

# "For Me, It's Just My Partner's Hobby": User Roles and Dynamics in Shared Smart Homes

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## Executive Summary

As Smart Home Technology (SHT) transitions from a niche interest for early adopters to a mainstream consumer product, the social and technical dynamics within shared households have become a critical area of study. This briefing document synthesizes research from the doctoral thesis of Annika Sabrina Schulz, which explores the experiences of cohabitants—specifically partners and spouses—living in connected homes.

The core finding of this research is that smart homes are rarely "shared" in their management. Instead, they are characterized by a sharp division between **primary users** (typically men who manage and maintain the system as a hobby) and **secondary users** (typically women who interact with the technology reactively). This imbalance leads to significant knowledge gaps, dependencies, and the reinforcement of traditional gender roles. To address these socio-technical challenges, the research proposes more inclusive design strategies, such as the "SmartHome Handbook," a tangible user interface (TUI) designed to bridge the gap between enthusiasts and their less-involved partners.

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# Analysis of Key Themes

## 1. User Roles and the "Gendered" Smart Home

The research identifies a clear hierarchy in how individuals interact with SHT in cohabited spaces: \* **Primary Users (Gurus/Pilots/Drivers):** These individuals initiate the setup, manage the network, and perform "digital housekeeping." This role is predominantly assumed by men, who often view the smart home as an intrinsically motivated hobby or a way to demonstrate technical efficacy. \* **Secondary Users (Passengers/Passive Users):** These individuals, typically female partners, are less involved in the conceptual or technical aspects of the system. Their engagement is often a reaction to the technology already installed in their domestic space.

The study highlights that these roles are not merely functional but are "co-constructed" with gender identity. Men may perform "**digital chivalry**" by taking over technical tasks, while women may downplay their own technical expertise to align with societal gender norms.

## 2. Digital Housekeeping and Power Imbalances

"Digital housekeeping" refers to the labor involved in ensuring the home infrastructure runs smoothly (e.g., troubleshooting, managing security, and setting up devices). \* **Administrative Control:** The primary user typically acts as the "admin" of the household, which grants them the power to monitor cohabitants and guests, potentially putting in-home privacy at risk. \* **Dependencies:** Secondary users often rely entirely on their partners for access to home controls or support when systems fail. This creates a power imbalance where the secondary user lacks agency over their own living environment. \* **Fairness of Labor:** The research questions the workload distribution in these homes. If the primary user views the smart home as a hobby, but the secondary user is left with traditional domestic labor, the

technology may be reinforcing rather than easing the burden of housework.

### 3. The "Wife Acceptance Factor" (WAF)

A recurring theme in smart home communities is the **Wife Acceptance Factor (WAF)**, also known as the **Spouse Acceptance Factor (SAF)**. \* **Definition:** It refers to the level of approval a partner (traditionally the wife) gives to new technology or DIY projects in the shared home. \* **Critique:** While often discussed with good intentions by enthusiasts looking to improve their partners' experiences, the term WAF frequently carries a "misogynistic tone" that can make women feel unwelcome in the smart home community and reinforces gendered divisions of authority.

### 4. Design Exploration: The SmartHome Handbook

To mitigate the knowledge gap and promote shared decision-making, the research explores the concept of a **SmartHome Handbook**. \* **Concept:** A physical, tangible user interface inspired by the symbolic value of books. \* **Purpose:** To provide persistent, accessible documentation of the home's technological setup. \* **Inclusivity:** Unlike smartphone apps that are often siloed or complex, a physical book in a shared space acts as a "boundary object," facilitating communication and helping secondary users feel more in control of their environment.

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## Key Quotes and Context

### On the Nature of Smart Home Involvement

"For me, it's just my partner's hobby." \* **Context:** This phrase, which serves as the title of the dissertation, encapsulates the attitude of many secondary users. It highlights that SHT is often seen as

a personal pursuit of one partner rather than a shared household utility.

## On Gendered Technical Identities

**"Individuals demonstrate their self-efficacy and their agency towards technology... in a way that it aligns with societal gender norms." \* Context:** Discussing the Socio-Technical Gender Model, Schulz explains that people often perform their technical roles to reaffirm their masculinity or femininity (e.g., men showcasing "digital chivalry").

## On the Burden of Management

**"Reporting the statistics of households equipped with IoT devices obscures the view on the experiences of individuals." \* Context:** Schulz argues that market data showing high "household penetration" of smart devices ignores the fact that many people within those households may be struggling with or excluded from the technology.

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## Actionable Insights for Design and Implementation

| Challenge | Actionable Strategy | | :--- | :--- | | **Knowledge Gap** | Move beyond smartphone-only GUIs. Implement **Tangible User Interfaces (TUIs)** or physical documentation (like a "Handbook") that remains accessible to all residents in shared spaces. | | **Privacy & Power Imbalance** | Design systems that allow for **multi-admin roles** or more equitable access permissions, ensuring secondary users have the agency to shape their own data privacy. | | **Gendered Exclusion** | Avoid using industry jargon like **"Wife Acceptance Factor."** Use gender-neutral terms like "Household Acceptance Factor" (HAF) and focus on the needs

of all cohabitants during the design process. | | **"Nuisance" Interaction** | Reduce reliance on **voice assistants** for everything, as they can be noisy and disruptive to social harmony. Provide "analog-appearing" smart surfaces (e.g., e-textiles) that blend into the home decor. | | **User Research Gaps** | When testing smart home products, **recruit couples or whole households**, not just the primary enthusiast. This ensures the "passenger" experience is accounted for. |

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## Research Methodology Overview

The insights in this document are derived from four primary studies conducted by Annika Sabrina Schulz at Bauhaus-Universität Weimar and Bosch Research: 1. **Study 1:** Co-creation workshops with prospective users to explore "analog" smart surfaces. 2. **Study 2:** Analysis of smart home forums (WAF discussions) and interviews with secondary users regarding their early encounters with SHT. 3. **Study 3:** A cultural probe study where couples used floor plans and booklets to document their interactions and communication habits regarding technology. 4. **Study 4:** Expert interviews with book experts to design and prototype the "SmartHome Handbook."