

Objectives

1. Understand effects of smart home technologies on parent-child interaction.
2. Apply ecological & feminist perspectives to family microsystems & macrolevel changes in society.
3. Analyze need for educational & corporate interventions to help families become more tech savvy.

Background

How families affect and are affected by smart home technologies is a new research frontier, at the intersection of family life education and corporate responsibility.

Smart home speakers with voice assistants (Amazon's Echo, "Alexa") are used by multiple family members.

Alexa can contribute to positive family interactions, but negative consequences can arise from feeling powerless about corporate control over information privacy.

Theory & Research Question

Informed by concepts from 2 family theories:

- Ecological: bidirectional influences of nested systems
- Feminist: agency, power, gender, generation

Research question: How are family interactions and boundaries transformed, both agentially and reactively, in adopting and learning a new smart home technology?

Sample, Method, & Analysis

12 Families (N = 40 family members)

- Household: 9 two-parent, 2 single mother, 1 multigenerational
- Age: 19 children (7-17) & 21 adults (32-54)
- Race: 10 white & 2 mixed raced families
- SES: 4 working class & 8 middle class families

Data Collection

- In-depth interviews: 3 home interviews over 6 months (at baseline to install Alexa, mid-study, & final)
- Paper surveys on each family members' technology usage
- Post-study Qualtrics parent follow-up survey

Data Analysis

- Guided by constructivist grounded theory (Charmaz, 2014)
- Research team conducted open, focused, & selective coding on interviews, process notes, and surveys.

Results

THEME 1: Adopting Alexa as a Window on Family Dynamics

Families revealed insights about their interactions as they described "adopting" Alexa:

- Families situated experiences with Alexa in the culture of consumerism.
- Families enjoyed playing music, settling information disputes, and showcasing kids' tech skills.
- Placing Alexa in a central location (kitchen, living room) increased family connection.
- Alexa was a resource and instigator for increased family communication and intimacy.



THEME 2: Parent-Child Interaction Around Learning a New Technology

Adopting Alexa is a new context to understand family approaches to and tensions around learning.

- Technology can upend traditional parent-child power dynamics when a child is more tech savvy.
- Parents tended to praise sons' technology skill more than their own or their daughters.
- Children's greater enthusiasm or knowledge about Alexa led to positive family-level exploration.
- Parents retained power by setting boundaries on usage, ending fights over Alexa, or unplugging it.



THEME 3: Irrationality in the Presence of a Ubiquitous Technology

Families had concerns about Amazon monitoring and listening to them, but few responded rationally.

- Families were exhausted from work, school, and home life, leaving little energy to learn about Alexa's functionality and potential dangers.
- Families felt that Alexa's benefits (ease, convenience, immediacy) outweighed the negative concerns of privacy invasion.
- Few families researched Alexa's capacity, explored the app, or cleared their data.



Discussion

- Digital technologies are tools *and* weapons (Smith & Browne, 2019). Consumers cannot keep pace with corporate innovations that challenge their self-efficacy (Belanger & Crossler, 2019).
- Pros to adopting Alexa: Smart devices benefit families by providing convenient and constant access to media, entertainment, and learning that all family members can enjoy in novel ways (Dworkin et al., 2019; Hertlein & Blumer, 2014).
- Cons to adopting Alexa: Parents feel overwhelmed by corporate control over their private information collected by a smart technology, and rationalize their inability to act agentially.

Implications for Research and Practice

- Corporate transparency and consumer education are needed to help families understand privacy risks when adopting smart devices.
- Research on parent-child interactions can help platform providers generate useful features and protective policies that reflect familial concerns and learning needs.
- Without intervention, smart tech is contributing to the gendered, generational, and socioeconomic digital divide affecting family interactions and limiting opportunities to become tech savvy.

Selected References

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