Personalized Empathic Computing (PEC)

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Until a decade ago, computers were only used by experts, for professional purposes solely. Nowadays, the personal computer (PC) is standard equipment in most western housekeepings and is used to gather information, play games, communicate, etc. In parallel, users' expectations increase and, consequently, PCs are more and more adapted to our needs. The next phase in PC evolution is Personalized Empathic Computing (PEC).

When thinking of PEC, questions emerge such as: Who is the user and how to model his or her characteristics? In addition, both possibilities and constraints of technology have to be taken into account. To unravel human emotional state, psychophysiological techniques are employed. Audio and visual information processing is needed to handle the multimedia input. Virtual Reality can be employed to realize high level interaction between users and PEC systems.

The realization of PEC requires the cooperation among a broad range of disciplines; e.g., psychology, physiology, computer science, agent technology, interface design, and multimedia analysis. All will be illustrated by running projects, industrial applications, and the latest scientific research. Both the strength and the limitations of current state-of-the-art techniques will be indicated. With that we will look forward, to the future, which is not that far away anymore ...