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Towards Detection of Side Activities and Emotions of Anonymous TV Viewers through Body Postures

Supplementary material

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Towards Detection of Side Activities and Emotions of Anonymous TV Viewers through Body Postures

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KNOWLEDGE IN ACTION

Kinect invaded the living room for active gaming and interaction, it may create value while watching TV by detecting TV viewer emotions

Poses (and sequences of them) are used by humans to detect emotions.
Descriptions of pose hide personal details and thus provide more anonymity

Kinect was the fastest selling consumer electronics device at the time
and it can detect a user's pose

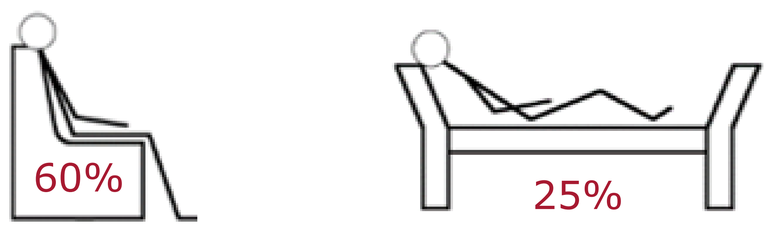
People do many things while "watching TV",
the kind of activities they do may relate to their emotional state

Study 1 (10m, 5f) verified activities and postures of TV viewers

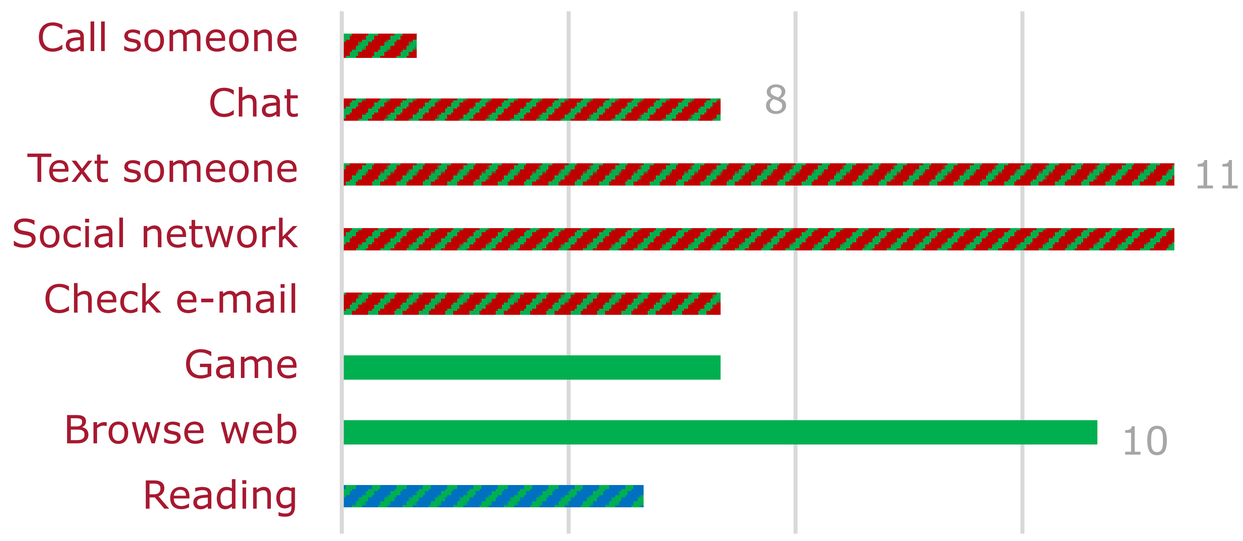
People commonly sit where Kinect can detect them

Between 2,5 and 4 meters from TV
corresponds to the detection range of Kinect

They mostly take relaxed poses



Common side-activities use technology



Study 2 (7m, 4f) investigated emotion detection from postures and activities

We confirmed results from Ray (2007) regarding emotions during clips

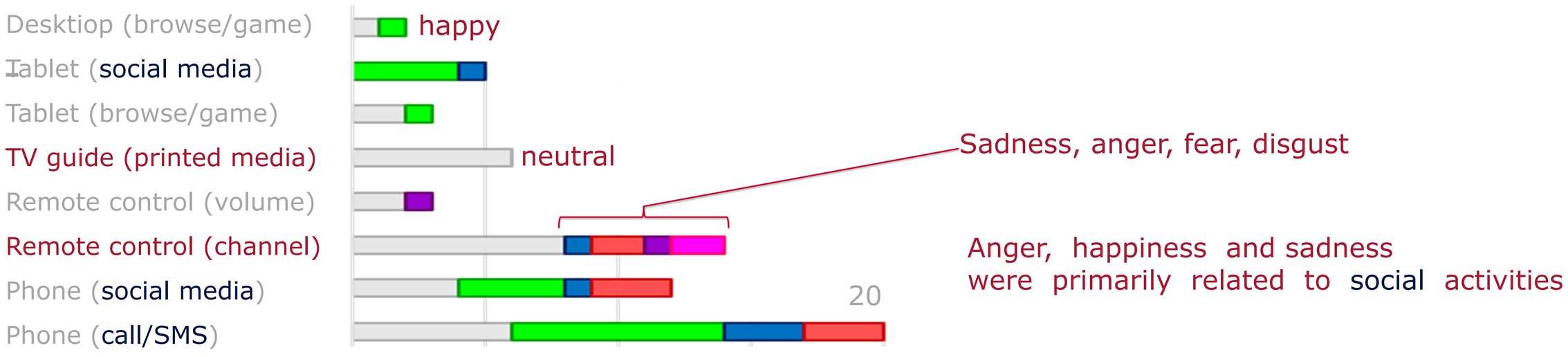
Except one clip where we used animation of leg surgery instead of real footage

Emotions did not affect postures

We detected acted side-activities (based on Study 1) using body poses

Accuracy of 72,9% for activity detection

We detected correlations in stated behavior while experiencing emotions



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