Phone a Friend or Ask Alexa? Children’s Trust in Voice-Activated Devices

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Recommended Citation
Streble, Hailey M; Gregg, Laura K.; Daugherty, Evonie L.; Girouard, Lauren N.; and Danovitch, Judith H., "Phone a Friend or Ask Alexa? Children’s Trust in Voice-Activated Devices" (2020). Undergraduate Arts and Research Showcase. 31.
https://ir.library.louisville.edu/uars/31
**Phone a Friend or Ask Alexa? Children’s Trust in Voice-Activated Devices**

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**BACKGROUND**

- Voice-activated devices such as Google Home, Siri and Alexa are in many family homes and children are interacting with them (Common Sense Media VA Survey, 2019).
- Several studies show that children prefer human informants and some robot informants who are knowledgeable, accurate, and who have positive personality traits.
- It is unclear if children treat voice-activated devices the way they treat human informants.

**CENTRAL RESEARCH QUESTIONS**

Do children trust voice-activated devices and people to provide accurate information? Do children’s trust in informants change with the child’s age or by the question type?

**METHODS**

- **Participants:**
  40 4- and 5-year-olds (20 females, $M_{age} = 5.05, SD = .49$)
  40 7- and 8-year-olds (22 females, $M_{age} = 7.98, SD = .66$)

- **Introduction of Informants:**
  Participants were told they were going to play a question game with the experimenter’s good friend, Heather, joining from a video call as well as with a voice-activated device called Anu.

- **Question Types:**
  The experimenter asked three questions of each informant across three categories: stable, transient, and personal. Both Heather and Anu answered nine different questions.

- **Procedure:**
  Introduction of Informants:
  Participants were told they were going to play a question game with the experimenter’s good friend, Heather, joining from a video call as well as with a voice-activated device called Anu.

**RESULTS BY QUESTION TYPE**

- **Stable:** Older children were significantly more likely to trust Anu than Heather ($p = .008$). Younger children did not show a significant preference ($p = .117$).
- **Transient:** Neither age group showed a significant preference for either informant ($p = .352; p = .054$)
- **Personal:** Younger children trusted Anu significantly more than Heather ($p = .025$). Older children trusted Heather significantly more than Anu ($p = .015$).

**OVERALL RESULTS**

- There was a significant main effect of age where younger children were generally more trusting of both informant types than older children, regardless of question type ($p < .001$).
- There was a significant three-way interaction between informant type, question type, and age group ($p = .001$).

**DISCUSSION**

- Younger children were more likely to trust information than older children, regardless of the type of informant.
- Older children differentiated between question types, and were better able than younger children to recognize when a voice-activated or human informant would give a correct answer.
- We speculate that older children better understand that voice-activated devices are connected to the internet and can provide accurate answers to certain questions.
- These findings suggest that younger children may benefit from guidance from adults to understand and use voice-activated devices.

**REFERENCES & ACKNOWLEDGEMENTS**

- Special thanks to the families that participated and to Sacred Heart Preschool and AJ Preschool. Funding for this work was provided by a Mentored Undergraduate Research and Creative Activities Grant.