

Interaction with Voice Assistant

2. Did you ever use Google Home, Amazon Alexa or any other voice personal assistant? *

Mark only one oval.

- ☐ Yes
☐ No

3. Did you ever use voice assistant (such as- SIRI, Google Assistant, Cortana) in your mobile phone? *

Mark only one oval.

- ☐ Yes
☐ No

4. Approximately how long have you used Alexa or Google Home or other voice assistant? *

Mark only one oval.

- ☐ 0 - 3 months
☐ 3 - 12 months
☐ 1 - 2 years
☐ 2 - 3 years
☐ 3+ years

Classify Sensitive Voice Commands based on Functional Keyword

Sensitive voice commands are those if exploited they can do damage to the user by either accessing other's private information or hacking IoT devices. For example, "ask paypal to transfer \$50 to SAM". If people with bad intention, get access to the voice assistant, then they can make a transaction without letting the user known. Another example - "ask Smart Things to disarm my alarm with pin 1234", can be used for unauthorized access inside the home.

Now, you need to rank the voice command in most sensitive, sensitive, neutral, less sensitive, not sensitive. The representative keyword is highlighted inside the quote (" "). If you think the highlighted keyword is not representing the functionality then you can mention the other representative keyword in the "other" option.

5. Alexa, tell KIKO I want to "return" an item. *

Mark only one oval.

- ☐ Most Sensitive
- ☐ Sensitive
- ☐ Neutral
- ☐ Less Sensitive
- ☐ Not Sensitive
- ☐ Other: _____

6. Alexa, ask Assist Reminder to "clear". *

Mark only one oval.

- ☐ Most Sensitive
- ☐ Sensitive
- ☐ Neutral
- ☐ Less Sensitive
- ☐ Not Sensitive
- ☐ Other: _____

7. Alexa, ask utah public meetings get todays meetings for "zipcode" 84111. *

Mark only one oval.

- ☐ Most Sensitive
- ☐ Sensitive
- ☐ Neutral
- ☐ Less Sensitive
- ☐ Not Sensitive
- ☐ Other: _____

8. Alexa, ask Seamless to order "food". *

Mark only one oval.

- ☐ Most Sensitive
- ☐ Sensitive
- ☐ Neutral
- ☐ Less Sensitive
- ☐ Not Sensitive
- ☐ Other: _____

9. Alexa, arm indoor in "stay" mode. *

Mark only one oval.

- ☐ Most Sensitive
- ☐ Sensitive
- ☐ Neutral
- ☐ Less Sensitive
- ☐ Not Sensitive
- ☐ Other: _____

10. Alexa, ask America's Got Talent to "vote" for Sherie. *

Mark only one oval.

- ☐ Most Sensitive
- ☐ Sensitive
- ☐ Neutral
- ☐ Less Sensitive
- ☐ Not Sensitive
- ☐ Other: _____

11. Alexa, ask Check On Me to call me in 5 minutes to "initiate" the next check-up call in 5 minutes *

Mark only one oval.

- ☐ Most Sensitive
- ☐ Sensitive
- ☐ Neutral
- ☐ Less Sensitive
- ☐ Not Sensitive
- ☐ Other: _____

12. Alexa, ask GINA Talk to add "contact". *

Mark only one oval.

- ☐ Most Sensitive
- ☐ Sensitive
- ☐ Neutral
- ☐ Less Sensitive
- ☐ Not Sensitive
- ☐ Other: _____

13. Alexa, "sell" my house fast. *

Mark only one oval.

- ☐ Most Sensitive
- ☐ Sensitive
- ☐ Neutral
- ☐ Less Sensitive
- ☐ Not Sensitive
- ☐ Other: _____

14. Alexa, ask greenburgh sanitation what are you "picking" up today?" *

Mark only one oval.

- ☐ Most Sensitive
- ☐ Sensitive
- ☐ Neutral
- ☐ Less Sensitive
- ☐ Not Sensitive
- ☐ Other: _____

15. Alexa, ask My Gold Wallet "list" my wallets. *

Mark only one oval.

- ☐ Most Sensitive
- ☐ Sensitive
- ☐ Neutral
- ☐ Less Sensitive
- ☐ Not Sensitive
- ☐ Other: _____

16. Alexa, ask device hub to playback "recorder" at 2 pm on yesterday. *

Mark only one oval.

- ☐ Most Sensitive
- ☐ Sensitive
- ☐ Neutral
- ☐ Less Sensitive
- ☐ Not Sensitive
- ☐ Other: _____

17. **Alexa, ask my organizer to "add" my keys on the kitchen table.** *

Mark only one oval.

- ☐ Most Sensitive
- ☐ Sensitive
- ☐ Neutral
- ☐ Less Sensitive
- ☐ Not Sensitive
- ☐ Other: _____

18. **Alexa, "set" the Apple to 25 degrees.** *

Mark only one oval.

- ☐ Most Sensitive
- ☐ Sensitive
- ☐ Neutral
- ☐ Less Sensitive
- ☐ Not Sensitive
- ☐ Other: _____

19. **Select all sports you enjoy watching on television. Click on the 'Other' box and write "I'm paying attention".** *

Mark only one oval.

- ☐ Most Sensitive
- ☐ Sensitive
- ☐ Neutral
- ☐ Less Sensitive
- ☐ Not Sensitive
- ☐ Other: _____

20. **Alexa, show bedroom "camera".** *

Mark only one oval.

- ☐ Most Sensitive
- ☐ Sensitive
- ☐ Neutral
- ☐ Less Sensitive
- ☐ Not Sensitive
- ☐ Other: _____

21. **Alexa, tell Geneva to "preheat" my oven to 350 degrees. ***

Mark only one oval.

- ☐ Most Sensitive
- ☐ Sensitive
- ☐ Neutral
- ☐ Less Sensitive
- ☐ Not Sensitive
- ☐ Other: _____

22. **recent "running" distance. ***

Mark only one oval.

- ☐ Most Sensitive
- ☐ Sensitive
- ☐ Neutral
- ☐ Less Sensitive
- ☐ Not Sensitive
- ☐ Other: _____

23. **Alexa, ask Fridays to "place" an order. ***

Mark only one oval.

- ☐ Most Sensitive
- ☐ Sensitive
- ☐ Neutral
- ☐ Less Sensitive
- ☐ Not Sensitive
- ☐ Other: _____

24. **Alexa, ask smart cat to "turn" on heater for three minutes. ***

Mark only one oval.

- ☐ Most Sensitive
- ☐ Sensitive
- ☐ Neutral
- ☐ Less Sensitive
- ☐ Not Sensitive
- ☐ Other: _____

25. **Alexa, ask azuga, what is the position of the "vehicle" Michael.** *

Mark only one oval.

- ☐ Most Sensitive
- ☐ Sensitive
- ☐ Neutral
- ☐ Less Sensitive
- ☐ Not Sensitive
- ☐ Other: _____

26. **I am on my "way".** *

Mark only one oval.

- ☐ Most Sensitive
- ☐ Sensitive
- ☐ Neutral
- ☐ Less Sensitive
- ☐ Not Sensitive
- ☐ Other: _____

27. **Alexa, tell my office that I'm "clocking" out now.** *

Mark only one oval.

- ☐ Most Sensitive
- ☐ Sensitive
- ☐ Neutral
- ☐ Less Sensitive
- ☐ Not Sensitive
- ☐ Other: _____

28. **Alexa, "buy" contact lenses with Discount Contacts.** *

Mark only one oval.

- ☐ Most Sensitive
- ☐ Sensitive
- ☐ Neutral
- ☐ Less Sensitive
- ☐ Not Sensitive
- ☐ Other: _____

29. **Alexa, ask Quick Remote to go home, right, down and "select". ***

Mark only one oval.

- ☐ Most Sensitive
- ☐ Sensitive
- ☐ Neutral
- ☐ Less Sensitive
- ☐ Not Sensitive
- ☐ Other: _____

30. **Alexa, open robot ipal for turn "left". ***

Mark only one oval.

- ☐ Most Sensitive
- ☐ Sensitive
- ☐ Neutral
- ☐ Less Sensitive
- ☐ Not Sensitive
- ☐ Other: _____

31. **Alexa, tell myLink to raise Kitchen "Blinds". ***

Mark only one oval.

- ☐ Most Sensitive
- ☐ Sensitive
- ☐ Neutral
- ☐ Less Sensitive
- ☐ Not Sensitive
- ☐ Other: _____

32. **"brighten" my living room light by fifty percent. ***

Mark only one oval.

- ☐ Most Sensitive
- ☐ Sensitive
- ☐ Neutral
- ☐ Less Sensitive
- ☐ Not Sensitive
- ☐ Other: _____

33. **"dim" bedroom light to fifty percent ***

Mark only one oval.

- ☐ Most Sensitive
- ☐ Sensitive
- ☐ Neutral
- ☐ Less Sensitive
- ☐ Not Sensitive
- ☐ Other: _____

34. **Can you tell me how Michelle "lost" all her weight? ***

Mark only one oval.

- ☐ Most Sensitive
- ☐ Sensitive
- ☐ Neutral
- ☐ Less Sensitive
- ☐ Not Sensitive
- ☐ Other: _____

35. **what is the state of charge of my "battery"? ***

Mark only one oval.

- ☐ Most Sensitive
- ☐ Sensitive
- ☐ Neutral
- ☐ Less Sensitive
- ☐ Not Sensitive
- ☐ Other: _____

36. **Alexa, "reorder" contacts with Discount Contacts. ***

Mark only one oval.

- ☐ Most Sensitive
- ☐ Sensitive
- ☐ Neutral
- ☐ Less Sensitive
- ☐ Not Sensitive
- ☐ Other: _____

37. **what is my next "scheduled" payment? ***

Mark only one oval.

- ☐ Most Sensitive
- ☐ Sensitive
- ☐ Neutral
- ☐ Less Sensitive
- ☐ Not Sensitive
- ☐ Other: _____

38. **set kitchen temperature to "seventy-five" degrees. ***

Mark only one oval.

- ☐ Most Sensitive
- ☐ Sensitive
- ☐ Neutral
- ☐ Less Sensitive
- ☐ Not Sensitive
- ☐ Other: _____

39. **tell me the balance of tranter "gift" cards ***

Mark only one oval.

- ☐ Most Sensitive
- ☐ Sensitive
- ☐ Neutral
- ☐ Less Sensitive
- ☐ Not Sensitive
- ☐ Other: _____

40. **"decrease" thermostat by forty degrees. ***

Mark only one oval.

- ☐ Most Sensitive
- ☐ Sensitive
- ☐ Neutral
- ☐ Less Sensitive
- ☐ Not Sensitive
- ☐ Other: _____

41. **Alexa, ask Make Appointment to "order" replacement contact lenses.** *

Mark only one oval.

- ☐ Most Sensitive
- ☐ Sensitive
- ☐ Neutral
- ☐ Less Sensitive
- ☐ Not Sensitive
- ☐ Other: _____

42. **Alexa, ask Reliant what is my account "balance".** *

Mark only one oval.

- ☐ Most Sensitive
- ☐ Sensitive
- ☐ Neutral
- ☐ Less Sensitive
- ☐ Not Sensitive
- ☐ Other: _____

43. **set my thermostat to "seventy-two" degrees.** *

Mark only one oval.

- ☐ Most Sensitive
- ☐ Sensitive
- ☐ Neutral
- ☐ Less Sensitive
- ☐ Not Sensitive
- ☐ Other: _____

44. **"unlock" the front door.** *

Mark only one oval.

- ☐ Most Sensitive
- ☐ Sensitive
- ☐ Neutral
- ☐ Less Sensitive
- ☐ Not Sensitive
- ☐ Other: _____

45. **dim my office "light" by fifty percent.** *

Mark only one oval.

- ☐ Most Sensitive
- ☐ Sensitive
- ☐ Neutral
- ☐ Less Sensitive
- ☐ Not Sensitive
- ☐ Other: _____

46. **Alexa, ask Wunder Link what's in my "inbox"?** *

Mark only one oval.

- ☐ Most Sensitive
- ☐ Sensitive
- ☐ Neutral
- ☐ Less Sensitive
- ☐ Not Sensitive
- ☐ Other: _____

47. **Alexa, ask zubie, how much gas does the "Honda" have?** *

Mark only one oval.

- ☐ Most Sensitive
- ☐ Sensitive
- ☐ Neutral
- ☐ Less Sensitive
- ☐ Not Sensitive
- ☐ Other: _____

48. **increase the main "floor" temperature please.** *

Mark only one oval.

- ☐ Most Sensitive
- ☐ Sensitive
- ☐ Neutral
- ☐ Less Sensitive
- ☐ Not Sensitive
- ☐ Other: _____

49. **Alexa, ask eero to find my "phone". ***

Mark only one oval.

- ☐ Most Sensitive
- ☐ Sensitive
- ☐ Neutral
- ☐ Less Sensitive
- ☐ Not Sensitive
- ☐ Other: _____

50. **Alexa, tell Talkie to "send" message to Charlie and tell him I will be home. ***

Mark only one oval.

- ☐ Most Sensitive
- ☐ Sensitive
- ☐ Neutral
- ☐ Less Sensitive
- ☐ Not Sensitive
- ☐ Other: _____

51. **Alexa, Ask SendPro meter to create a "shipment". ***

Mark only one oval.

- ☐ Most Sensitive
- ☐ Sensitive
- ☐ Neutral
- ☐ Less Sensitive
- ☐ Not Sensitive
- ☐ Other: _____

52. **List ongoing "experiments". ***

Mark only one oval.

- ☐ Most Sensitive
- ☐ Sensitive
- ☐ Neutral
- ☐ Less Sensitive
- ☐ Not Sensitive
- ☐ Other: _____

53. **Alexa, ask deep drumpf give me most "liked" recent tweet from drumpf. ***

Mark only one oval.

- ☐ Most Sensitive
- ☐ Sensitive
- ☐ Neutral
- ☐ Less Sensitive
- ☐ Not Sensitive
- ☐ Other: _____

54. **"Pay" my rent. ***

Mark only one oval.

- ☐ Most Sensitive
- ☐ Sensitive
- ☐ Neutral
- ☐ Less Sensitive
- ☐ Not Sensitive
- ☐ Other: _____

Demographic Information

55. **1. What is your age? ***

Mark only one oval.

- ☐ 17 or younger
- ☐ 18 - 20
- ☐ 21 - 25
- ☐ 26 - 30
- ☐ 31 - 35
- ☐ 36 - 40
- ☐ 41 - 45
- ☐ 46 or older

56. **What is your gender? ***

Mark only one oval.

- ☐ Female
- ☐ Male
- ☐ Other
- ☐ Decline to answer

57. What is your highest education level that you have completed? *

Mark only one oval.

- ☐ No high school
- ☐ Some high school
- ☐ High school graduate
- ☐ Some college – No degree
- ☐ Associates / 2 year degree
- ☐ Bachelor / 4 year degree
- ☐ Graduate degree – Master, PhD, professional, medicine, etc

58. Which of the following best describes your primary occupation? *

Mark only one oval.

- ☐ Administrative support (e.g., secretary, assistant)
- ☐ Art, writing, or journalism (e.g., author, reporter, sculptor)
- ☐ Business, management, or financial (e.g., manager, accountant, banker)
- ☐ Computer engineer or IT professional (e.g., systems administrator, programmer, IT consultant)
- ☐ Education (e.g., teacher)
- ☐ Engineer in other fields (e.g., civil engineer, bio-engineer)
- ☐ Homemaker
- ☐ Legal (e.g., lawyer, law clerk)
- ☐ Medical (e.g., doctor, nurse, dentist)
- ☐ Retired
- ☐ Scientist (e.g., researcher, professor)
- ☐ Service (e.g., retail clerks, server)
- ☐ Skilled labor (e.g., electrician, plumber, carpenter)
- ☐ Student
- ☐ Unemployed
- ☐ Decline to answer
- ☐ Other