

AI in vocal analysis can predict couple therapy outcomes

 www.ejinsight.com/20171006-ai-in-vocal-analysis-can-predict-couple-therapy-outcomes/

Artificial intelligence (AI) can use data to interpret a couple's relationship. Their emotional control is more important than the content of their conversations, according to a study published in a scientific journal.

Researchers from the University of Southern California developed a machine learning algorithm to extract standard speech features, including pitch, variation in pitch and intonation, from 134 couples. The data was obtained from a two-year therapy session, the Hong Kong Economic Journal reports.

The purpose of the reasearch was to predict a relationship between these vocal features and the eventual outcome of the therapy. Results were earlier published in the scientific journal PLOS One.

Psychological assessment

According to the research, there has been a large number studies of divorces or failed marriages in traditional clinical psychology, but to a certain degree, many of these studies have flaws such as insufficient data.

This study enlisted 134 couples, where the mean ages of husbands and wives were 43.5 and 41.6, respectively. The study comprised three face-to-face interviews with each couple in a two-year therapy session.

It found that predictions of the eventual outcome of the couples' therapy made by AI had a success rate of 79.3 percent, better than the 75.6 percent attained by those using psychological assessments.

To interpret couples' relationships, AI extracted hints from the vocal tone of the conversations, like whether there are any emotional changes such as screaming and speaking in a higher pitch, instead of focusing on the actual content of the conversations.

The study was conducted to identify certain patterns in conversations between couples, such as pitch, speed and tone, which are often neglected by researchers.

Psychologists, on the hand, pay attention to details by reviewing the videos recorded during the therapy sessions to analyze the content of the couples' conversations and their body language. For example, clinical psychologists take note of whether the couples say things they don't mean or say things in a satirical manner.

AI and psychological assessments are complementary. The two combined can thus yield more accurate results.

This article appeared in the Hong Kong Economic Journal on Oct 4

Translation by Jonathan Chong

[\[Chinese version 中文版\]](#)

– Contact us at [\[email protected\]](#)

JC/RT/RA