Affective Computing is computing that relates to, arises from, or deliberately influences emotions

Our research is aimed at giving machines skills of emotional intelligence,

including the ability to recognize, model, and understand human emotion,

to appropriately communicate emotion, and to respond to it effectively.

We are also interested in developing technologies to assist in the development

of human emotional intelligence.

Our approach, grounded in findings from cognitive science, psychology,

neuroscience, medicine, psychophysiology, sociology, and ethics, is to

develop engineering tools for measuring, modeling, reasoning about, and

responding to affect. Thus, we develop new sensors, algorithms, systems,

and theories that enable new forms of machine intelligence as well as

new forms of human understanding.

Many of the challenges we face cannot be solved with existing engineering

tools; consequently, we also work at the frontiers of research in machine

learning, pattern recognition, signal processing, computer vision,

speech analysis, sensor design, human-centered and value-centered design, and more.

Applications include the development of intelligent human-computer systems

that learn from natural interaction, wearable computers for health and fitness,

sensors for measuring and reducing frustration in new products, tools for

human expression, and the development of new computational theories of affect and learning.