Using AI and hard data to teach soft skills

Scott Provence, MA, MFA

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

www.versantmetrics.com
Which is the most empathetic?

You're upset.
I can tell that you're upset.
Are you upset?
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
Cisna 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.
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.
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

The animal didn’t

- Characters, subject
- The arc of a story
- Basic grammar usage
- My spot in the room
- Words said so far

Image source: http://jalammar.github.io/illustrated-transformer/
The program

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

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

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

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

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

<2 hours training time
Redefining distance learning
Leveraging existing tools like Large Language Models to **standardize** open-ended conversations.

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*
AI in distance learning

interact and receive immediate, detailed feedback