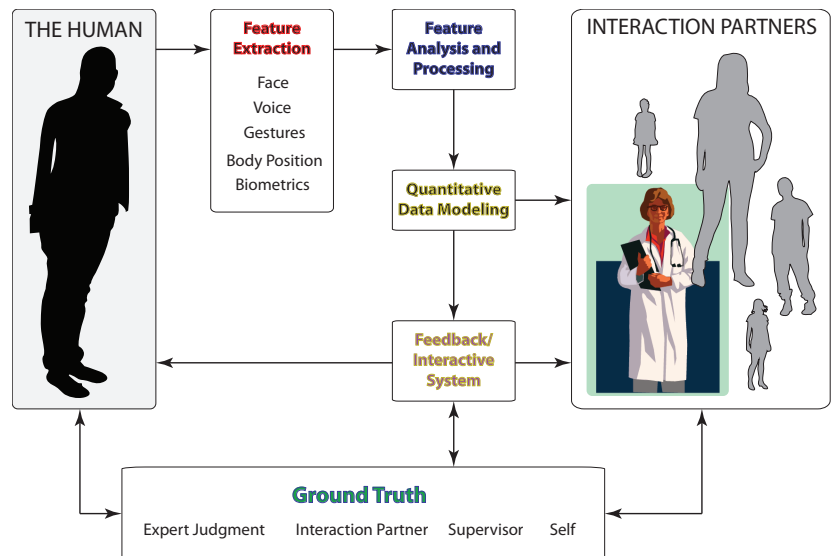
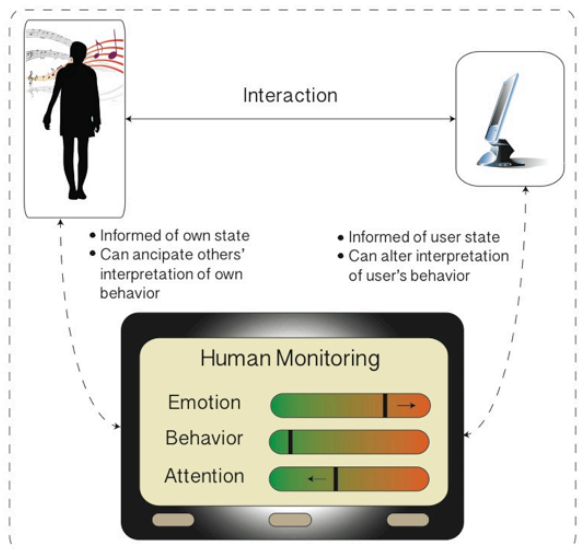


Intelligent Interactive Systems (IIS): Ubiquitous Computing Using Sensor-Based Environments

Major Design Experience



Today's world is becoming increasingly automated. This includes not only explicit interactions with automated systems, but also implicit sensing that accompanies many popular technologies. Explicit interactions include speech-based question answering with Siri and Google Voice. But what can we learn implicitly? How can we take advantage of the wealth of pervasive and ubiquitous computing platforms? How can we leverage distributed sensor environments?

Implicit interaction scenarios provide insight into the user, the ultimate target of any human-facing applications. We can ask a plethora of questions, building a complete model of our end user. A subset include:

- What is a user telling us through his/her behavior, gestures?
- How can we understand who a user is?
- How can we intuit what a user needs?
- How can we decide with whom a user should interact?

These are the questions that increasingly underlie Intelligent Interactive Systems (IIS). The focus of this class will be on providing methods that can be used to answer these questions and a semester-long project that ties these questions together through a new interactive technology.