
Social Acceptability and Respectful Smart Assistants

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Abstract

Underneath the friendly facade, do you feel like there is something sinister going on with Siri? This paper highlights some of the problems with modern smart assistants, particularly in the way that they construct a relationship with their users which is manifestly different to the technical and legal realities. The notion of *respect* is offered as a means of conceptualising the types of interactions we might want with such devices in the future and identifying flaws in the current iteration of smart assistants.

Author Keywords

Respectful Behaviour; Social Acceptability; Smart Assistants; Dissonant Relationships

ACM Classification Keywords

H.5.m [Information interfaces and presentation]: Misc

Introduction

Many have described the constant surveillance which arises as a natural consequence of the Internet of Things (IoT) to be disconcerting. The leaking or exfiltrating of data by applications makes people feel vulnerable. In each individual case there are often ways to identify and correct the specific offending features that users find socially unacceptable, but is there an overarching theme? I believe that there

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CHI'18 Workshop on (Un)Acceptable?!—Re-thinking the Social Acceptability of Emerging Technologies, April 21, 2018, Montreal, QC, Canada.

is, and that this theme can be summarised as a lack of *respect*.

Enter the Smart Assistant

Existing in their modern guise since 2011, smart assistants have unfortunately come to embody both of the undesirable points above. Products such as Google Home and Amazon Echo collect data from around the home, and send unknown telemetry back to their creators. Devices are anthropomorphised (e.g. by giving them names), and considerable effort has gone into making the relationship that users have with their assistants feel friendly and informal.

But the *legal* relationship that users have with device makers is very different, and when this dissonance between perceived and actual relationships is brought to the fore its social unacceptability becomes apparent. Using the Alexa platform as an example, Amazon was issued a warrant in 2016 for audio recordings collected by an Echo unit in relation to a police investigation (which were subsequently released to law enforcement)¹. The event prompted concern as users began to realise that their assistants were not quite as they had been led to believe.

These issues have arisen due to the fact that voice interfaces allow for interactions with smart devices which approach natural conversation in a way not possible before. For evidence of this, see the pop-culture references included with many current smart assistants in an attempt to simulate conversation between friends.

Smart assistants *could* be restored to a socially acceptable state by making their interfaces reflect the agreement with

¹While the recordings were turned over with the permission of the device owner, Amazon did not need that permission in order to disclose the recordings to law enforcement.

Possible Examples of Respectful Behaviour

Voice activated devices

could offer the use of local processing models as well as those based in the cloud

Sensors might only record enough information to carry out their task (such as voice data garbled enough that one can only distinguish between speakers, and not discern what is being said).

Energy monitors could, instead of reporting real time statistics that can identify individual household events (such as use of a washing machine), send back usage quantised to each tariff.

the device manufacturer (but this is unlikely). More plausibly, device behaviour could be changed to be more in line with the projected facade.

Respectful Behaviour

When we conceptualise respect, we think about adhering to boundaries (including laws and regulations), but we also think about acknowledging traits in another which *demand* respect (including rights) and caring for others (supporting their long term goals) [1].

But how might a *machine* embody, or at least emulate, respect? Being transparent is an obvious starting point, but respectful behaviour could also be extended to include adherence to personal boundaries within the home or to the tailoring of functionality to user preferences; instead of issuing an ultimatum with respect to privacy (or rather, lack of), a device could offer to turn off specific functionality which required sending data outside of the home (see sidebar).

Conclusion

Modern smart devices marketed for the home are often perceived as creepy or unsettling, with a disconnect between the legal and technical relationships users have with their devices, and the relationship they believe they have. The notion of respect offers a way of conceptualising both the behaviour we might desire smart devices to possess, as well as highlighting the deficiencies in the products available today.

REFERENCES

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