CDAO 2025

Maximising Impact: Cost-effective strategies for data and analytics in the age of AI

Presented by Mike Zhou

InDebted

Changing the world of consumer debt recovery for good.

We are a technology company in the Debt Collections Space.

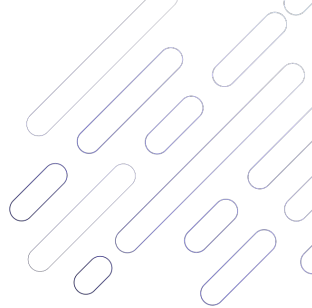|	
Over 2000+	Five Star Google Reviews left by real consumers we've supported.
Significantly Higher Engagement	Customer Engagement leveraging ML & AI
Operating in	
400+	Team Members Globally

About Me

At InDebted, I focus on:

- Data Strategy
- Analytics & Data Science
- AI Product Development

And:

- 16+ Years Experience in Data-Related Disciplines
- Now, with a focus on Applied AI

Gen AI Technology is now **mature** enough for many Enterprise Use Cases.

**Please raise your hand if you agree.**

Prime Time for AI Initiatives

Benchmarking scores shows maturity of current-gen AI Models

Shrinking gap between top 5 LLMs

Benchmarking Score (y-axis): 1100, 1200, 1300, 1400, 1500

<Redacted>

Compared to 18 months ago, the top 5 LLMs are very similar in performance now.

Data has been sourced from LMYSYS / Chatbot Arena - an evaluation benchmark based on human preference judgements.

Prime Time for AI Initiatives

Growth of Gen AI Adoption evidencing increasing effectiveness

Increase in Gen AI Adoption
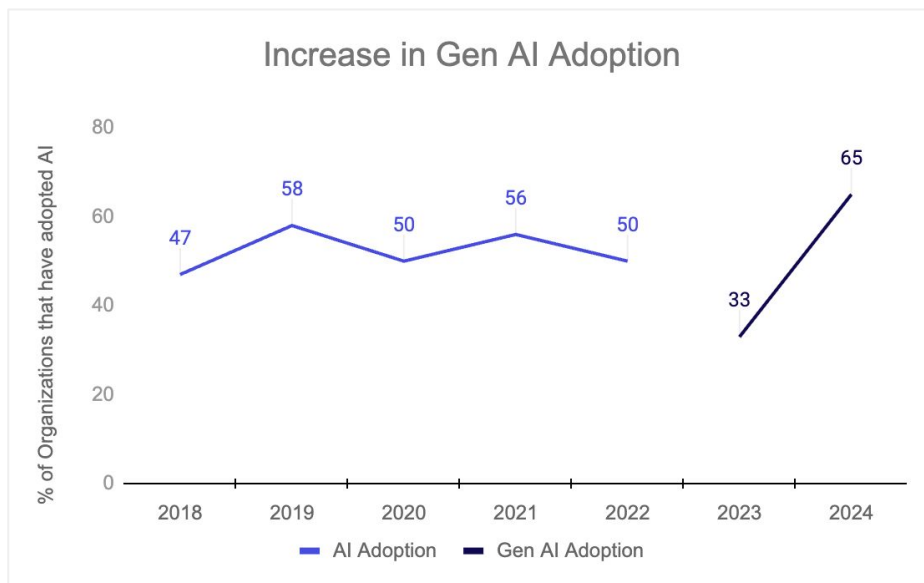
Gen AI Adoption in Enterprise has increased dramatically

Criteria for Investing in AI Initiatives

Evaluation of AI Performance for Task

To ensure that the AI results are fit for purpose. This is usually done through a POC or experimentation.

Integration and Infrastructure Requirements

A scoping of the integration and supporting infrastructure requirements. Custom middleware or connectors can be problematic.

Estimate ROI of Initiative

Above all else, it's important to remember that the ROI however low or high should be forecasted and measured.

Three Examples

AI Coding Editors

AI SQL Analyst

AI Customer Agent
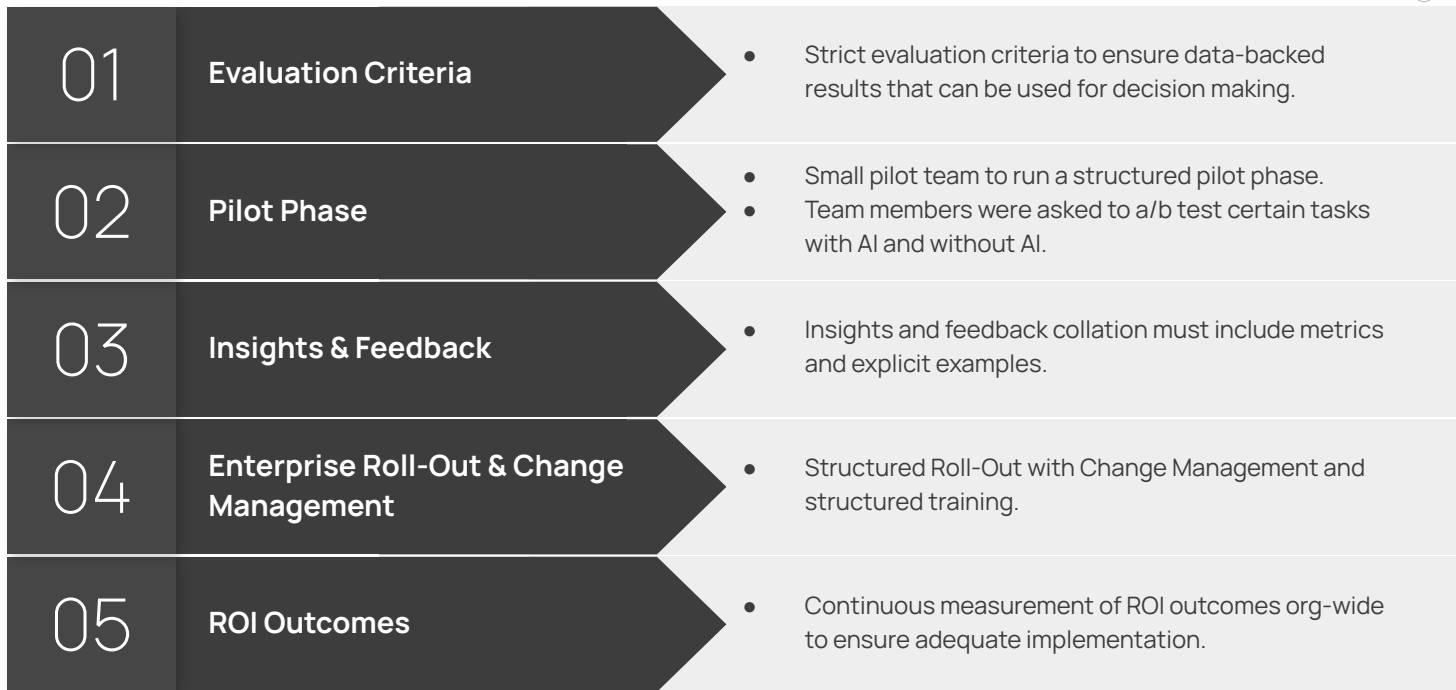
Problem

We want to ship features **faster**

Improve velocity of output for:

Software Engineers
Data Scientists
Data Analysts

Coding Editor Implementation Framework

01 Evaluation Criteria
- Strict evaluation criteria to ensure data-backed results that can be used for decision making.

02 Pilot Phase
- Small pilot team to run a structured pilot phase.
- Team members were asked to a/b test certain tasks with AI and without AI.

03 Insights & Feedback
- Insights and feedback collation must include metrics and explicit examples.

04 Enterprise Roll-Out & Change Management
- Structured Roll-Out with Change Management and structured training.

05 ROI Outcomes
- Continuous measurement of ROI outcomes org-wide to ensure adequate implementation.

Our Roll-Out of AI Coding Editors

First Pilot Unsuccessful

Tool was usable, but was unsuccessful in meeting our hurdle for broader roll-out.

Second Pilot Successful

Attempted a second pilot program.

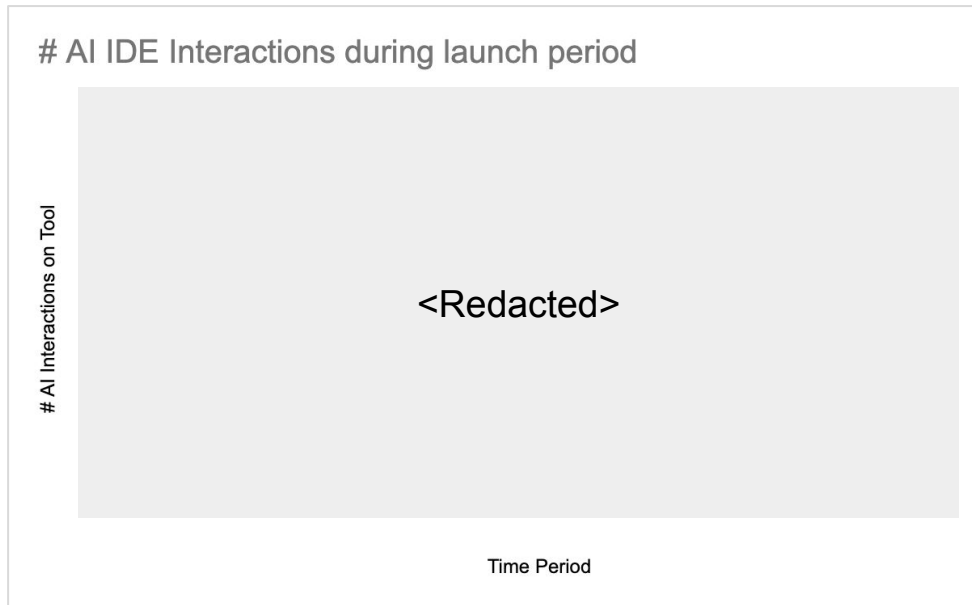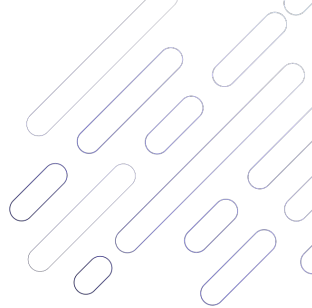Feedback resulted in measured **X%** productivity increase depending on task.

Wider Deployment

Org-wide Announcement and Structured training.

Mandatory Usage amongst all members of technical staff who code.

X% Increase in Productivity

Increased Usage after March Roll-Out

AI IDE Interactions during launch period

AI Interactions on Tool

<Redacted>

Time Period

Ongoing Plan

Monitoring of utilisation

Linking that to productivity and project output measurements

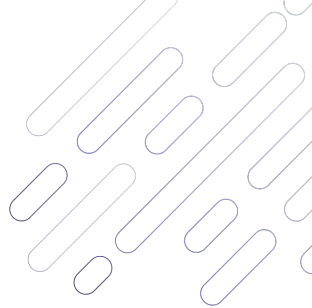# Second Example
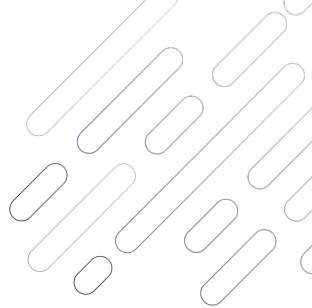
AI Coding Editors

AI SQL Analyst

AI Customer Agent

Problem

Data Analysts spending time on low-value work

Our view is that data analysts should be focused on adding value
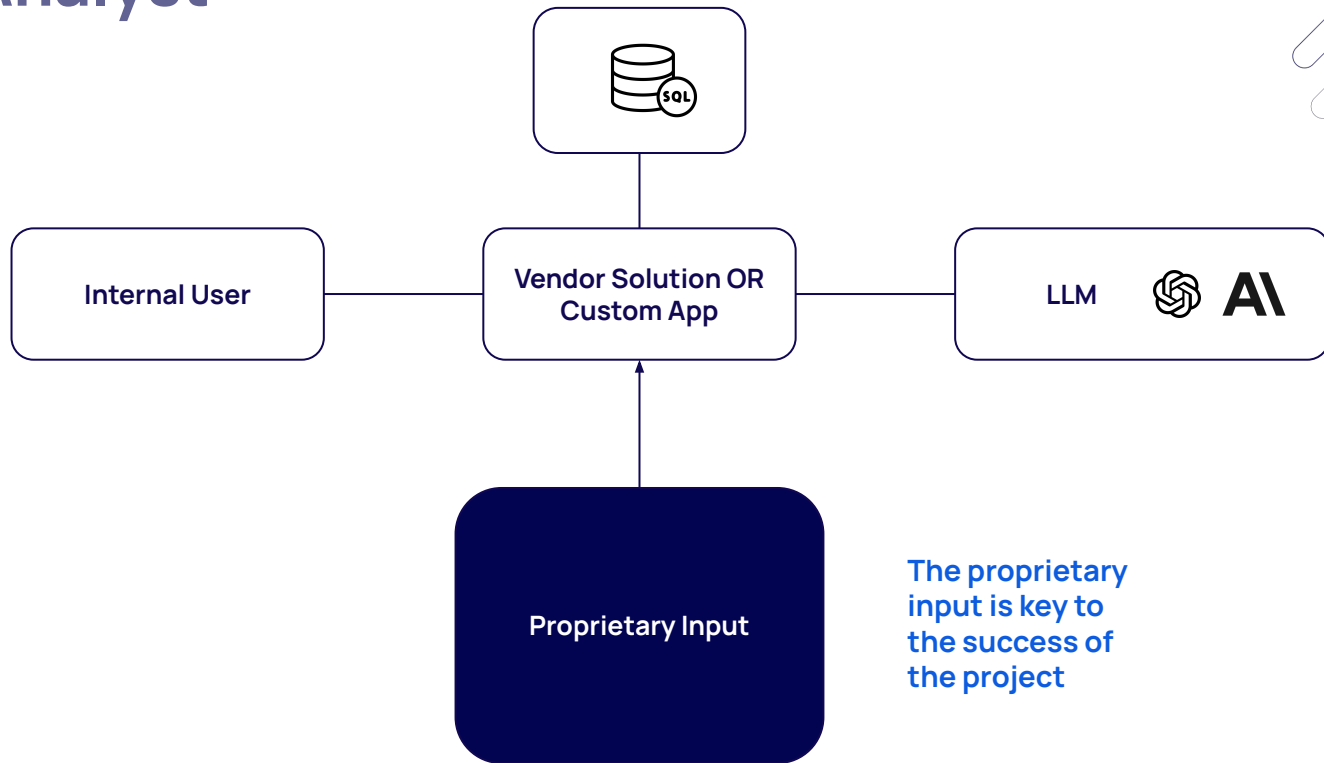
Proposed Solution

AI SQL Agent to Answer   Ring-Fenced Queries

AI SQL Analyst Application ring-fenced for specific business use cases. We began to experiment with this prior to the release of a lot of tools that we see on the market today.

AI SQL Analyst

Key Proprietary Input

Purpose-Built Analytics Datamart

In order to minimise the risk of errors, the underlying data tables need to be structured for the use cases you intend to use this for.

Enterprise Data Dictionary & Knowledge Base

AI Models are able to reason and think through. But they still need to be taught specifics about your organisation.

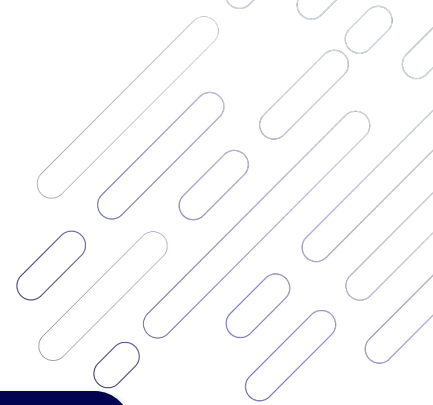### Training Data - Historical Queries (Optional)

We began including well structured examples of queries that have been written by our own Analysts - both query & natural language explanation were included
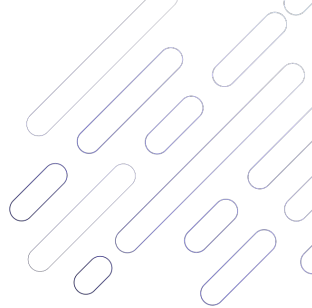
Third Example
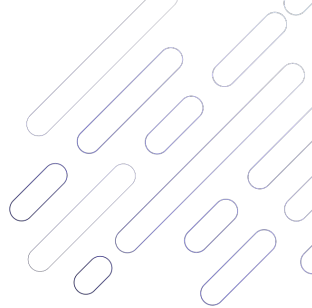
AI Coding Editors

AI SQL Analyst

AI Customer Agent

Problem

Higher than desired Customer Service expenditure

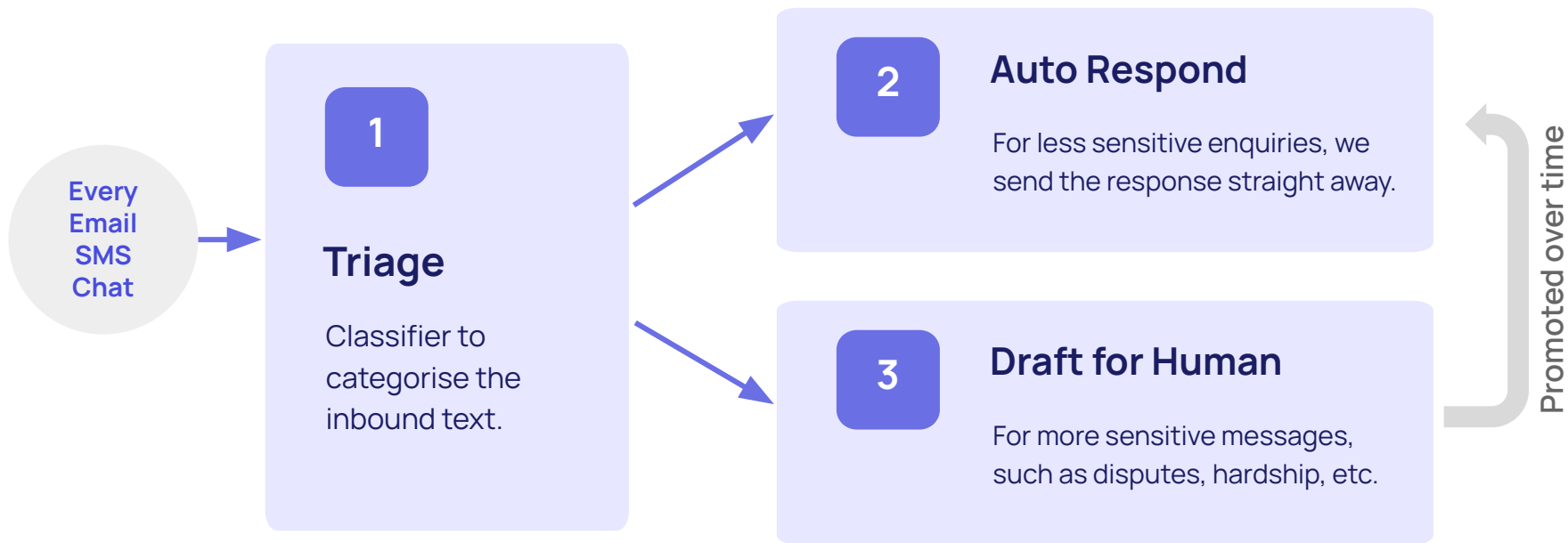We wanted to increase our rate of automated deflection.

Proposed Solution

Text-Based AI Agent to Respond to Customers

To help the company grow without needing to add human customer service staff, we embarked on a journey to develop a custom response tool for debt collections.

Overcoming Compliance Requirements

Every Email SMS Chat

1

Triage

Classifier to categorise the inbound text.

2

Auto Respond

For less sensitive enquiries, we send the response straight away.

3

Draft for Human

For more sensitive messages, such as disputes, hardship, etc.

Promoted over time

Journey to Full AI Coverage in a Regulated Industry

Sensitive Enquiries, e.g. Hardship

3

Demonstrate human-level error rate or better.

High Accuracy Required

Complex Enquiries, e.g. Disputes & Account Updates

2

Minor Errors Tolerated. Require Complex Prompt Engineering and Agentic Actions.

Simple Enquiries, e.g. How to Pay

1

10% Error Rate Tolerated. Simple Prompt Engineering.

Low Accuracy Required
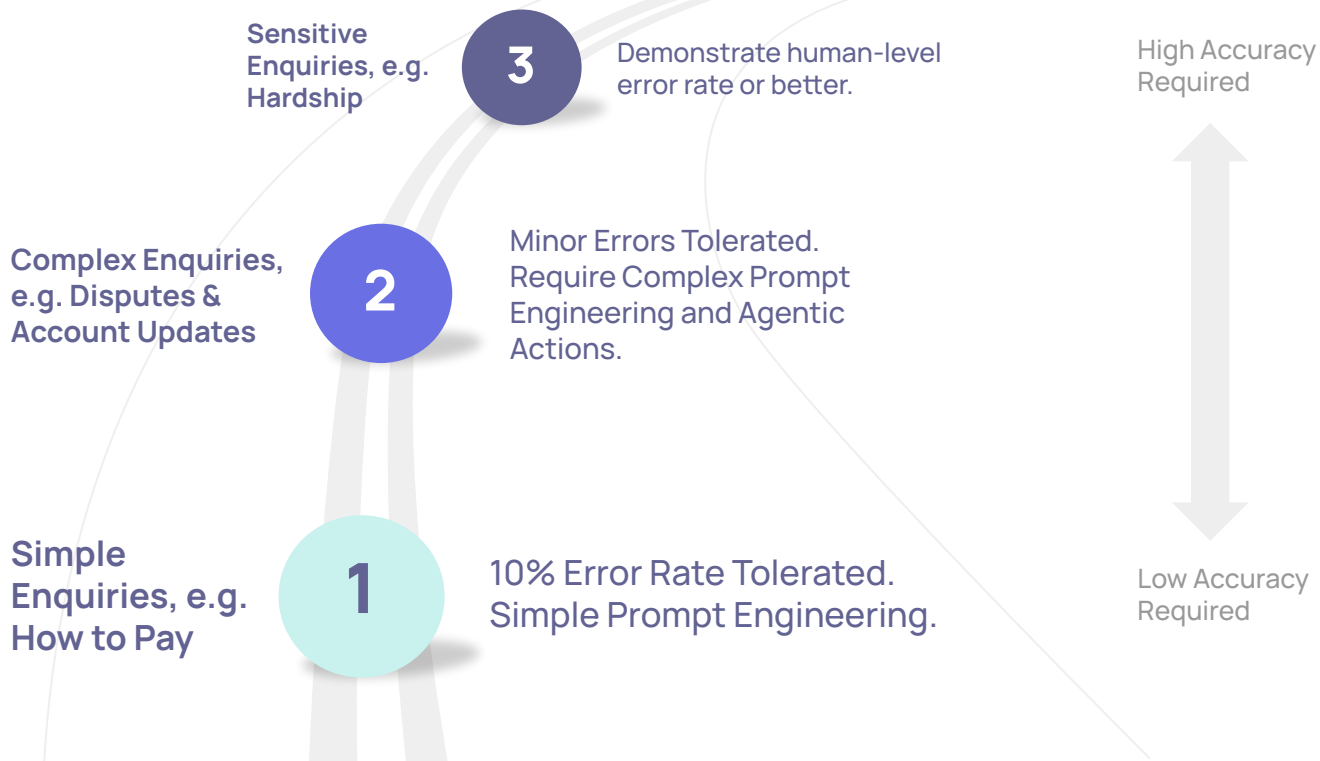
Key Message

Irrespective of where you are on your journey implementing AI:

Remain informed on where 'AI Tech Accuracy' is for your use cases

Ensure you have technical team members who keep up to date on the latest use cases that AI has become effective for.

Thank You

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