Scientists create an AI-powered computer system that can tell if a baby is hungry, tired or in pain by listening to their cries

A computer program, powered by artificial intelligence, is capable of identifying and differentiating between babies' cries to tell parents what their children want. The system can detect whether the cry is because of hunger or fatigue, illness or if it is in pain.

While each baby's cry is unique, they share some common features when they result from the same reasons. The team used an algorithm based on automatic speech recognition to detect and recognize the features of infant cries.

The algorithm picks up the signals of the individual crier, and then stores that information and what the cry meant.

This means that it can be used in a broader sense in practical scenarios as a way to recognize and classify various cry features and better understand why babies are crying and how urgent the cries are.

Like a special language, there is lots of health-related information in various cry sounds. To recognize and leverage the information, ‘we have to extract the features and then obtain the information in it.'

The team hopes that the findings could be applicable to other medical care circumstances in which decision making relies heavily on experience. The ultimate goals are healthier babies and less pressure on parents and care givers.

'We are looking into collaborations with hospitals and medical research centers, to obtain more data and requirement scenario input, and hopefully we could have some products for clinical practice.'