

CRISIS TEXT LINE |

Conversation Simulator using Large Language Models



TRIGGER

ADVISORY

WARNING

The world needs more
Human-to-Human connection





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Product



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Crisis Text Line

Suicide Prevention and
Mental Health Crisis Support

24/7, Free and Confidential
Support for Everyone

True **Human to Human**
Conversation

Non Profit



Highlights

10 Year Anniversary

Global SaaS Platform

Text (SMS, OTT, Chat) Service

8.3M Conversations

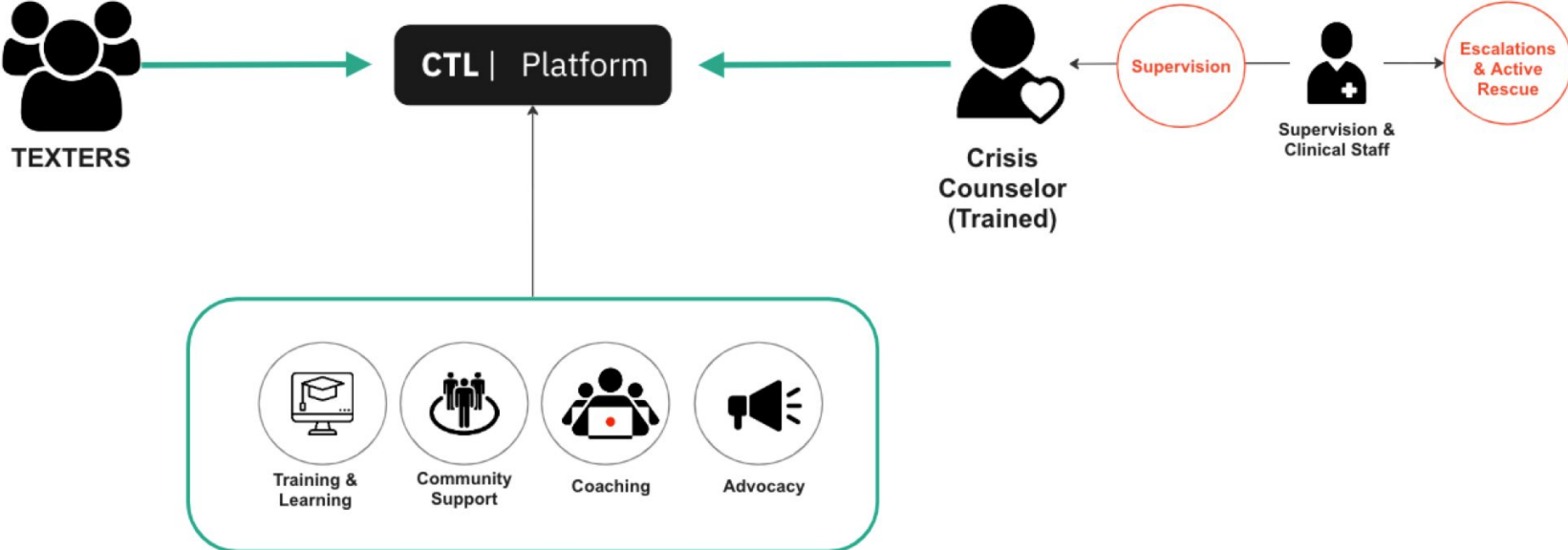
3.5M People Supported

59K Volunteer Crisis Counselors

4 Countries (US, CA, UK, IE)

3 Languages (EN, ES, FR)

Crisis Care Platform

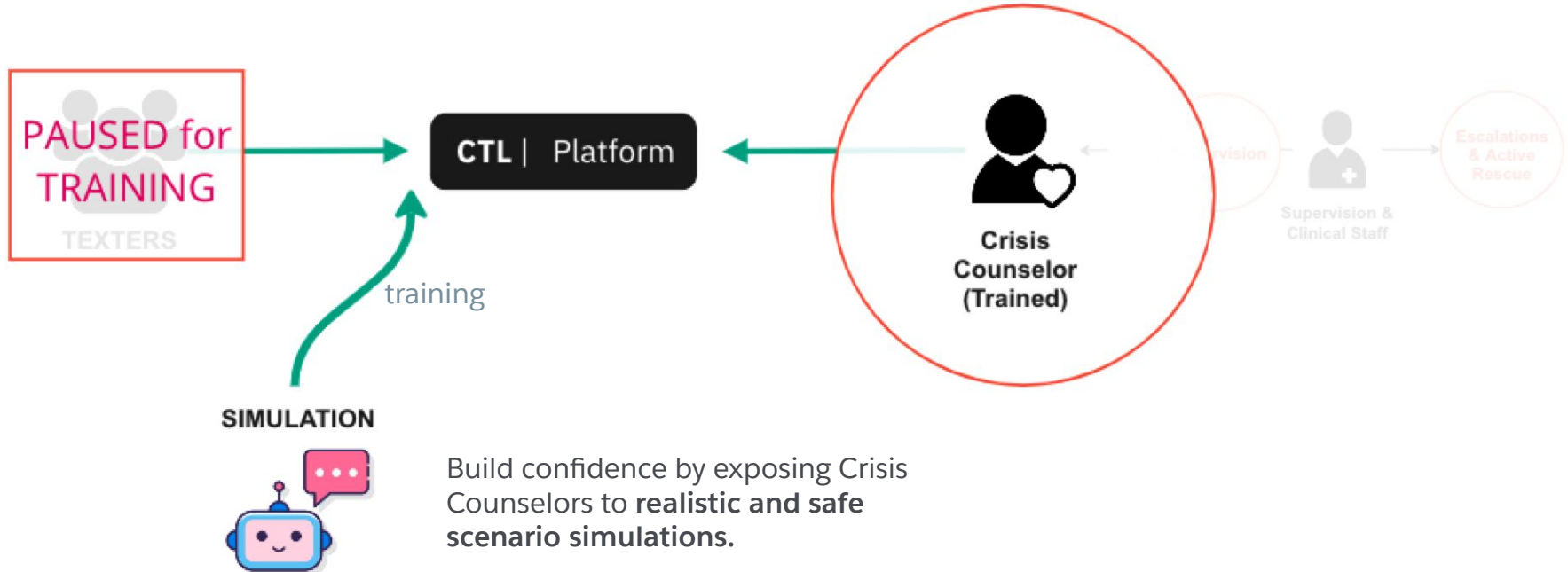




**Volunteer Crisis
Counselors:**

**Am I ready to
support someone
in crisis?**

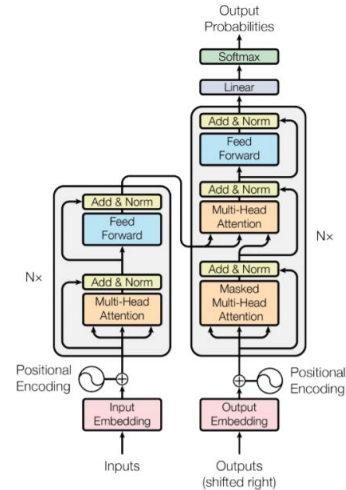
Idea - What are we building?



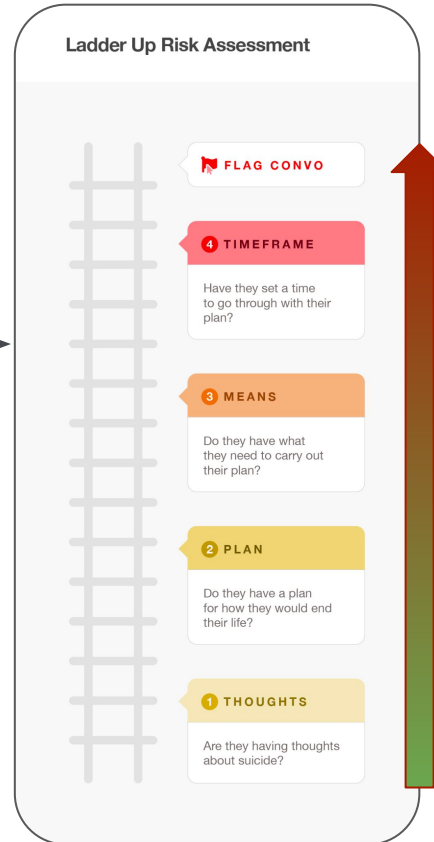
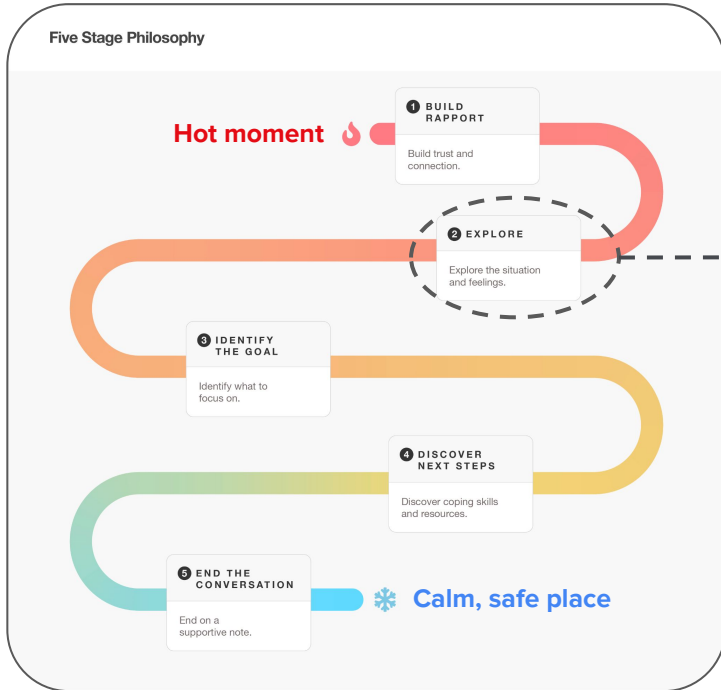
Plan - What is our Approach?

Build realistic simulations of conversations so Crisis Counselors can train specific scenarios.

With OpenAI's API, fine-tune a Large Language Model to predict texter behavior.



Skeleton of a Conversation



High Risk
High Complexity

Medium Risk
Medium Complexity

1
Data Preparation

Data Selection Approach

Simulations need to be predictable, i.e., they should reproduce a specific persona and scenario every time.

~~Crisis Text Line Conversation Dataset~~

~~Real Texter data~~

~~Large anonymised dataset.~~

~~Broad distribution of topics and risk levels.~~

~~Ethical considerations.~~

vs.

Manually Generated Roleplays

Generated by our clinical staff

Small synthetic dataset.

Narrow distribution of topics and risk levels.

Synthetic data free of ethical concerns.

Scenario Requirements

1

Data Preparation



Olivia
Medium Risk

Suicidal thoughts,
but **no plans**

Fixed in every roleplay

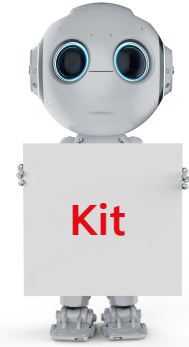
50 Role Plays

Kit
High Risk

Immediate risk
of suicide

Fixed in every roleplay

50 Role Plays



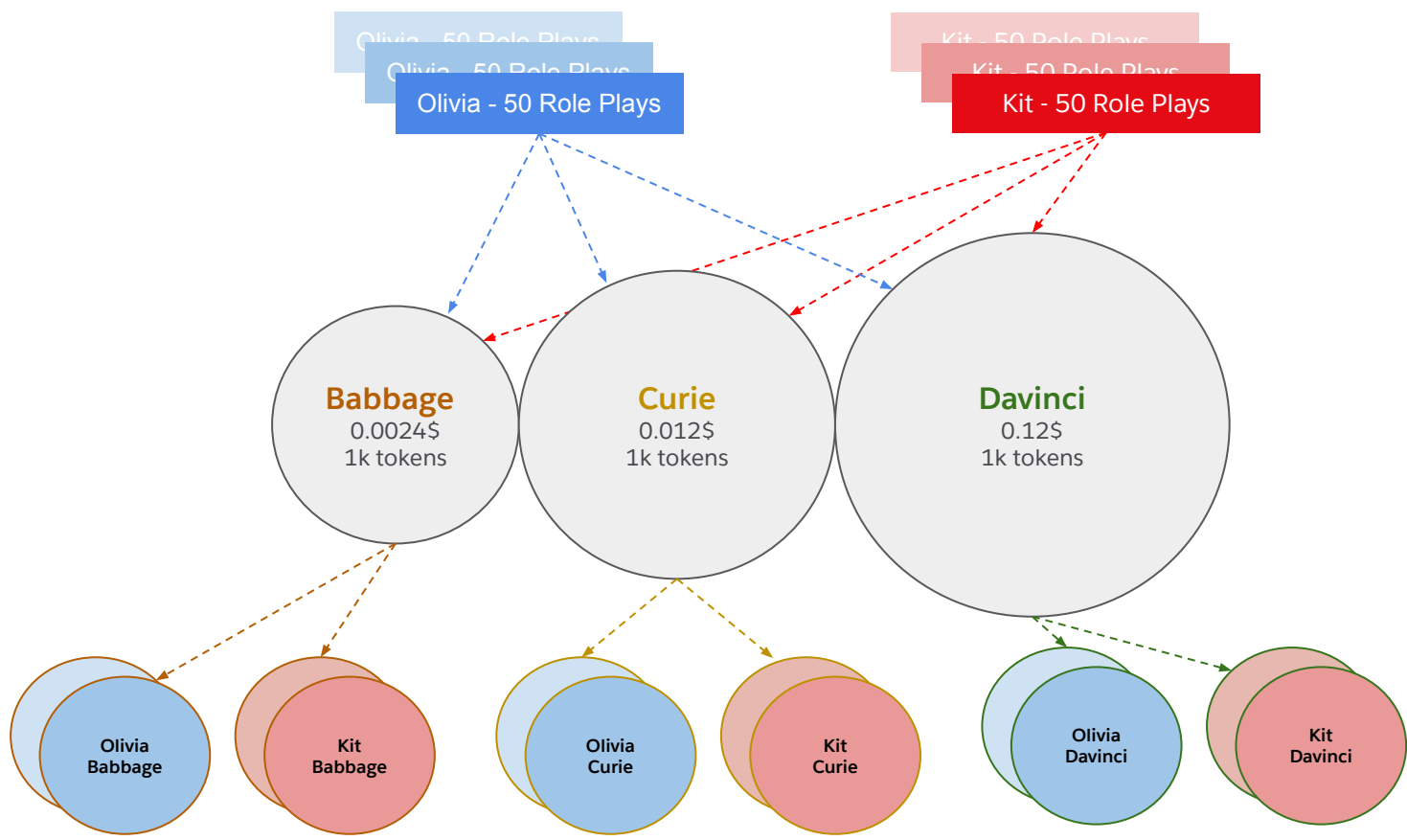
Different in every roleplay

Specific issue, demographics, etc.

GPT3 family LLMs

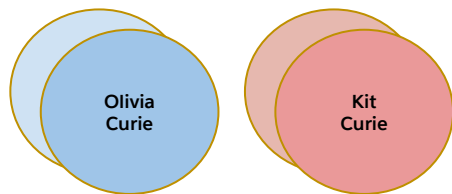
2

Fine Tuning



Manual Model Selection

For this use case, **model selection and QA** is mostly a qualitative exercise.



Generate a distribution of examples and manually check that,

- ✓ Models align with persona and issues described in the roleplays.
- ✓ Don't run into logical inconsistencies.
- ✓ Enable several conversation paths.
- ✓ Within pricing projections.

First Workshop Q4 2023



Workshops with Crisis Counselors.



Simulations in the training process.



Self-served simulations on the platform.

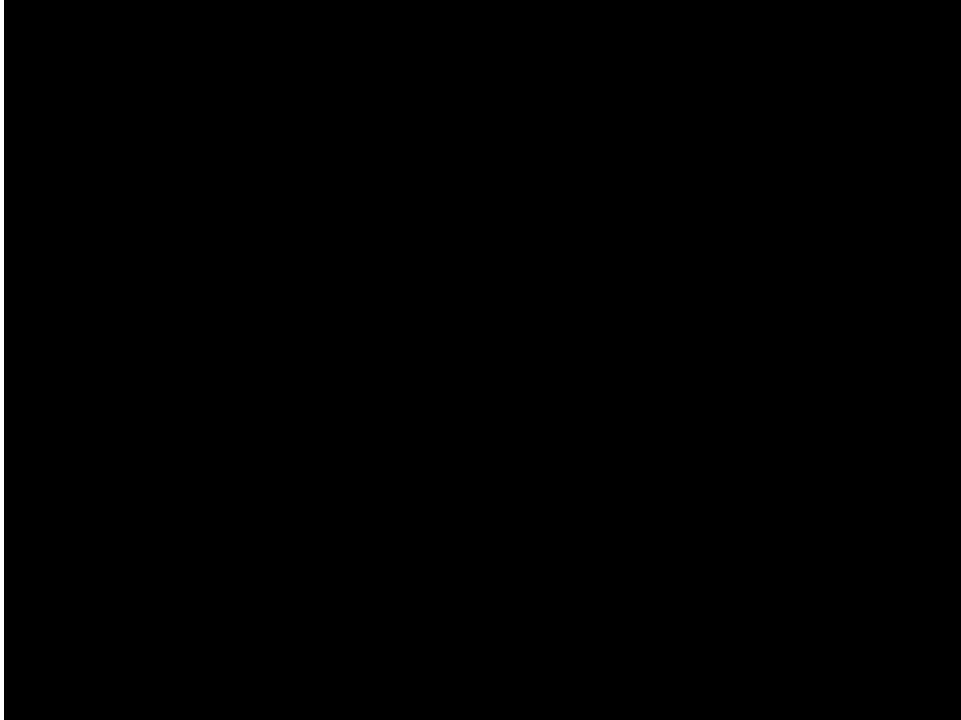
- ✔ Strong feedback loop with users.
- ✔ Product guardrails.
- ✔ Robust collaboration with stakeholders.

Demo

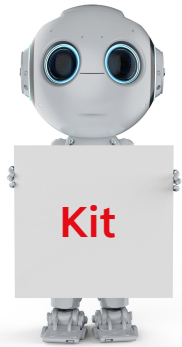


Olivia
Medium Risk

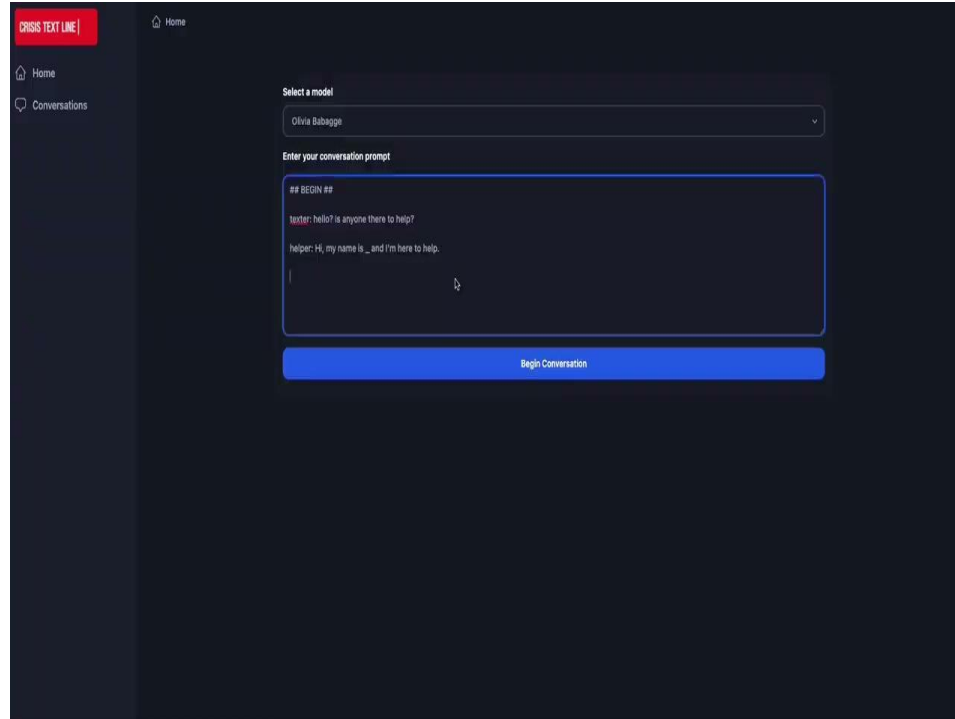
Suicidal thoughts,
but **no plans**



Demo



Kit
High Risk
Immediate risk
of suicide



Lessons Learned

New abstraction layers are democratizing generative AI. Non-experts are now able to enter the space and build solutions on top of state of the art models.

Fine-tuning capabilities of LLMs enable use cases that are built on synthetic data, reducing data privacy concerns.

For use cases that involve simulated conversations, model selection and QA is a qualitative exercise.

As technical challenges are abstracted away, product management challenges surface.

CLOSING

Summary

To reduce Crisis Counselor churn and improve conversation quality, we are complementing training with realistic scenario simulations.

Utilizing openAI's API. We have built and tested two simulated scenarios ready to use through our simulator UI.

At scale, API pricing becomes a factor. Explore in-house model building to reduce costs.

As next steps for scenario creation, focus on specific / critical parts of the conversation instead of simulating full conversations.

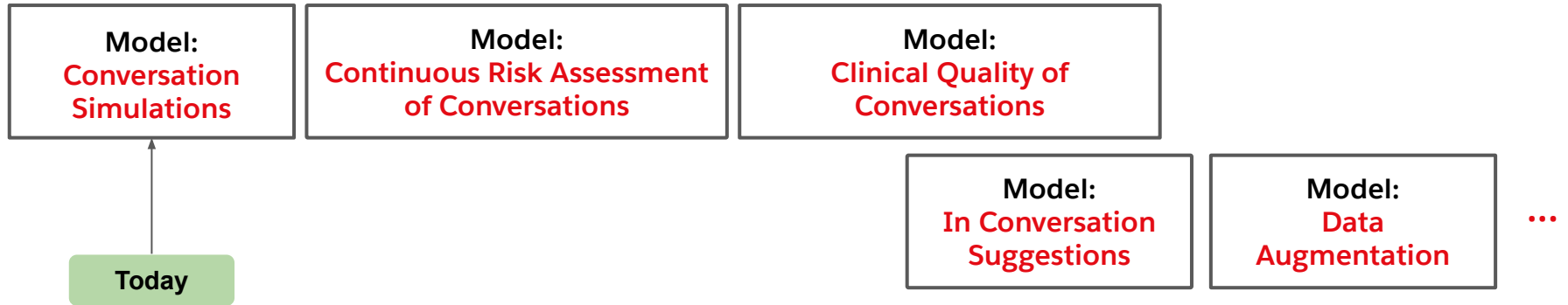
We are very excited about the future of AI at Crisis Text Line, **we are in a privileged position to test the impact of LLMs to do social good.**

What's Next?

You can help!

2023

2024



How can you help?

We are **HIRING**

ML Engineers

Data Engineers

Eng Managers

others

We need your **SKILLS**

ML and AI

DataOps

We need **VOLUNTEERS**

Become a crisis
counselor

signup.crisistextline.org

DONATE

Individual Giving

Fundraising

Corporate Matching

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