

Now the mobile phone goes emotional

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Mobile devices include an increasing number of input and output techniques that are currently not used for communication. Recent research results by Dr Eve Hoggan from HIIT / University of Helsinki, Finland, however, indicate that a synchronous haptic communication system has value as a communication channel in real-world settings with users that express greetings, presence and emotions through presages.

-Pressure and tactile techniques have been explored in tangible interfaces for remote communication on dedicated devices but until now, these techniques have not been implemented on [mobile devices](#) or been used during live [phone calls](#), says Eve Hoggan.

Using a lab based study and a small field study, Doctor Hoggan and her co-workers show that haptic interpersonal communication can be integrated into a standard mobile device. The new non-verbal design was also appreciated.

-When asked about the non-verbal cues that could be represented by presages, the participants in our study highlighted three different approaches: to emphasise speech, express affection and presence, and to playfully surprise each other, she says.

When asked about the specific ways in which they adapted their communication style to accommodate the tactile modality, all of the participants stated that they tended to pause briefly after sending a presage to "make space for it in the conversation".

According to the longitudinal study results the participants' phone calls lasted on average 4 minutes and 43 seconds with an average of 15.56 pressages sent during each call. All phone calls involved the use of pressages.

The prototype developed in this research, ForcePhone, is an augmented, commercially available [mobile](#) device with pressure input and vibrotactile output. ForcePhone was built at the Helsinki Institute of Information Technology and Nokia Research Center, Finland.

Provided by University of Helsinki

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