

The Promise of Affective Computing

The second chapter of the *Oxford Handbook of Affective Computing* is written by Rosalind Picard, the founder and director of the Affective Computing Research Group at MIT. Picard initially discusses skin conductance, motion, and temperature with regard to measurements of a wearable wristband. In the coming wave of 'Internet of Things' technologies, it is important to remember "skin conductance has been studied for more than 100 years. (pg. 11)" One difference between now and then is the kind of technology we have to study it and other emotional arousal.

While Rosalind Picard was in her tenure process at MIT, she became convinced that emotions play an essential role in perception, attention, rational decision making, and action selection. Taking a risk, Picard submitted a technology report titled 'Affective Computing' knowing that she might be labeled a misfit, and was initially rejected from IEEE. Additionally, Picard decided to co-author in Nicholas Negroponte's *Wired* column, and wrote a chapter in David Stork's *Hal's Legacy*, in both cases discussing affects and computing. Giving talks for free in some cases, Picard began the new discipline while getting a tenure and signing a book contract for her book 'Affective Computing' in 1996. Rosalind Picard claims her motivation is "that affective computing is an extremely important area of research. (pg.18)"

I strongly believe all the social sciences can benefit from systematic methods found in other empirical disciplines, and perhaps new kinds of fields can be created akin to affective computing. My thought is one where the kinds of analytics we get from emotive data can be used to communicate how we feel to those that matter the most to us, and while there are other use cases, I hope that the technology is used to continue to connect humanity. With Rosalind Picard's wearable devices, sympathetic nervous system activation is recorded by skin conductance. This kind of objective data allows us to support and understand our subjective perception of our emotions. Furthermore, this kind of technology allows humans to better understand each other.

Lastly, emotionally intelligent computers would be able to improve the user experience (UX) of its user, and this type of finding is further shown in many of the emerging technologies of our contemporary era.

In the 1990's scientists were literally laughed at for proposing affective computing concepts. "Emotion was being associated with being irrational and unreasonable. (pg. 13)" But in today's context, affective computing appeals "not just to researchers in computer science and human computer interaction, but also in medicine, literature, psychology, philosophy, marketing, and more. (pg. 18)"

Other topics:

Affective Computing

Affective Computing - Rosalind Picard published this in 1996. (pg. 18)

Neuroscience

Joe LeDoux - perceptual learning, rat learning to fear tone, without involving the usual cortical components, after the audio component was removed. (pg. 15)

Antonio Damasio - the role of emotion in rational decision making and behavior *Descartes's Error* (pg.15)

Psychology

Dane Goleman - published book called *Emotional Intelligence*, at the time the term was an oxymoron (pg. 17)