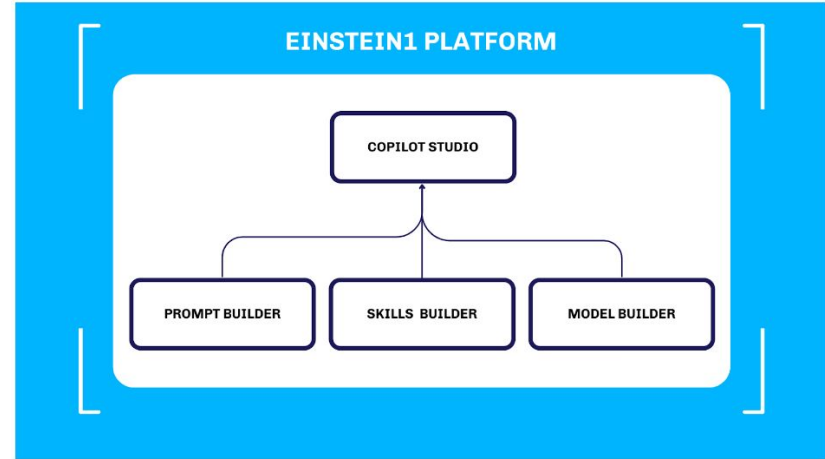
Prompt Builder

- Einstein GPT Prompt Builder is a feature within Einstein GPT Copilot Studio that simplifies the task of crafting effective prompts for conversational AI models.

- It provides a guided, step-by-step interface for users to create and test various query prompts, thereby helping to refine the model's responses.

- The tool offers real-time preview and feedback, enabling users to immediately see how the AI model will respond to the prompts, facilitating rapid iterations and improvements.

- It supports a range of prompt types, including questions, commands, and statements, to cover a broad spectrum of conversational scenarios specific to business needs.

- Users can also set context and other variables, helping Einstein GPT to deliver more relevant and accurate responses based on situational awareness.

- The Prompt Builder is designed to be accessible to users with varying levels of technical expertise, making it easy for both developers and business users to participate in model training and testing.

- It allows for the easy export and import of prompts, facilitating collaboration and sharing across different teams within an organization.

Skills Builder

- Einstein GPT Skills Builder is a specialized tool within the Einstein GPT Copilot Studio designed for the creation and management of skill sets for Einstein GPT models.

- It allows users to define specific skills or capabilities that the conversational AI model should possess, such as appointment scheduling, product recommendations, or customer service queries.

- The tool features a drag-and-drop interface, making it easy to assemble and organize different skill components, without the need for extensive coding.

- Users can customize the logic and flow of conversations by setting conditions, triggers, and actions for each skill, providing a more context-aware and effective interaction experience.

- It offers a library of pre-built skill templates for common business scenarios, allowing for rapid development and deployment of conversational solutions.

- Supports integration with Salesforce data and external APIs, enabling the AI model to make data-driven decisions and provide more accurate and personalized responses.

- Einstein GPT Skills Builder includes testing and debugging functionalities, so users can validate the efficacy of the designed skills before deployment.

- The tool also comes with analytics and monitoring features to track the performance and utilization of the skills, which aids in the ongoing optimization and refinement of the conversational AI model.
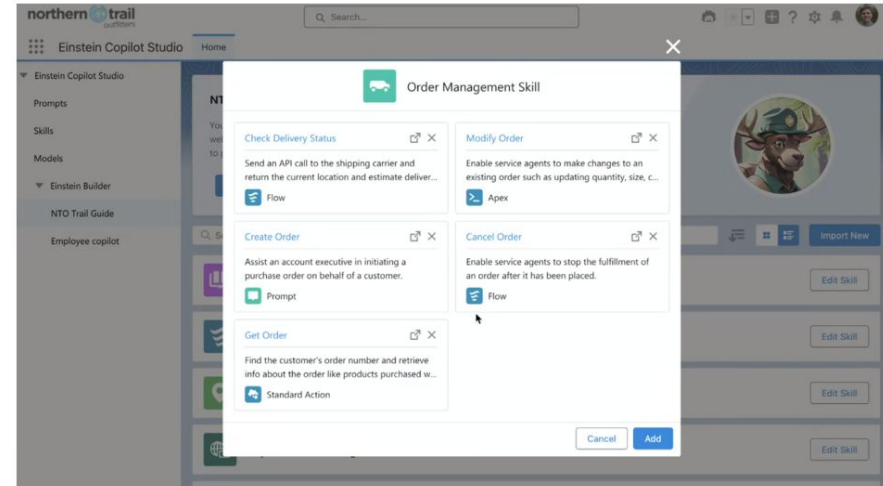
Model Builder

- Einstein GPT Model Builder is a component of the Einstein GPT Copilot Studio focused on constructing and fine-tuning conversational AI models tailored to specific business needs.

- The tool offers a streamlined interface for importing training data, including both structured and unstructured text, to adapt the base Einstein GPT model to specialized use-cases.

- Users have the ability to configure various model parameters such as learning rate, token length, and other hyperparameters, offering control over the model's complexity and accuracy.

- It provides features for data preprocessing and annotation, enabling users to clean and label the training data for more effective model learning.

- The Model Builder supports iterative training, allowing users to update and refine the model based on real-world performance metrics and feedback.

- Users can also create multiple versions of a model to test different configurations, enabling A/B testing and facilitating the choice of the most effective model.

- The tool integrates seamlessly with other Einstein GPT Copilot Studio components like Skills Builder and Prompt Builder, providing an end-to-end solution for creating and deploying conversational AI.

- Additionally, Einstein GPT Model Builder comes equipped with monitoring and analytics capabilities, so users can evaluate model performance over time and make data-driven adjustments as needed.
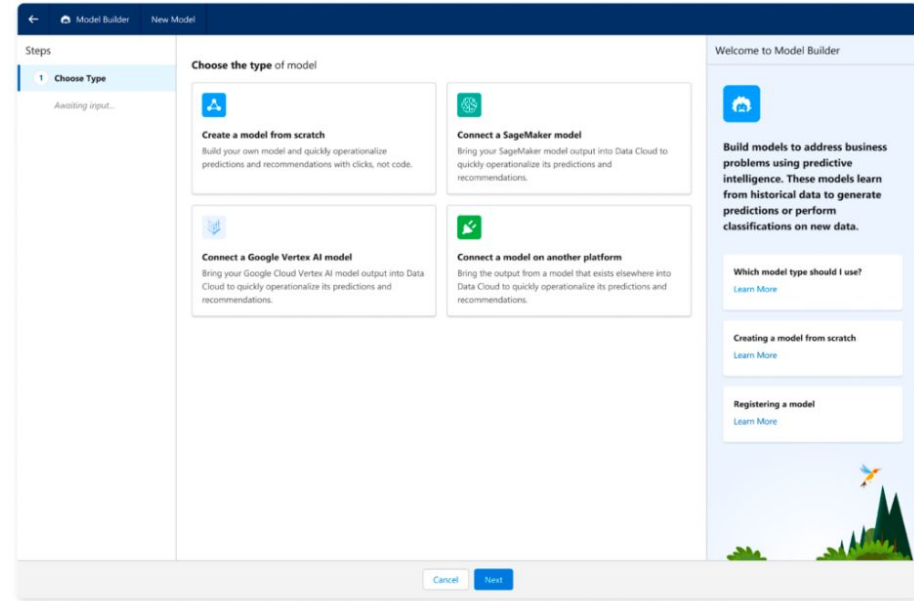
Einstein Co-Pilot (continued…)

Task Automation

Einstein Co-Pilot takes over routine and repetitive tasks, such as sending follow-up emails, logging calls, and setting reminders. This automation frees up users' time, allowing them to concentrate on more value-added activities like strategic planning and customer engagement. Automation also helps in reducing human errors that can occur in manual data entry or task management.

Intelligent Suggestions

The system employs machine learning algorithms to analyze historical data and user behaviors to offer intelligent suggestions. These could range from identifying the next best action in a sales process to recommending specific products for cross-selling or up-selling. Such recommendations are data-driven and aim to increase efficiency and effectiveness in decision-making.

Einstein Co-Pilot (continued...)

Contextual Awareness

Einstein Co-Pilot is built to understand the context in which it is operating. For example, if there's an upcoming deadline for a high-priority project or if a high-value customer has just interacted with the platform, the Co-Pilot can flag these events and suggest appropriate actions. This level of contextual awareness adds an extra layer of intelligence to the system, making it more than just a task automation tool.

Integration and Customization

One of the strengths of Einstein Co-Pilot is its seamless integration with Salesforce's existing CRM platform. This allows for a unified user experience and minimizes the learning curve. Moreover, the tool can be customized to fit the unique needs and workflows of a business, offering tailored solutions rather than one-size-fits-all features.

Einstein Co-Pilot (continued...)

Voice Interface

- Some versions of Einstein Co-Pilot are equipped with voice recognition capabilities, enabling users to interact with the system through natural language commands. This feature can be particularly useful for users who are on the move or those who prefer voice interaction over typing.

Collaboration Features

- Einstein Co-Pilot also provides features that facilitate collaboration among team members. By pooling insights from collective data and user activities, it can coordinate actions and recommendations across a team. This is especially useful in larger organizations where multiple departments or teams need to collaborate on shared goals or projects.

Sales Cloud Einstein

Sales Cloud Einstein offers the following features:

- Sales Assistant: The tool summarizes every step of the sales cycle in a side panel, from account research and meeting preparation to drafting contract clauses. It also automatically keeps the CRM up-to-date, so you can be sure that your sales data is always accurate and up-to-date.

- Sales Emails: The tool can automatically generate personalized emails for every customer interaction, using data from your CRM system. This means that you can send emails that are tailored to the specific needs and interests of your customers.

- Call Summaries: The tool automatically transcribes and summarizes calls, and then sets follow-up actions based on the transcription. This can help to improve seller productivity by freeing up time that would otherwise be spent manually transcribing calls and setting follow-up actions.
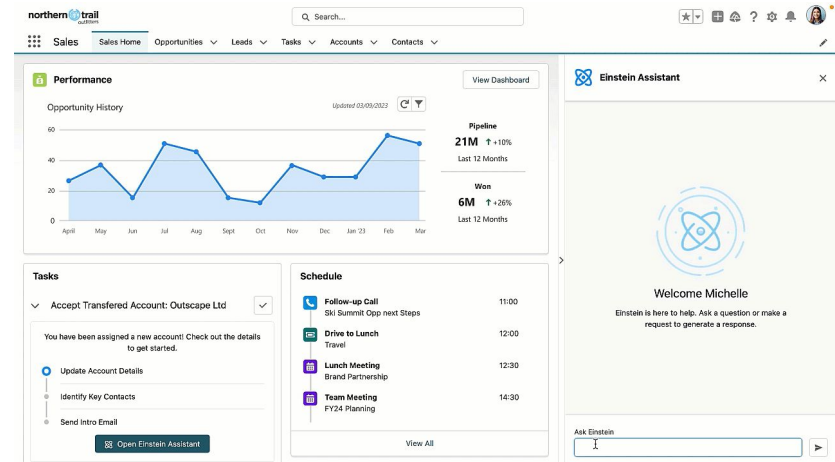
Service Cloud Einstein

Einstein for Service offers the following features:

- Service Replies: The tool can automatically generate personalized responses based on real-time data sources, such as your CRM data and other sources. This means that you can send responses that are tailored to the specific needs and interests of your customers.

- Work Summaries: Create concise and informative summaries of service cases and customer engagements based on the details of the case and the customer's history.

- Call Summaries: The tool automatically transcribes and summarizes calls, and then sets follow-up actions based on the transcription. This can help to improve seller productivity by freeing up time that would otherwise be spent manually transcribing calls and setting follow-up actions.

- Knowledge Articles: The tool can automatically generate and update articles based on the latest real-time data from support interactions. This means that the articles are always up-to-date with the latest information and best practices.

- Mobile Work Briefings: The tool summarizes critical information about each appointment before field service teams arrive, helping them to work more efficiently. This information includes the customer's contact information, the issue that needs to be resolved, and any relevant history.

- Engagement: Einstein for Service can be used to generate content that is relevant to the latest trends and news. This can help to keep customers engaged and coming back for more.

Einstein for Marketing

Einstein for Marketing offers the following features:

- Segment Creation: Marketers are given the ability to create audience segments quickly and improve targeting using natural language prompts to query Data Cloud, Salesforce's CDP offering.

- Email Content Creation: This gives marketers the ability to build email body content, create subject lines, and more, automagically.

- Segment Intelligence: Segment Intelligence steps in to help marketers understand campaign performance, relative to an audience segment.
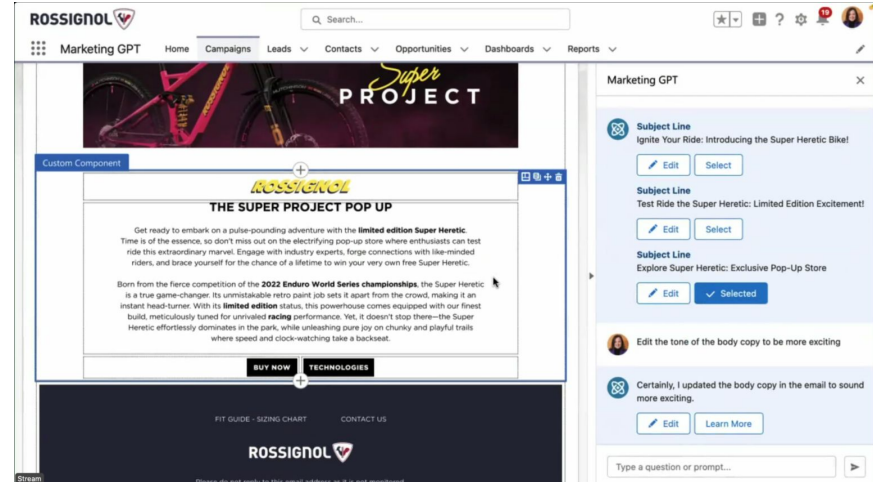
Commerce Cloud Einstein

Commerce Cloud Einstein offers the following features:

- Goals-Based Commerce: This tool empowers businesses to set targets and goals, and then provides actionable insights and proactive recommendations on how to meet them – for example, to improve margins or to increase average order value (AOV).

- Dynamic Product Descriptions: With Commerce Cloud Einstein, alleviating the work of creating product descriptions, new storefronts are faster than ever to 'stand up'. It can also automatically fill in missing catalog data for merchants and revolutionize the customer experience with auto-generated product descriptions tailored to every buyer.

- Commerce Concierge: This application experience built on top of Commerce Cloud Einstein uses bot technology and generative technology to help brands deliver a 1:1 shopper experience on any messaging channel.

Slack AI

Slack AI offers the following features:

- An AI-ready platform to integrate and automate with your language model of choice, whether you use partner-built apps such as OpenAI's ChatGPT, Anthropic's Claude or build your own custom integration.

- A set of AI features built directly in Slack, including AI-powered conversation summaries and writing assistance

- A new Einstein GPT app that lets you surface AI-powered customer insights from trusted Salesforce Customer 360 data and Data Cloud.
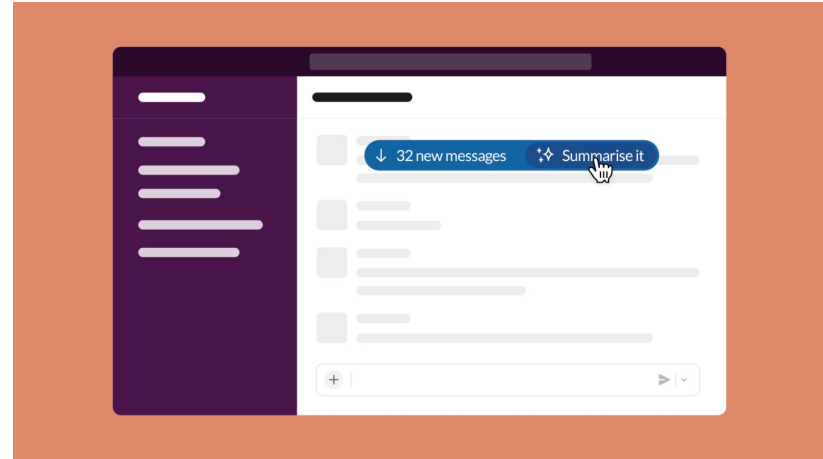
Tableau AI

- Tableau AI is a new feature that is being added to Tableau. It uses generative AI to automate many of the tasks involved in data analysis. This makes it easier for users to analyze data and create visualizations.

- Tableau AI is still **under development**, but it has the potential to revolutionize the way data is analyzed. It could make data analysis more accessible to a wider range of users and help businesses make better decisions based on data.

Einstein for Developers

- Einstein for Developers is a generative AI tool that helps developers and IT teams to improve software development speed and efficiency.

- It is unique because it's integrated into the Salesforce Platform. This integration allows it to use your organization's code information to provide tailored coding suggestions. It also comes with the AI Trust Layer to ensure the security of your code. In simple terms, it's a smart tool that understands your code and helps you write it better while keeping everything safe.

- Einstein for Developers also has the ability to scan for code vulnerabilities and provide inline code suggestions directly from the Salesforce integrated development environment (IDE). This can help to improve the quality of code and reduce the risk of errors.

- Overall, Einstein for Developers is a powerful tool that can help developers to improve their productivity and the quality of their code.

Einstein for Flow

- Einstein for Flow is a generative AI tool that allows users to create workflows based on a single text prompt. This means that users can simply type a natural language description of what they want the workflow to do, and Einstein for Flow will generate the code for the workflow.

- For example, a user could type "I want to create a workflow that sends a notification to sales representatives when a lead is converted to an opportunity." Einstein for Flow would then generate the code for a workflow that does exactly that.

- Einstein for Flow is a powerful tool that can help users to automate their workflows and save time. It is also a great way for users who are not familiar with programming to create workflows.
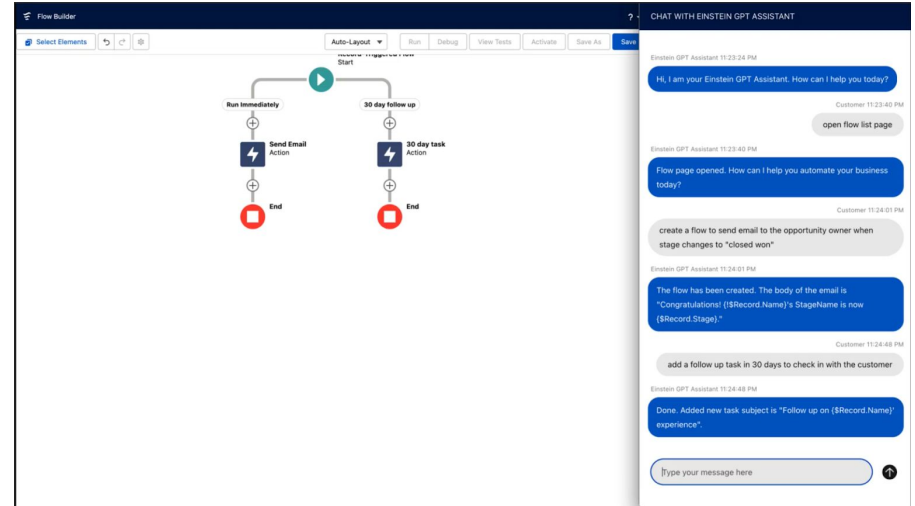
Trailhead Quick Look Badges

- Sales GPT: Quick Look
- Service GPT: Quick Look
- Marketing GPT: Quick Look
- Tableau GPT: Quick Look
- Commerce GPT: Quick Look
- Slack GPT: Quick Look
- Salesforce Data Cloud: Quick Look

Trailhead Badges

1. Salesforce Einstein Basics
2. Data Quality
3. Artificial Intelligence Fundamentals
4. Generative AI Basics
5. Natural Language Processing Basics
6. Responsible Creation of Artificial Intelligence
7. Artificial Intelligence for Business

Pricing

Einstein GPT pricing is included in Service Cloud Einstein and Sales Cloud Einstein, at **$50/user/month**. This includes a **limited number** of Einstein GPT credits. As usage grows, customers can purchase Enterprise Expansion packs for Sales and Service teams.

Here is a more detailed breakdown of Einstein GPT pricing:

- Service Cloud Einstein: $50/user/month, includes a limited number of Einstein GPT credits
- Sales Cloud Einstein: $50/user/month, includes a limited number of Einstein GPT credits
- Enterprise Expansion pack for Sales and Service teams: Pricing varies depending on usage

Customers who have purchased Unlimited Edition, which includes the Einstein SKU, will be eligible to use GPT-powered capabilities **without having to purchase additional credits**.

Einstein GPT credits are used to generate outputs from user prompts. The number of credits required per output varies depending on the complexity of the prompt. For example, generating a simple email will require fewer credits than generating a complex product description.

Salesforce Customer 360 Data Platform

An overview of key features, components, and architectural aspects.

Key Features

1. Data Integration: Unifies data from multiple sources.

2. Identity Resolution: Merges fragmented customer data.

3. Segmentation: Allows targeted marketing and sales.

4. Data Governance: Ensures data privacy and compliance.

5. Real-time Engagement: Triggers actions based on customer behavior.

6. AI and Analytics: Offers predictive insights.

Core Components

1. Data Manager: Connects Salesforce apps and creates universal IDs.

2. Audiences: Builds customer segments for personalized experiences.

3. Privacy and Compliance: Handles data securely.

4. Insights: Integrates with Tableau and Einstein for analytics.

5. Activation: Utilizes unified data for real-time engagement.

Architectural Overview

1. Data Layer: Ingests and stores raw customer data.

2. Processing Layer: Cleans, transforms, and resolves identities.

3. Application Layer: Accesses unified data for functionalities.

4. Analytics Layer: Provides insights and decision-making.

Summary

- Customer 360 serves as the backbone for understanding and engaging customers. It offers an integrated approach to data management, leveraging Salesforce's suite of applications.

Demos

Understanding Salesforce Einstein GPT in 20 minutes