

Augmenting Empathy with Physiosocial Technology

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Imagining a world without empathy paints a grim picture for humanity. Empathy is at the basis of cooperation, bonding, altruism, and trust. In that light, empathic computing aims to develop technologies that can augment empathy between two or more individuals. To provide a basis for such technologies, a three level framework is presented based on psychology and neuroscience, consisting of cognitive empathy, affective empathy, and empathic responding. These three levels have a foundation in affective computing and social signal processing and pose different opportunities for empathic technologies. I will present five empirical studies that show ways of transforming these opportunities into technology for improving either cognitive empathy or affective empathy. In particular, I will show how computers can beat humans at recognizing emotions and how we can train people's affective empathy using physiological synchronization. When such empathic technologies come to fruition, they could improve cooperation and team performance, and strengthen bonds between people.

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