Trusting Smart Speakers: Analysing the Different Levels of Trust between Technologies

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Abstract : The growing usage of smart speakers raises many privacy and trust concerns compared to other technologies such as smart phones and computers. In this study, a proxy measure of trust is used to gauge users’ opinions on three different technologies based on an empirical study, and to understand which technology most people are most likely to trust. The collected data were analysed using the Kruskal-Wallis H test to determine the statistical differences between the users’ trust level of the three technologies: smart speaker, computer and smart phone. The findings of the study revealed that despite the wide acceptance, ease of use and reputation of smart speakers, people find it difficult to trust smart speakers with their sensitive information via the Direct Voice Input (DVI) and would prefer to use a keyboard or touchscreen offered by computers and smart phones. Findings from this study can inform future work on users’ trust in technology based on perceived ease of use, reputation, perceived credibility and risk of using technologies via DVI.