

# Conversation intelligence - Memo

*This memo outlines internal pod discussions, discussions with leadership, brainstorming sessions, and previous internal knowledge. **The goal of this document is to facilitate discussions, spark ideas and enable the pod to take next steps.***

**INTERNAL ONLY : DO NOT SHARE WITH CUSTOMERS**

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## Truth in conversations

Our mission with Conversation Intelligence (CI) is to **enable customers to find the truth in their conversations**. An insight is the smallest unit of truth. Insights lead to action and tangible outcomes for businesses.

*An insight is the smallest unit of truth.*

In the context of contact centers, insights are primarily derived from conversations. We will be successful if we enable users to find insights within their conversations accurately, efficiently, and fast. **While insights lead to action, our primary focus is on enabling customers to derive insights.**

## Who are we building for

Different people can get value from finding insights. However, insights from conversation intelligence are most useful for people that lead teams or business processes. E.g., CXOs, Directors, Supervisors, QA leads, QA, etc.

*Insights from conversation intelligence are most useful for people that lead teams or business processes.*

To that end, we can think of **two key stakeholder personas** for conversation insights:

## Consumers

They are primarily concerned with the consumption of insights to take action. Their focus is on deriving insights, and their goal is to get insights in the fastest and most efficient way possible. Sometimes, consumers delegate the task of deriving insights to other stakeholders. E.g., CXOs asking business analysts to build reports.

## Miners

Their primary job is to derive insights for the Consumers. Their focus is on building and extracting insights accurately and with speed. Often a Builder and a Miner are the same person. However, in some cases, organizations can have specific roles that are responsible for building insights. E.g., speech analysts, business analysts, etc. Sometimes insight miners may need the support of other insight miners, e.g., a Business analyst reaching out to a Speech analyst to create Moments.

## Types of workflows

Our users live in a world of imperfect information. **When trying to discover insights from their customer conversations, users can often encounter difficulties related to knowledge, articulation of their needs, or not knowing where to start.** Discovering insights can be a challenging process.

There are three types of workflows that most users run into

1. I know what I want
2. I have a hunch
3. I don't know what I don't know.

### I know what I want

This is the most straightforward workflow where users know precisely what they are looking for. This can be in the form of specific metrics, trends, industry standards, etc. A common pain point in this workflow is the user's ability to use a tool or process effectively. Improvement in usability and user experience can significantly improve efficiency. This workflow also enables the automation of business processes, e.g., knowing what Moment to build is necessary for automating a question.

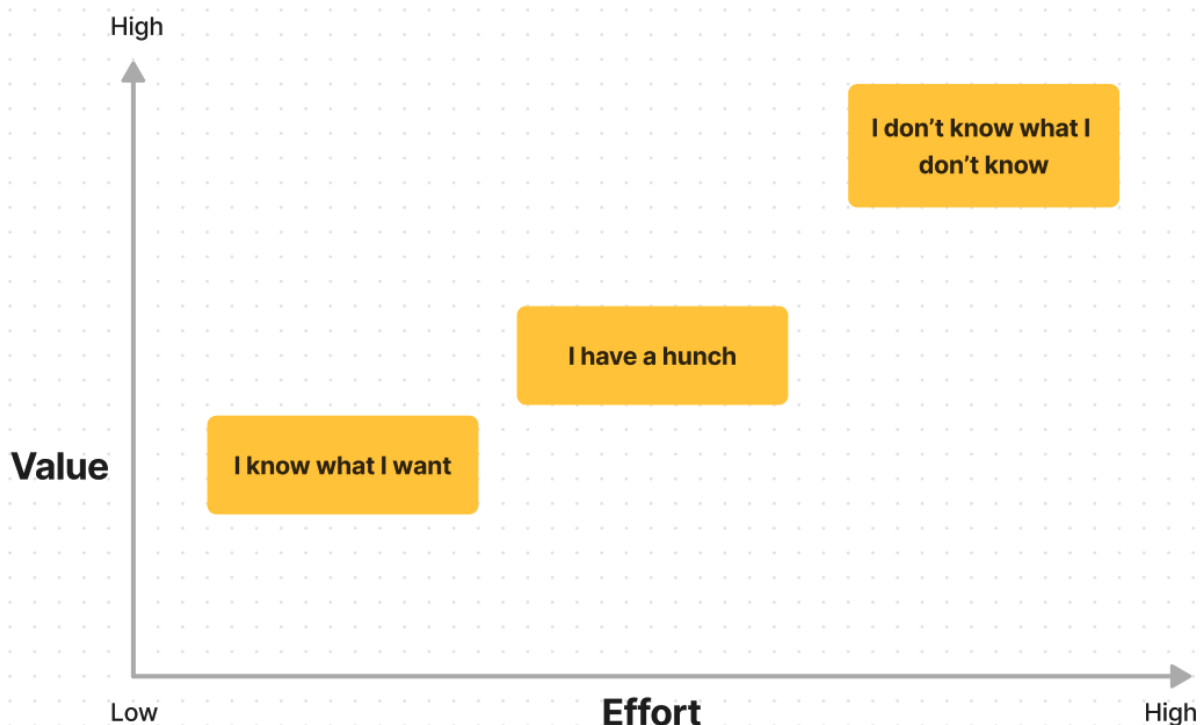
### I have a hunch

This is a common workflow when users have a 'sense' of what they want but don't know how to articulate. A common example is a **hypotheses-validation** exercise. The ability to discover insights from a hunch is extremely valuable to users. However, major pain points in this workflow can be articulating an action plan and knowing where to start and how to start.

## I don't know what I don't know

This is the hardest workflow and depends heavily on serendipity, exploration, experience, and curiosity of users. Also known as a 'blank slate' problem, being effective in this workflow requires the ability to organize information efficiently and test hypotheses quickly. **Speed and flexibility of workflows are essential** for success. Sometimes software can get around this by eliminating the 'blank slate' and giving users starting points to begin their journey of insight discovery.

One thing to keep in mind is that we don't want to be too rigid when providing starting points. A lot of 'finding truth' means that we (OAI) don't know exactly what people are looking for.



*User Value vs. User Effort for different types of workflows*

## Outcomes, not mechanisms

I want to know, 'why are my sales calls not converting?' or 'why did my sales decrease?'. I analyze or build a moment to understand this information. My goal is not to build a moment or a report.

Currently, the OAI tool focuses overly on operational aspects (mechanisms) of building insights, e.g., moment builder, reporting, etc. However, building moments is not what users want, they want to make sense of their conversations and take action.

*Users care about outcomes, not the mechanisms to achieve those outcomes.*

Users build processes and mechanisms to discover insights from their conversations. However, their end goal is not to build a process but to find insights. For e.g., when users build a moment to track supervisor escalations, their goal is not to build the moment but to track this information in their conversions.

Users care about outcomes, not the mechanisms to achieve those outcomes. A mechanism or a process is often a friction point for users to get what they want, i.e., insights. There is value in shortening this process, i.e., reducing the time to value of gaining insights.

# A magical way of generating insights

*Imagine a world where our users can derive insights at the speed of thought, or better yet, even before they think about it.*

Currently, OAI focuses overly on operational aspects (mechanisms) of building insights, e.g., moment builder, looker reports. However, **building moments or reports is not what users want; what they want is to make sense of their conversations** and take action. A lot of our platform currently facilitates insights based on intent, i.e., users need to know what they want to get a value which can be a friction point.

Our users want to derive insights in the fastest and most efficient way possible. They don't want to create processes and use mechanisms to build out an insight. Imagine a world where our users can derive insights at the speed of thought, or better yet, even before they think about it.

Following are **some mental models** that can help us enable magical experiences:

## Oracle AI

*Language is an effortless user interface*

Asking questions is one of the simplest low-latency human activities. Language is an effortless user interface. **Imagine a world where finding insights is as simple as asking questions**, e.g., why did my sales decrease?

***Oracle: an AI that does nothing but answer questions. -  
Nick Bostrom***

An Oracle is essentially a question-answering system. We can think of an Oracle that enables users to derive insights by asking it questions. There is value in building a conversational interface to derive insights. A system that allows users to ask questions about a conversation or a set of conversations will be valuable.

*GPT for conversations.*

## A vocabulary of conversation intelligence

Our users want to derive accurate insights from their conversations in the fastest and most efficient way possible.

To that end, we want to

1. **Reduce the time to value of insights**
2. **Increase the accuracy of insights**

While a conversational interface can help with speed, i.e., reduce the time to value of insights, it can lead to a problem of inaccuracy in results. To be able to generate accurate and precise insights, **users will need more control over their inputs.**

*Why did my sales decrease in the last quarter?*

**To give users more control over their insights, we need to build mechanisms to control the Conversation intelligence's inputs, i. e. a vocabulary of conversation intelligence.** We can think of these as atomic building blocks made up of nouns (words, entities, signals), verbs (behaviors), adjectives (directions, sentiment), conjunctions (operators), etc. **A vocabulary of conversation intelligence can help users precisely structure a question to get the most accurate insights.**

A vocabulary in this context is not limited to words. A conversation, especially a **voice conversation, contains lots of information apart from the words being spoken.** It has hidden information about sentiment, emotion, the context of the conversation, metadata, etc. Enabling user control over these components can lead to higher accuracies and a feeling of ownership.

*Idea: GPT + Signals*

## Recipes

If I were to ask you to make biryani, very few of us could make it from memory alone. We would probably go on the internet and look for a recipe. A recipe is a series of steps that enables you to create a dish, given the availability of ingredients. A recipe acts like a second brain, it reduces the cognitive load involved in creation. Recipes are flexible, and they can be modified and shared easily.

*A recipe acts like a second brain, it reduces the cognitive load involved in creation.*

**In the context of Conversation Intelligence, the mental model of ‘recipes’ can reduce the cognitive load of figuring out an insight.** It can give users starting points that they can modify to fit their purposes. Customers can also create new recipes, save recipes and share them with their teams. OAI can help users derive insights quickly by providing recipes and ingredients (components, vocabulary, etc.).

*Recipes can be saved, modified, and shared easily.*

## **Language agnostic insights**

Imagine a world where our user's ability to derive insights from their customer conversations is not dependent on knowing a language. For example, an English-speaking Ops director in a multi-lingual global BPO can get insights about French, Spanish, Hindi, and German calls without relying on translators. A platform that enables users who don't know a language to discover insights will give them superpowers and make them feel more in control. Additionally, it can lead to a reliance on the tool and make it more sticky.

*Imagine a world where your ability to derive insights from conversations is not dependent on knowing a language*

## **Storytelling**

*Users can derive far greater value from their insights in the form of a story*

A large part of our user's job is communicating and persuading various stakeholders about business outcomes, ideas, action plans, and strategies. Being able to **articulate complex problems effectively** can reduce the time to value of outcomes. While individual insights can be valuable, stitching them into a narrative can help our users become more efficient and effective.

Storytelling is powerful. Users can derive far greater value from their insights if they convert them into a story or a structured narrative instead of displaying individual insights. Users can become far more efficient if the tool enables them to tell stories with their insights.

**Following are key components of insight based storytelling:**

## Past, present, and future

*Stories often talk about what happened (past), what's happening (present), and what might happen (future).*

When telling a story, time plays an important part. Stories often talk about what happened (past), sometimes what's happening (present), and what might happen (future). So far, we've been focusing on past data, and there is value in embedding AI in real-time scenarios. However, there is also potential for prediction based on past information. Enabling users to tell stories from their past conversations and predict what can happen will be valuable when making decisions based on insights.

## Shape of insights

An insight is a building block of a story. A story is a structured narrative that can take many forms, like an article, a visualization, a comic, a video, a dashboard, etc. Similarly, insights can take many forms, like signals, moments, topics, reports, visualizations, answers, etc.

*An insight is a building block of a story.*

What users care about is communicating and articulating insights effectively within a story to make decisions. **An outcome of an insight can also be a path forward - a decision or action.** To that end, the form or shape of an insight needs to be fluid and flexible depending on the nature of the problem or story.

## Data

Conversations contain a wealth of information for our users. Some of this information is obvious to our users, like phrases. In contrast, **some information is implicit, like sentiment, who is speaking, the context of the conversation, type of conversation, metadata, information from related knowledge bases and systems, etc.** Deriving insights from obvious information is easy; however, getting insights from implicit data is more challenging, impactful, and valuable.



*Deriving insights from obvious information is easy; however, getting insights from implicit data is more challenging, impactful, and valuable.*




## **Disrupting business processes**

When it comes to contact centers, organizations, and BPOs build processes to make sense of their customer interactions. For example, BPOs will operationalize an evaluation process to track specific metrics for monitoring and improvement. An evaluation process is essentially a **proxy for the truth in their conversations.**

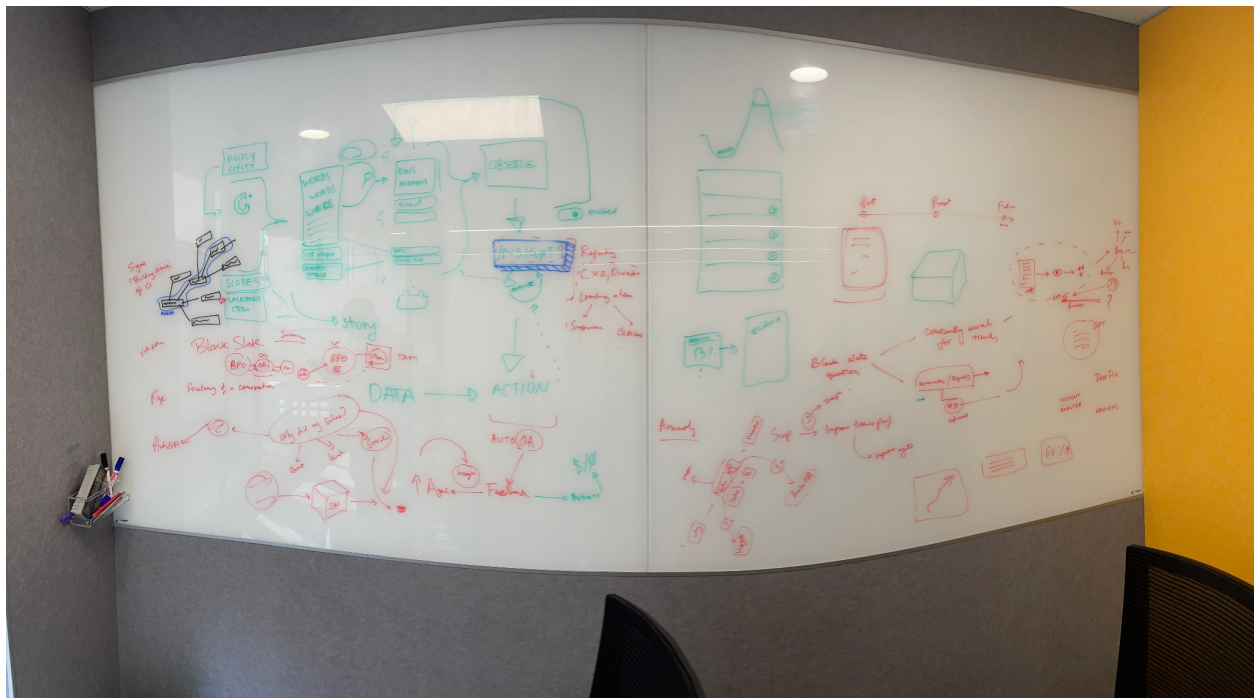
*If a system can help customers make sense of their conversations effectively, they don't need a process around it.*

**Customers build processes to discover insights and provide them with a path forward. Building processes and operationalizing them is time-consuming and often cumbersome.** If a system can help customers make sense of their conversations (discover insights) effectively, they don't need a process around it. This can also lead to newer processes. With conversation intelligence, there is real potential to transform existing business processes in BPOs.

# Appendix

1. <https://nickbostrom.com/papers/oracle.pdf>
2.  CI Strategy
3. [User motivations](#)
4.  Understanding AutoQA rule builder
5.  Understanding Signals and Signal library

## Brainstorming session (Akshay, Ami, Sam)



## Thoughts from meeting with Swapnil:

1. Might be good to focus in a business analyst (BA) use case (director, sales ops, revenue ops, etc.) instead of purely speech analysts.
2. BAs might use speech analysts to help them 'find the truth in their conversations'
3. A lot of our platform currently facilitates insights based on intent i.e. users need to know what they want to get value. This can be a friction point.
4. It might be interesting to look at guided workflows for finding specific insights. This discussion evolved into a concept of 'Recipes' as a mental model for finding truth.
5. OAI can enable users to 'find the truth in their conversations' by providing 'ingredients' and 'steps' for these 'Recipes'

6. One thing to keep in mind is that we don't want to be too rigid when providing guidance. A lot of 'finding truth' means that we (OAI) don't know exactly what people are looking for.
7. Hypothesis: Users might also want to validate their hypotheses in the process of 'finding truth.' OAI can be a starting point that helps.
8. While we were broadly aligned on motivations, there are open questions on the approaches - signals, topics, GPT etc.
9. On GPT: GPT is an amazing technology and there are definitely use cases which we can build. However, we want to be mindful of not approaching this like a hammer and nail. A potential way to think about this can be to think of GPT as tool in our arsenal that we use when its valuable.

### **Miscellaneous notes from the team:**

1. Insights lead to action. For this, we have focused mainly on the opportunity of discovering insights.
2. Core of CI is insights (the truth in a conversation)
3. A voice conversation consists of text and acoustic information
4. An insight is information derived from a conversation
5. Insights can take many forms within the product like moments, signals, topics, etc. However, we are not too concerned with the form/shape of the insight.
6. Different personas use insights to action them e.g QA uses moments, Ops uses moments within AutoQA
7. The goal is to enable users to derive insights
8. Currently, the tool focuses too much on operational aspects (mechanisms) of building insights e.g moment builder. However, building moments is not what users want, they want to make sense of their conversations and take action.
9. I want to know 'why are my sales calls not converting?' or 'why did my sales decrease?'
10. I analyse or build a moment to understand this information. My goal is not to build a moment.
11. Insights seem to be most useful for people that lead teams e.g CXO, Director, Supervisor, QA lead.
12. Consumers : CXOs, Directors
13. Builders : Business analyst, speech analyst
14. A system that enables users to ask questions about a conversation or a set of conversations will be useful. Idea: GPT for conversations.
15. Enabling storytelling of their data
16. So far we've been focusing on past data, there is potential value in embedding CI in real time.
17. There is also potential for prediction based on past information.
18. Finding insights should be as easy as asking questions. E.g why did my sales decrease?
19. Users should be able to save these insights
20. There is potential to build a conversational interface to derive insights.
21. Atomic building blocks of CI

22. GPT + Signals
23. There is potential to disrupt existing business processes in BPOs.
24. Hypotheses: BPOs build business processes to make sense of their conversations. If a system can proactively help them make sense of their conversations (discover insights), they don't need a process around it. This can lead to newer processes.
25. Grammar of conversation intelligence.
26. How to structure a question? (GPT + Signals)
27. Outcomes may be answers, summaries, visualizations, etc.
28. There are three distinct workflows:
  - a. I know what I want
  - b. I have a hunch and want to discover further
  - c. Help me understand what's going on (Blank slate problem)
29. I have a hunch and help dive deeper
30. Hypothesis - discovery - validation
31. Language agnostic insights
32. Enabling users who don't understand a language discover insights
33. Users build processes and mechanisms to uncover insights. How do we shorten the time to value of getting insights?