OWNING AND SHARING:
PRIVACY PERCEPTIONS OF SMART SPEAKER USERS

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MOTIVATION

Intelligent personal assistant (IPA) like Amazon Echo or google home are increasingly introduced into our lives, allowing our data to be shared with third parties or our voice to be captured.

People who buy and install the devices usually accept the data usage aspects (**account owner**); other people who encounter the device might not. These could include spouses, children or flat-mates (**resident owner**) as well as **visitors**.

We aim to understand how visitors and resident owners perceive IPAs in shared spaces and compare their mental models, concerns, protection behaviours, and social norms.
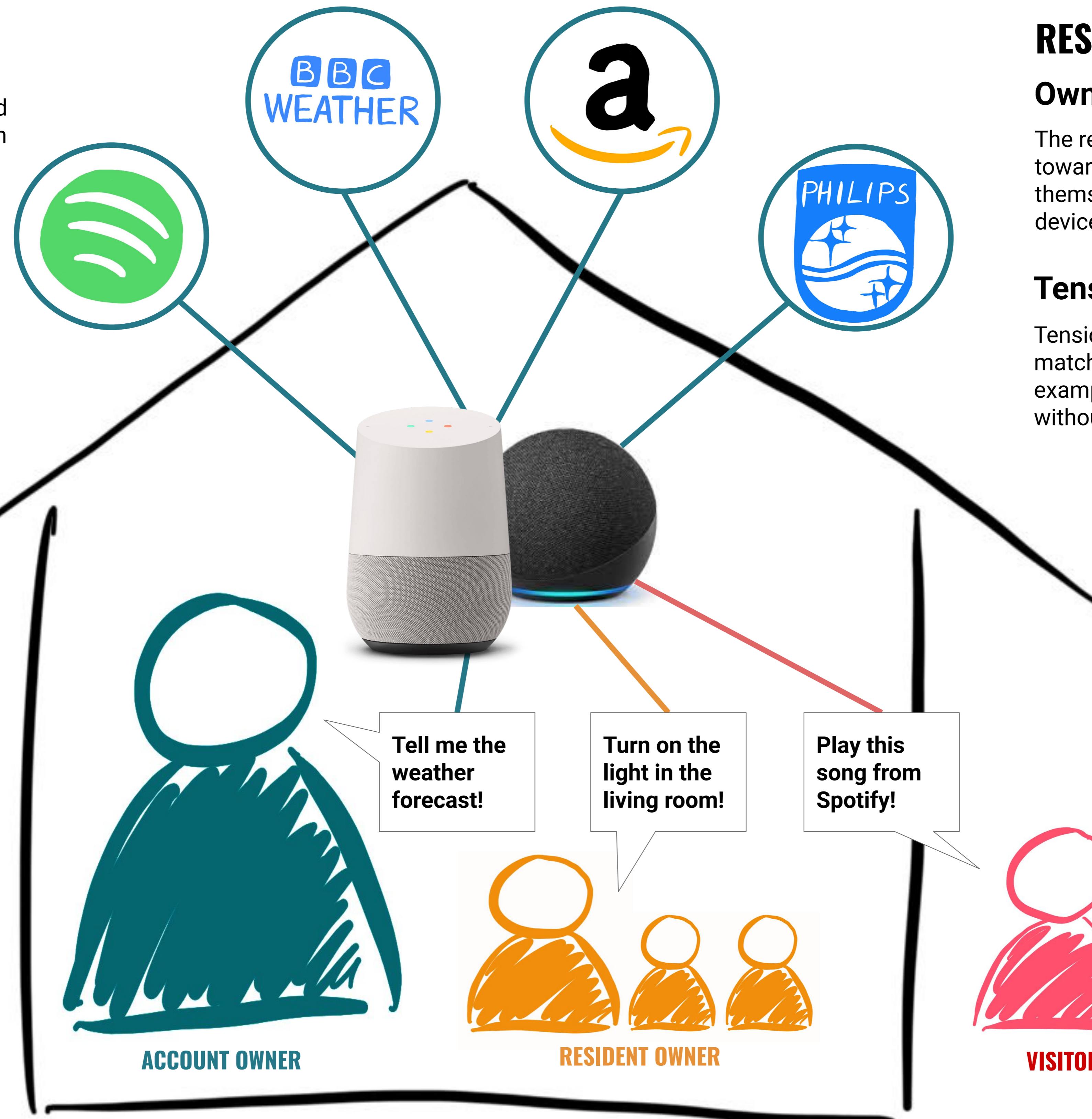
METHODOLOGY

Screening survey and sign up

Mixed method interview study with 19 participants (9 identified as owners, 10 as visitors) including question answering, drawing and free listing exercises.

Data analysis in several phases:

Initial open coding at first pass by lead researcher. Afterwards the research team determined the main analysis points (Inter-action context, mental model, concerns and protections, and social norms).

The main analysis included the categorisation for mental model, a second round of open coding by two researchers and affinity diagrams.

Link to paper

BBC WEATHER

PHILIPS

Tell me the weather forecast!

Turn on the light in the living room!

Play this song from Spotify!

ACCOUNT OWNER

RESIDENT OWNER

VISITOR

RESULTS

Ownership is not Binary

The relationships between users and ownership towards an IPA are complex. Resident owners consider themselves owners even if they have not bought the device or have access to the account.

Tensions in Multi-User Households

Tensions in multi-user spaces arise from mis-matched expectations and existing defaults. For example, adoption without consultation or usage without permission.

RO10 on coming home to a Google home in their living room: *"There was no foreknowledge on my part. I remember being remotely annoyed by that."*

AO3 on their google home connecting automatically to their flatmate's Google chrome cast: *"It made both of us uncomfortable. [...] Even as friends and family, we do not share everything. We have a boundary and we do not want Google to cross that boundary."*

Smart Speaker Interaction Etiquette

Participants expressed social boundaries as a kind of unwritten smart speaker etiquette.

AO19 on using someone else's Amazon Echo: *"At the end of the day it's their machine and I think if you start using it to whatever thing you want, it's a bit rude."*

RO2 on friends using their Amazon Echo: *"I can be snappy with it 'cause she is in my flat but you cannot be snappy, say 'thank you'."*