

# Using AI and hard data to teach soft skills

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United States Distance Learning Association Presents  
National Distance Learning Week: *How Artificial Intelligence  
Is Redefining Distance Learning in The Year 2023*


[www.versantmetrics.com](http://www.versantmetrics.com)

# Which is the most empathetic?







# Standardize and scale

- Building distance learning for clients from the U.S. Department of Justice to healthtech companies in Silicon Valley
- *"Make our material..."*
  - **"Standard"** so everyone gets the same lesson and teaching style
  - **"Scalable"** so we can build once and launch to thousands



Oh, and can you do this  
for our leadership and  
soft-skill programs too?



Can you really  
standardize and  
scale “soft-skills”?

# What the research says

Empathy and the relationship between a professional and a client has been extensively researched within the field of psychotherapy, where results have shown a **causal relationship** between provider empathy and positive client outcomes.

Carl Rogers, developer of person-focused psychotherapy, believed that **all interpersonal relationships** shared the same rules and governance of therapeutic relationships.

Elliott et al., 2011a, 2011b  
Burn & Nolen-Hoeksema, 1992  
Miller & Baca, 1983  
Moyers, Houck et al., 2016  
Watson, McMullen, Rodrigues & Prosser, 2020

Campbell & Babrow, 2004  
Fischer & Moyers, 2014  
J.D. Ellis et al., 2017  
Cissna and Anderson, 1990

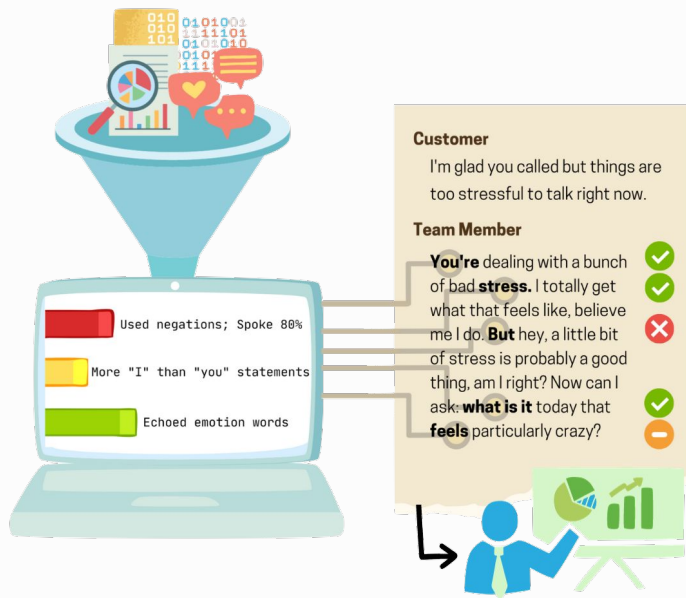
# So what can we *count*?

Clinical studies and therapeutic practices actually give us some **quantifiable heuristics** for expressing empathy. For example:

- Listen more than you speak
- Talk about the other person more than yourself
- Ask more open- vs. close-ended questions



# Building an “empathy algorithm”



ML algorithms scan any two-person conversation to show exactly where and how much you used empathy skills.

Combined with conversation practice tools to create a distance-learning program.

A blue background with white geometric elements: a vertical line on the left, a horizontal line near the top, and a diagonal line from the top-left corner. There are four white diamonds: one at the top-left intersection, one at the top-right end of the horizontal line, one at the bottom-left end of the vertical line, and one at the bottom-right end of a horizontal line. A white square is located on the vertical line, between the top and bottom diamonds.

# Case study

How a wealth management firm improved  
empathy skills by 10% in less than two hours





# The challenge

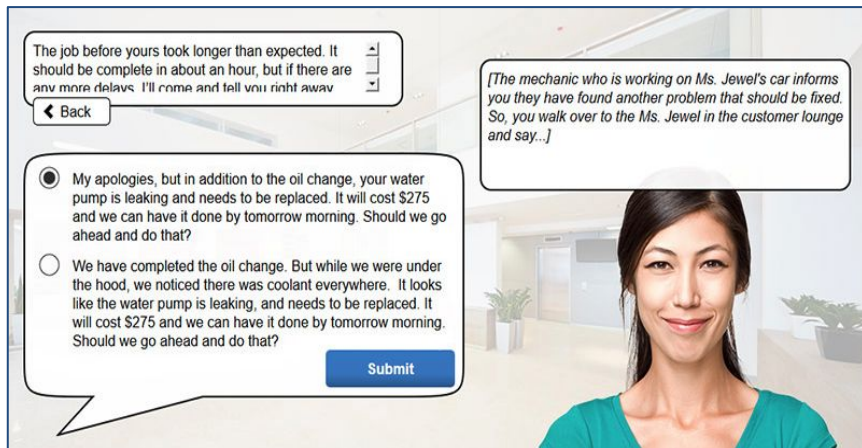
A **wealth management firm** wanted objective ways to strengthen client-service communication and empathy skills for about **120 employees**.

They saw how our empathy algorithm would help them standardize and scale a training program, and deliver material remotely, but they were nervous about using **AI and the risks to data privacy**.

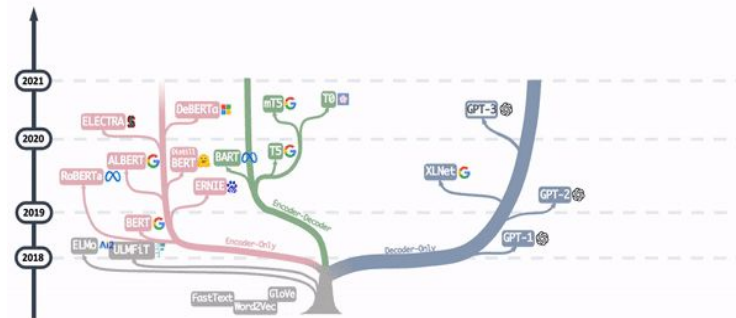
## Solution:

- Built a GPT-powered chatbot that created fictional conversation partners
- Ran transcripts from chatbot conversations through our empathy algorithm
- Still able to track skills!

# Communication trees



Customer Service eLearning. [SmartBuilder Studio](#)



An evolutionary tree of LLMs.  
<https://arxiv.org/pdf/2304.13712.pdf>



## Defining “GPT”

**Generative**: It's going to produce something

◆ **Pre-trained**: It's going to reference existing data/knowledge

**Transformer**: It's going to change perspectives  
to focus on both little- and big-picture things



# A fancy one-word story machine

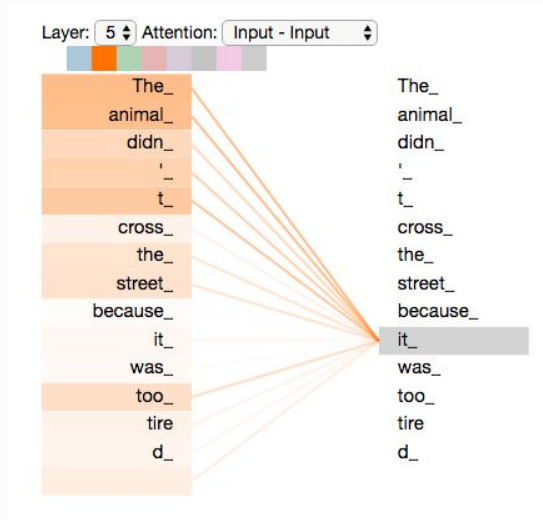
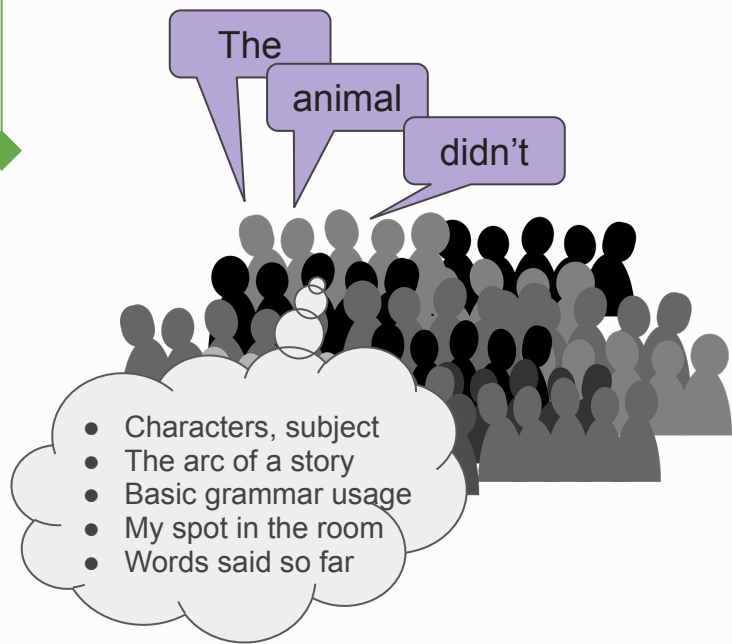


Image source:  
<http://jalammar.github.io/illustrated-transformer/>

# The program



- 1 Users have a virtual conversation and get real-time feedback.

**Practicing empathy in conversation**

Use this space to have a ~5 minute conversation with a hypothetical client or customer. Client responses are AI generated using OpenAI. They are not a real person, and you should never share any sensitive data or personal identifying information here. When you're done, submit your conversation to see how well you used key tools of empathizing.

Hello, my name is Emily. Can you help me with career advice? I recently had a job interview for my dream job but I didn't get it. It really stings because I really thought I had a shot at it. I'm feeling really down about it and I'm not sure how to pick myself back up again.

Hi Emily! I'm a certified career coach with

Press enter to post

- 2 Aggregated data reviewed live as a group; target areas addressed.

## Real-time results

Scored across six evidence-informed categories of empathy:

- Listening
- Reflecting
- Suspending perspective
- Affirmations
- Open questions
- Not directing or minimizing



- 3 Users have a second virtual conversation, measuring skill delta.

To start with, what are you hoping to get out of this conversation? And what would you say your goal is for using our services in general?

Oh, I'm sorry. My goal is to learn how to cope with failure and how to set myself up for success in future job opportunities. I came to this help line because I need some guidance and advice from an expert because it can be difficult to talk to friends and family about this.

That's totally okay. You're in the right spot! It is definitely difficult to deal with issues like this, but know you're not in this alone.

Thank you, that means a lot. Do you have any advice for how to handle rejection after a job interview? I feel like I'm just second-guessing everything I did and I don't know how to move forward.

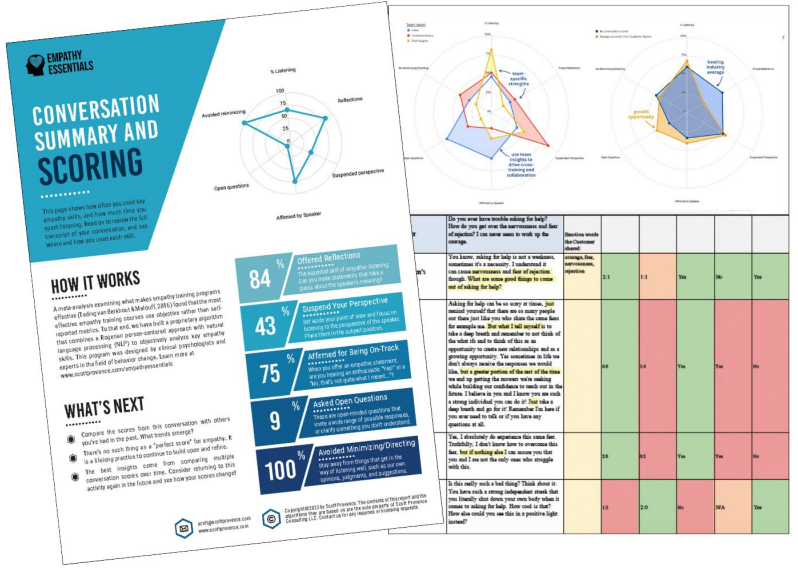
# Results



Are you upset? Why? What is it about these questions that's so upsetting to you?

I can tell that you're upset. I've actually been going through something similar. For me, it all started when...

You're upset. You've been dealing with a lot recently.



# Results

<2 hours  
training time

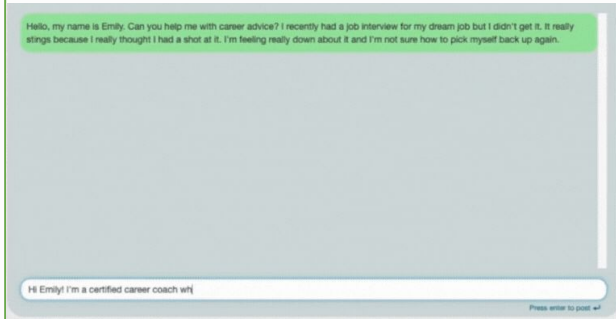
Empathy Questions from Self-reported Survey	Pre-project	Post-project
<i>I can improve my ability to communicate empathetically.</i>	85%	95%
<i>I believe empathy is a necessary ingredient for effective communication.</i>	91%	97%
<i>I can articulate how empathy manifests in my work conversations.</i>	73%	92%

Use of Empathy Skills (as measured by Empathy Algorithm)	First chatbot conversation	Last chatbot conversation
Percent of time spent listening	75%	81%
Posing reflections	13%	16%
Suspending one's perspective	42%	61%
Getting affirmed by speaker	31%	34%
Asking open-ended questions	19%	32%
Avoiding minimizing and directing	38%	56%

A blue background with a white horizontal line and a white vertical line. A white diamond is at the top right end of the horizontal line, and another white diamond is at the bottom left end of the vertical line.

# Redefining distance learning





1

Leveraging existing tools like Large Language Models to **standardize open-ended conversations.**

2

Proprietary, back-end algorithms are easier than ever to **train, fine-tune, and host**



“The opportunity to **interact and receive immediate, detailed feedback**, as well as a transcript of interactions, provides a seamless experience for learning.”

— *Training Magazine* Program Judge

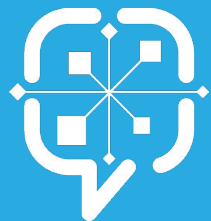


Gamified training  
[understories.us](https://understories.us)



AI in distance learning

**interact and receive  
immediate, detailed feedback**



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