

Recent adventures with emotion-reading technology

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1 Abstract of the talk

This talk will share stories from recent investigations at the MIT Media Lab in creating technology to recognize and better communicate emotion. Examples include automating facial affect recognition online for sharing media experiences, gathering the worlds largest sets of natural expressions (instead of lab-elicited data) and training machine learning models to predict liking of the experience based on expression dynamics throughout the experience. We also have found that most people have difficulty discriminating peak smiles of frustration from peak smiles of delight in static images. With machine learning and dynamic features, we were able to teach the computer to be highly accurate at discriminating these. These kinds of tools can potentially help many people with nonverbal learning disabilities, limited vision, social phobia, or autism who find it challenging to read the faces of those around them. I will also share recent findings from people wearing physiological sensors 24/7, and how weve been learning about connections between the emotion system, sleep and seizures. Finally, I will share some of our newest work related to crowd sourcing cognitive-behavioral therapy and computational empathy, where sentiment analysis could be of huge benefit.