## re:Invent

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BIZ310-R

# The opportunities and challenges of generative AI in contact centers

**Gillian Armstrong** 

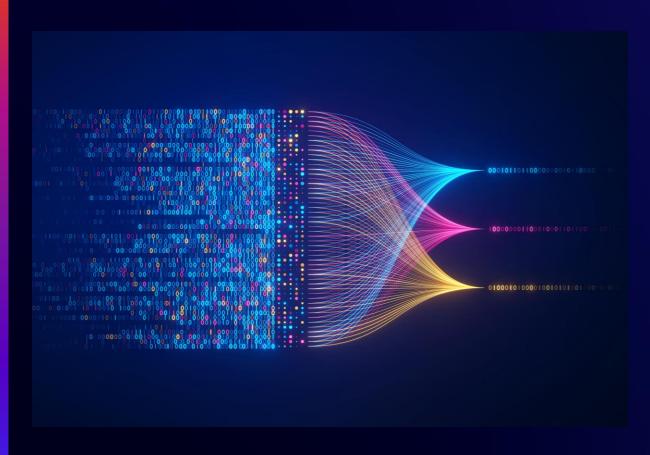
Solutions Architect AWS

**Bamba Diouf** 

Solutions Architect Manager AWS



## Generative artificial intelligence (AI)





Are you already using or experimenting with generative Al in your business?



## Areas of opportunity in the contact center



## Key areas of opportunity in CX



Agent assist



## Key areas of opportunity in CX



Agent assist



Manager assist



#### Key areas of opportunity in CX



Agent assist



Manager assist



Customer self-service



What use cases in the CX space are you most excited about?



#### **Concerns**



What concerns you the most about generative AI?





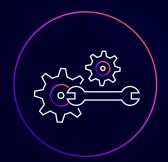




Skills/ease of use







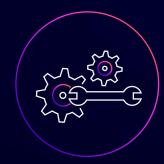
Skills/ease of use



Quality and reliability







Skills/ease of use



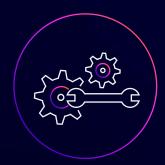
Quality and reliability



Cost control and resource utilization







Skills/ease of use



Privacy and security



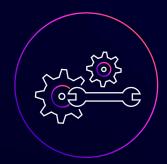
Quality and reliability



Cost control and resource utilization







Skills/ease of use



Privacy and security



Quality and reliability



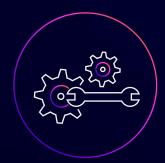
**Customer trust** 



Cost control and resource utilization







Skills/ease of use



Privacy and security



Quality and reliability



**Customer trust** 



Cost control and resource utilization



**Ethics** 



## What can we do about it?







Use case selection



#### Use case selection



#### **Impactful**

Use cases should solve real business problems

#### **Balanced risk**

Select use cases with lower risk as you learn

#### Differentiator

Focus on where generative AI will be significantly better than other options







Use case selection



Human-in-the-loop







Use case selection



Human-in-the-loop



Education







Use case selection



Prompting techniques



Human-in-the-loop



Education





Prompt Engineering

Zero-shot







Prompt Engineering

Zero-shot

Few-shot

```
<example question>
<example answer>
<example question>
<example answer>
. . .
<Question>
                       Answer
```





Prompt Engineering

Zero-shot

Few-shot

Chain of thought

<example question>
<example answer with
step-by-step reasoning>
...

<Question>. Think through it step by step:

Answer with reasoning

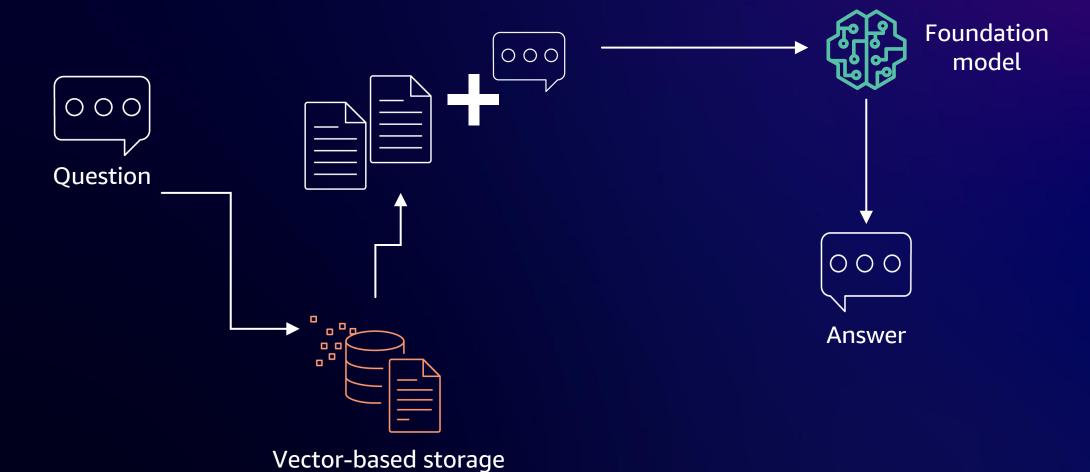




- Prompt Engineering
- Context injection (such as Retrieval Augmented Generation)









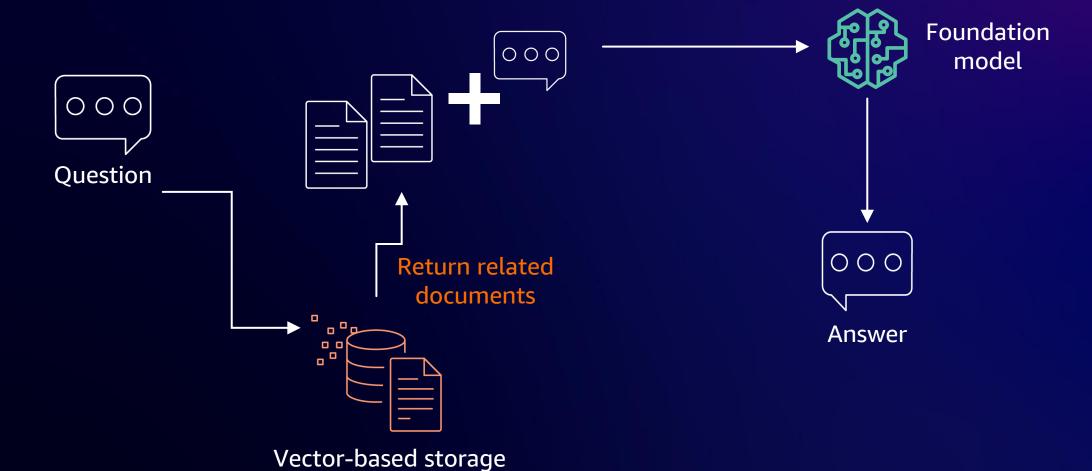
Vector-based storage





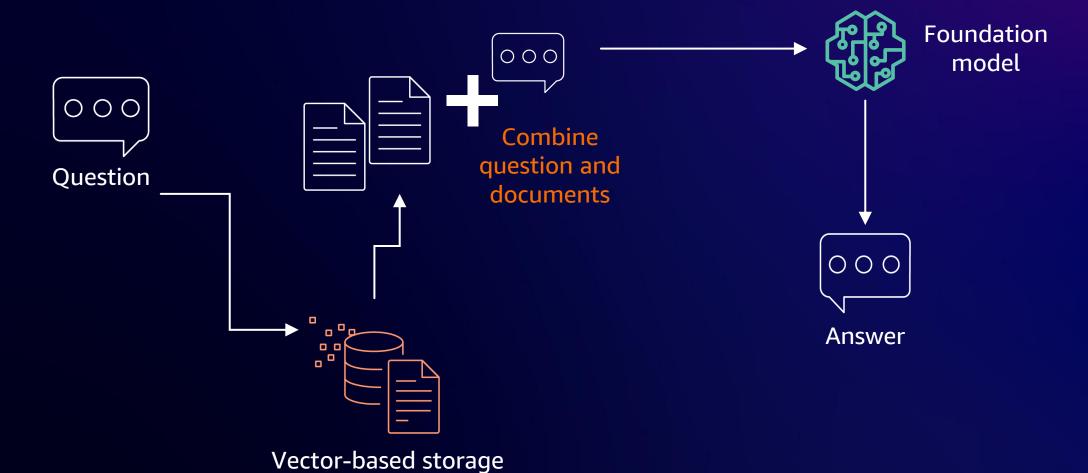














Vector-based storage







Vector-based storage









- Prompt Engineering
- Context injection (such as RAG)
- Agents (examples include ReAct, LangChain, Agents for Amazon Bedrock)







Use case selection



Prompting techniques



Human-in-the-loop



Fine-tuning



Education







Use case selection



Prompting techniques



Human-in-the-loop



Fine-tuning



Education



Trusted providers



#### Use cases



#### Learn more



AI/ML in Amazon Connect aws.amazon.com/connect

## AWS Contact Center Intelligence (CCI) Solutions

go.aws/cci





Generative AI on AWS https://aws.amazon.com/generative-ai/



#### Join us Wednesday night!

re:Invent

CUSTOMER EXPERIENCE NETWORKING RECEPTION

November 29, 2023 | 6PM–9PM PST Villa Azure Las Vegas at The Venetian 3327 South Las Vegas Boulevard, Las Vegas, NV 89109





## Thank you!



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