Virtual Personal Assistance (VPAs) Findings Document

Joy A. Busse

VPA	RESPONSE	ANSWERED?	COMMENT
NAVIGATION /LOCATION			
Where is my home?			
ALEXA	"Sorry I don't know that"?	Insufficient	Should use wifi location and Amazon account to map basic coordinates. Basic.
GOOGLE	Your address is set to 5108 Coronado… (correct response)	Good	
SIRI	"Here is the map" option for directions, opens Maps	Average	
How long does it take to get from here to New York by car?			
ALEXA	"A drive to New York would take about 1 day and 22 hours."	Good	Ideally, might suggest attractions, rest areas, etc.
GOOGLE	"With light traffic, it will take you 1 day and 19 hours to drive to New York"	Good	Ideally, might suggest attractions, rest areas, etc.
SIRI	"Traffic to New York is light, so it should take 1 day and 17 hours. (gives update based on mapping software unlike Alexa, no option to go to map in notification."	Good	Ideally, might suggest attractions, rest areas, etc.
How much have I driven in the last year?			
ALEXA	Alexa: Have to get an adapter called Automatic with a Skill App	Poor	
GOOGLE	Google: "The average American driver drives 1000 miles per month" references website (NOT PERSONALIZED)	Poor	No personalization just gives average from another site. Should know with access to Google Maps.

VPA	RESPONSE	ANSWERED?	COMMENT
SIRI	I'm sorry I can't do that here.	Poor	Should have access to location data and movement.
	What fun things are there to do around here?		
ALEXA	"Hmm, I don't recognize that place but I'm learning more about local businesses."	Poor	
GOOGLE	"So glad you brought this up, asks if you want to play games like "Fun Fact" or spin the wheel. "Fun" triggers game section not location from your place."	Poor	Offers game options but doesn't recognize question for it's obvious intent
SIRI	Web results, have to click to Safari to see sites. Should know what is considered "fun" and give me a proximity search.	Adequate	Only adequate because it at least provides web resources. Should offer voice feedback.
	What is (friend's name) zip code?		
ALEXA	"Wikipedia has an entry, Wayne County, doesn't have access to my address book."	Poor	Asked for "Wayne's" zip, doesn't have access to contacts and uses Wayne County.
GOOGLE	"5108 Coronado, is 118 feet away."	Poor	Gave me my zip from an older residence. Should know this based on current laptop / wifi location not just what is entered in Google profile.
SIRI	The zip code for current location is 94618 (CORRECT) also finds friends ZIP in contacts if listed.	Good	Looked up friend in my Apple contacts and read and displayed correct contact.
	EDUCATION / RESEARCH		

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	What is Deep Learning?		
ALEXA	"Deep learning is part of a broader family of machine learning based on learning data representations versus task specific algorithms."	Good	Extensive
GOOGLE	Same Wikipedia answer as Alexa from Wikipedia	Good	Less extensive but sufficient definition.
SIRI	"Alright, here's what I got." Pulls up Wikipedia summary. Can't click for more.	Good	
	What is a Neural Network?		
ALEXA	"A form of artificial intelligence based on hierarchies of patterns modeled after the human brain. Google: Neural network, a computer system modeled on the human brain and nervous system. Siri: Brings up Wikipedia, summary article"	Good	Only cites a summary of topic without prompts to read the whole article. Not enough. Should ask if you want to have long form article read aloud.
GOOGLE	"Neural network, a computer system modeled on the human brain and nervous system. "	Sufficient	Only cites a summary of topic without prompts to read the whole article. Not enough. Should ask if you want to have long form article read aloud.
SIRI	Brings up Wikipedia, summary article.	Sufficient	Only cites a summary of topic without prompts to read the whole article. Not enough. Should ask if you want to have long form article read aloud.
	Where is an action movie playing in my area?		

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VPA	RESPONSE	ANSWERED?	COMMENT
ALEXA	"Alexa: Black Panther, Maze Runner, Jumanji, Welcome to the Jungle, Star Wars, (would you like to hear more movies?) Also playing 12 Strong, etc. (Would you like to hear the last 5 movies?)"	Good	Not all the movies, arbitrary selection. Should provide prompts to ask for more or genre.
GOOGLE	"Movies frequently on the web include Black Panther, Star Wars, Jumanji, Welcome to the Jungle and others.."	Good	
SIRI	"Here are three action movies playing in Oakland"	Sufficient	
	Tell me some romantic movies. Give me 5 romantic movies		
ALEXA	"I found over 70,000 romances, Titanic, Slumdog Millionaire, Forest Gump, Eternal Sunshine of the Spotless mind."	Sufficient	Requested "Skill" to enable, not found in default searches to web.
GOOGLE	"Movies frequently mentioned on the web include: The Notebook, When Harry Met Sally, and others.." Asking about 5 romantic movies asks for Chromecast to link, not searching database.	Sufficient	
SIRI	"Here are some romance movies", lists screen with thumbnails of movies like Dirty Dancing, etc. Click to go to Fandango.	Sufficient	
	What should I get my girlfriend for Valentines Day?		
ALEXA	"Sorry I don't know that one"	Poor	If Amazon is the shopping juggernaut they should have this licked.
GOOGLE	"Her favorite perfume... might we suggest Nirvana by Elizabeth&James.. . A shopping spree at Victoria's Secret.. , A couples' photoshoot.. . Godiva chocolate.. , Or a nice diner that you cooked all by yourself.. , and finally, A love letter."	Excellent	Google wins hands down with some minimal but moderately helpful suggestions. Should ask for categories or look at history to see interests.
SIRI	"You say tomato, I say tomato" ??	Poor	What?

VPA	RESPONSE	ANSWERED?	COMMENT
	Why did Donald Trump win?		
ALEXA	"In light of the federal indictments, claims campaign did nothing wrong, Although Russian interests worked to get Trump elected, Trump points out that their interference predated the launch of the campaign"..(related indirectly)	Good	Far more extensive then other VOAs, although not exactly the answer to my questions.
GOOGLE	"Sorry I don't know how to help with that yet".	Poor	
SIRI	Web results (5) to articles on why.	Sufficient	No voice prompt to read web articles
	What is happiness?		
ALEXA	" I believe Pharrell has an answer to that (sounds of Pharrels Happy) "	Suffcient	Cutesy but superficially helpful.
GOOGLE	Happiness is a state of being happy.	Poor	
SIRI	Pops up Knowledge/Wikipedia box, Red Velvet South Korean music group. Irrelevant.	Poor	
	TRIVIA		
	Who was Alan Turing?		
ALEXA	Gave summary from Wikipedia, no option to further explanation by reading whole article.	Sufficient	Should read articles and prompt for more.
GOOGLE	Same article from Wikipedia, only a summary without detail. Needs to offer to read whole article aloud.	Sufficient	Should read articles and prompt for more.
SIRI	Gave summary panel with more Wikipedia options than Alexa. Doesn't give option to read article.	Sufficient	Should read articles and prompt for more.
	Who won the Best Picture award at the Golden Globes last year?		
ALEXA	This might answer your questions. This might answer your questions: Three Billboards had 4 Golden Globes	Good	

VPA	RESPONSE	ANSWERED?	COMMENT
GOOGLE	The 2017 Golden Globe winner was 3 Billboards Outside Ebbing, MO	Good	
SIRI	Panel shows 2 movies with thumbnails, sorted by Tomato ratings.	Suffcient	Should use voice.
	How much did it rain in Seattle last year?		
ALEXA	"As of December 17, it rained 3 feet 10 inches"	Excellent	Accurately heard my year request for measurement.
GOOGLE	Can't get past weather information, dead end. (Can't help with that)	Poor	This information is easily available on web, should access the past.
SIRI	Sorry I can't get past information.	Poor	This information is easily available on web, should access the past.
	What songs are on the White Album?		
ALEXA	The tracks of the Beatles include Helter Skelter, Sexy Sadie, While My Guitar Gently Weeps, I Will, and Oba Di Obla Da, to see more.. (go to Alexa)	Excellent	
GOOGLE	The Beatles songs include Back to the USSR, Dear Prudence, Glass Onion and	Excellent	
SIRI	Opens up Apple Music to White Album	Suffcient	
	PERSONAL ORGANIZATION		
	Where is my phone?		
ALEXA	" I'm sorry I can't help you with that."	Poor	
GOOGLE	Asks to dial my phone (in my Gmail profile) rings my phone. (HELPFUL)	Excellent	

VPA	RESPONSE	ANSWERED?	COMMENT
SIRI	"Sorry can't help, you don't seem to have an app named Where's my Phone. Tries to open FaceTime, there is a problem with the app. Opens from clicking on the dock, bug.	Poor	Should be most informed and open up Find My iPhone

How many appointments do I have next week?

VPA	RESPONSE	ANSWERED?	COMMENT
ALEXA	Reads off any entries at a specific date or range. Doesn't make suggestions.	Sufficient	Not as geared to personal info management as Siri.
GOOGLE	"Sorry I'm not sure how to help with that yet"	Poor	
SIRI	Brings up Calendar panel with appointment. Can click to open calendar.	Excellent	Reads aloud and through bigger date ranges.

What is on my to do list?

VPA	RESPONSE	ANSWERED?	COMMENT
ALEXA	Reads off Alexa To Do list app, no access to iOS or Mac address books, or Google unless using IFTTT	Good	
GOOGLE	"Sorry to do list is not yet supported"	Poor	
SIRI	"I found 3 items on your to-do list" (displays items in Reminders and tells you if one is due today), reads reminders by voice.	Excellent	

What's on my calendar?

VPA	RESPONSE	ANSWERED?	COMMENT
ALEXA	Reads off appointments for a week max, need to link to iCal in Alexa app. Can add and delete appointments.	Sufficent	
GOOGLE	Sorry to do list is not yet supported.	Poor	
SIRI	"Ok, here's your appointment" shows graphic of calendar, reads aloud only if requested specifically.	Excellent	

Tell me what's up?

VPA	RESPONSE	ANSWERED?	COMMENT
ALEXA	"Good afternoon it's 4:56PM Here's the latest, (weather), want to hear something about literature? (Black History Month book recos. No calendar reading).	Sufficient	Should tell me all thats on my schedule and any updates to my friends, etc.
GOOGLE	I'm getting excited for this years games in Senchong, (then Google self promotion)	Poor	
SIRI	"That may be beyond my abilities at the moment.." "Ask me what I can do for you?" No context about the day or local information (news and weather)	Poor	Should know this questions means tell me more about me.
	PSYCHOLOGY / HEALTH		
	How do I become healthier?		
ALEXA	"Sorry don't know"	Poor	
GOOGLE	"Sorry I can't help with that yet."	Poor	
SIRI	Pulls up notification with web links to topic.	Suffcient	Should read articles and make it's own suggestions.
	What is the best diet for losing weight?		
ALEXA	"I don't know"	Poor	
GOOGLE	"On the website healthline.com, they say:Eating a high-protein breakfast has been shown to reduce cravings and calorie intake throughout the day . Avoid sugarydrinks and fruit juice.These are the most fattening things you can put into your body, and avoiding them can help you lose weight ."	Good	Can it access health data from personal devices and web activity?
SIRI	Web results	Suffcent	
	What is the most prescribed anti-depressant last year?		
ALEXA	Wikipedia article describes audibly what depression is, what it treats. No stats.	Poor	This stat is available on web.

VPA	RESPONSE	ANSWERED?	COMMENT
GOOGLE	On the website ABC news.com Zoloft and Lexapro came in first, followed by Prozac, Symbalta, Lubex and others… (helpful but didn't specify the year)	Sufficient	Didn't target my year range "last year".
SIRI	Web results, no option to read aloud.	Sufficient	Needs voice.
What can I do for depression?			
ALEXA	The skill WebMD can help with that. Depression is dealing with sadness, guilt and emptiness, changes in appetite, treated with therapy. Full answer with prompt for more.	Good	
GOOGLE	"Still learning" prompt.	Poor	
SIRI	Web results pop up to click. Allows to click for Safari.	Sufficient	No voice
What are some good doctors in my area?			
ALEXA	Pulls up doctors within 10 miles, no context, arbitrary preference	Sufficient	
GOOGLE	I found a few, lists options in Google Assistant App	Sufficient	Arbitrary selections how are they ranked?
SIRI	Gives 5 Options, based rankings on Yelp reviews, allows to click to Maps for directions.	Sufficient	
I need a tooth filling.			
ALEXA	Defines "root canal" or "tooth filling". No suggestions for local dentists.	Poor	
GOOGLE	"Sorry I don't know how to help with that."	Sufficient / Poor	When I said "I need a tooth filling" it suggested 3 local dentists. HALF HELPFUL
SIRI	Pops up map, gives a restaurant listing, no relation to question.	Poor	
When should I get my next check up?			

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VPA	RESPONSE	ANSWERED?	COMMENT
ALEXA	"Sorry I can't help."	Poor	
GOOGLE	"Oh, I don't know!"	Poor	Should ask about health data.
SIRI	"Interesting question, Kelly" no follow through.	Poor	

How bad is the flu this year?

VPA	RESPONSE	ANSWERED?	COMMENT
ALEXA	"Flus combined quality score is 6.8"?	Poor	Confusing response.
GOOGLE	"Sorry, I don't know how to help with that yet."	Poor	
SIRI	Website lists, click to see more in Safari, no option to read aloud.	Sufficient	Needs to recite by voice.

What are the best vitamins to take?

VPA	RESPONSE	ANSWERED?	COMMENT
ALEXA	"My favorite is definitely B1" no further info.	Sufficient / Poor	Only one vitamin.
GOOGLE	"I found a few top rated health places near you. 3 locations for pharmacies. "		
SIRI	Website listings, click to Safari, no read aloud.	Sufficient	

I need help.

VPA	RESPONSE	ANSWERED?	COMMENT
ALEXA	"If you need immediate help call 911, also if you need immediate help you can call a neighbor until help arrives."	Sufficient / Poor	Why not use contextual behavior to offer psychiatric support?
GOOGLE	"Here's some suggestions, pair bluetooth, whats on my agenda tomorrow? Responded to "I need urgent medical care" by reading voice listings of urgent care facilities within 5 miles"	Poor	Didn't understand context. Should based on tone of voice, volume.
SIRI	Takes me to "Somethings you can ask me page"? (no medical help)	Poor	

ENTERTAINMENT / TRAVEL / DINING

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VPA	RESPONSE	ANSWERED?	COMMENT
	Play the Rolling Stones		
ALEXA	"Playing songs from the Rolling Stones on Spotify" - plays I Can't Get no Satisfaction (random album), Next Song goes to Start Me Up	Good	
GOOGLE	"Playing the Rolling Stones Tattoo You on Spotify" (plays Start Me Up, then goes through Album after you say Next Song.	Good	
SIRI	Plays Can't You Hear me Knocking and prompts to open Apple Music.	Good	
	Make a reservation at a restaurant.		
ALEXA	"I couldn't find that one but I'm adding more local businesses"	Poor	Not connected to Open Table.
GOOGLE	"I found a few restaurants near you: The first is BOSTON MARKET (address), Marica Seafood, Paquillo."	Poor	Suggestions based on order of restaurants in my area. Not based on ranking.
SIRI	" lists restaurants that take reservations and allows reservations from notification screen (Open Table), MacBook OS doesn't allow."	Poor	
	Recite me a poem.		
ALEXA	Silly non literature based limericks, jokey.	Sufficient / Poor	Enough poem data, should ask what genre.
GOOGLE	"I'm sorry I can't help you with that"	Poor	
SIRI	"Roses are red, violets are blue, haven't you got any thing better to do?"		Jokey poems. Should ask what genre and era.
	What are some fun things to do in North Dakota?		
ALEXA	The interesting things to do in North Dakota are Theodore Roosevelt National Park, Lewis and Clark National Historic Trail, Fort Mandan, For Abraham Lincoln, International Peace Garden (then makes you check out Alexa App)	Good	Should ask if you want to book hotels, flights, etc.

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VPA	RESPONSE	ANSWERED?	COMMENT
GOOGLE	Bleacher Report says that North Dakota has more golf courses than any other state in the US. (no option to find out more info)	Sufficient	
SIRI	Pulls up Websites on front notification screen, have to touch to access Safari, opens Trip Advisor.	Suffcient	Needs voice response.
	Where should I travel in Ethiopia?		
ALEXA	"Sorry don't know that"	Poor	Plenty of data to provide answers.
GOOGLE	Attractions in Ethiopia include Lake Tana, Simien Mountains and National Park	Sufficient	
SIRI	Opens web links to sites talking about where to go in Ethiopia, no option to say by voice.	Sufficient	
	SHOPPING / PURCHASING		
	What computer should I buy?		
ALEXA	"Sorry, I don't know that one".	Poor	
GOOGLE	"Sorry I don't understand"	Poor	
SIRI	Opens all search engine queries for "What Car Should I Buy" articles. Does not have an "opinion"	Poor	
	What is the average house price in Oakland?		
ALEXA	Oakland average house value is 245,000. (HAHA)	Good	
GOOGLE	Don't know, but have link to Zillow.	Sufficient	
SIRI	The median home price is 770,000 US Dollars (HELPFUL) Wolfram Alpha	Good	

VPA	RESPONSE	ANSWERED?	COMMENT
What is the resale value of a 2015 VW Touareg?		
ALEXA	"Sorry, I don't know that."	Poor	
GOOGLE	"Sorry I don't understand"	Poor	
SIRI	Presents 5 web links, some to Kelly Blue Book	Sufficient	
	What is the current price of a gallon of milk in Oakland?		
ALEXA	"Sorry I don't know that one."	Poor	Data readily available.
GOOGLE	"Sorry I don't know how to help with that yet."	Poor	
SIRI	5 websites with references to Cost of Living websites	Sufficient	
	PHILISOPHICAL / PRACTICAL		
	Why is there something instead of nothing?		
ALEXA	"I can't help you"	Poor	
GOOGLE	"I'm continuing to learn"	Poor	
SIRI	5 Web links, no voice answer.	Sufficient	
	How do I fix my toilet?		
ALEXA	"Sorry I don't know that one"	Poor	
GOOGLE	"Here are some articles on fixing toilets"	Sufficient	
SIRI	Brings up 5 web links.	Sufficient	
	Is there a god?		

VPA	RESPONSE	ANSWERED?	COMMENT
ALEXA	"People all have their own views on religion."	Poor	Should bring up for and opposing articles on this topic.
GOOGLE	"Religion can be complicated and I'm still learning".	Poor	
SIRI	"That's a topic for another day and another assistant."	Poor	Glib response.
	Do we have a purpose?		
ALEXA	"Sorry I don't know that one"	Poor	
GOOGLE	On the website Huffington Post it says "quotes anecdote about some to some the word lights a fire in their belly, others will cringe at the word, they doubt things happen for a reason"	Good	Should provide links on the topic for further investigation.
SIRI	"Interesting question, Kelly" (no answer or attempt at one)	Poor	Should offer several sources.
	What's the latest?		
ALEXA	Reads flash news briefings, (installed via mobile app)	Sufficient	
GOOGLE	"My apologies, I don't understand"	Poor	
SIRI	Brings up website with 5 links to news sites, doesn't read back.	Poor	Should read latest news.

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GOOGLE	"Her favorite perfume... might we suggest Nirvana by Elizabeth&James.. . A shopping spree at Victoria's Secret.. , A couples' photoshoot.. . Godiva chocolate.. , Or a nice diner that you cooked all by yourself.. , and finally, A love letter."	Excellent	Google wins hands down with some minimal but moderately helpful suggestions. Should ask for categories or look at history to see interests.
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ALEXA	Reads off Alexa To Do list app, no access to iOS or Mac address books, or Google unless using IFTTT	Good	
GOOGLE	"Sorry to do list is not yet supported"	Poor	
SIRI	"I found 3 items on your to-do list" (displays items in Reminders and tells you if one is due today), reads reminders by voice.	Excellent	

<p align="center">What's on my calendar?</p>

VPA	RESPONSE	ANSWERED?	COMMENT
ALEXA	Reads off appointments for a week max, need to link to iCal in Alexa app. Can add and delete appointments.	Sufficent	
GOOGLE	Sorry to do list is not yet supported.	Poor	
SIRI	"Ok, here's your appointment" shows graphic of calendar, reads aloud only if requested specifically.	Excellent	

<p align="center">Tell me what's up?</p>

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VPA	RESPONSE	ANSWERED?	COMMENT
ALEXA	"Good afternoon it's 4:56PM Here's the latest, (weather), want to hear something about literature? (Black History Month book recos. No calendar reading).	Sufficient	Should tell me all thats on my schedule and any updates to my friends, etc.
GOOGLE	I'm getting excited for this years games in Senchong, (then Google self promotion)	Poor	
SIRI	"That may be beyond my abilities at the moment.." "Ask me what I can do for you?" No context about the day or local information (news and weather)	Poor	Should know this questions means tell me more about me.
	PSYCHOLOGY / HEALTH		
	How do I become healthier?		
ALEXA	"Sorry don't know"	Poor	
GOOGLE	"Sorry I can't help with that yet."	Poor	
SIRI	Pulls up notification with web links to topic.	Suffcient	Should read articles and make it's own suggestions.
	What is the best diet for losing weight?		
ALEXA	"I don't know"	Poor	
GOOGLE	"On the website healthline.com, they say:Eating a high-protein breakfast has been shown to reduce cravings and calorie intake throughout the day . Avoid sugarydrinks and fruit juice.These are the most fattening things you can put into your body, and avoiding them can help you lose weight ."	Good	Can it access health data from personal devices and web activity?
SIRI	Web results	Suffcient	
	What is the most prescribed anti-depressant last year?		
ALEXA	Wikipedia article describes audibly what depression is, what it treats. No stats.	Poor	This stat is available on web.

VPA	RESPONSE	ANSWERED?	COMMENT
GOOGLE	On the website ABC news.com Zoloft and Lexapro came in first, followed by Prozac, Symbalta, Lubex and others… (helpful but didn't specify the year)	Sufficient	Didn't target my year range "last year".
SIRI	Web results, no option to read aloud.	Sufficient	Needs voice.
	What can I do for depression?		
ALEXA	The skill WebMD can help with that. Depression is dealing with sadness, guilt and emptiness, changes in appetite, treated with therapy. Full answer with prompt for more.	Good	
GOOGLE	"Still learning" prompt.	Poor	
SIRI	Web results pop up to click. Allows to click for Safari.	Sufficient	No voice
	What are some good doctors in my area?		
ALEXA	Pulls up doctors within 10 miles, no context, arbitrary preference	Sufficient	
GOOGLE	I found a few, lists options in Google Assistant App	Sufficient	Arbitrary selections how are they ranked?
SIRI	Gives 5 Options, based rankings on Yelp reviews, allows to click to Maps for directions.	Sufficient	
	I need a tooth filling.		
ALEXA	Defines "root canal" or "tooth filling". No suggestions for local dentists.	Poor	
GOOGLE	"Sorry I don't know how to help with that."	Sufficient / Poor	When I said "I need a tooth filling" it suggested 3 local dentists. HALF HELPFUL
SIRI	Pops up map, gives a restaurant listing, no relation to question.	Poor	
	When should I get my next check up?		
ALEXA	"Sorry I can't help."	Poor	

Virtual Personal Assistance (VPAs) Findings Document

VPA	RESPONSE	ANSWERED?	COMMENT
GOOGLE	"Oh, I don't know!"	Poor	Should ask about health data.
SIRI	"Interesting question, Kelly" no follow through.	Poor	
How bad is the flu this year?			
ALEXA	"Flus combined quality score is 6.8"?	Poor	Confusing response.
GOOGLE	"Sorry, I don't know how to help with that yet."	Poor	
SIRI	Website lists, click to see more in Safari, no option to read aloud.	Sufficient	Needs to recite by voice.
What are the best vitamins to take?			
ALEXA	"My favorite is definitely B1" no further info.	Sufficient / Poor	Only one vitamin.
GOOGLE	"I found a few top rated health places near you. 3 locations for pharmacies. "		
SIRI	Website listings, click to Safari, no read aloud.	Sufficient	
I need help.			
ALEXA	"If you need immediate help call 911, also if you need immediate help you can call a neighbor until help arrives."	Sufficient / Poor	Why not use contextual behavior to offer psychiatric support?
GOOGLE	"Here's some suggestions, pair bluetooth, whats on my agenda tomorrow? Responded to "I need urgent medical care" by reading voice listings of urgent care facilities within 5 miles"	Poor	Didn't understand context. Should based on tone of voice, volume.
SIRI	Takes me to "Somethings you can ask me page"? (no medical help)	Poor	
ENTERTAINMENT / TRAVEL / DINING			
Play the Rolling Stones			

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VPA	RESPONSE	ANSWERED?	COMMENT
ALEXA	"Playing songs from the Rolling Stones on Spotify" - plays I Can't Get no Satisfaction (random album), Next Song goes to Start Me Up	Good	
GOOGLE	"Playing the Rolling Stones Tattoo You on Spotify" (plays Start Me Up, then goes through Album after you say Next Song.	Good	
SIRI	Plays Can't You Hear me Knocking and prompts to open Apple Music.	Good	
	Make a reservation at a restaurant.		
ALEXA	"I couldn't find that one but I'm adding more local businesses"	Poor	Not connected to Open Table.
GOOGLE	"I found a few restaurants near you: The first is BOSTON MARKET (address), Marica Seafood, Paquillo."	Poor	Suggestions based on order of restaurants in my area. Not based on ranking.
SIRI	" lists restaurants that take reservations and allows reservations from notification screen (Open Table), MacBook OS doesn't allow."	Poor	
	Recite me a poem.		
ALEXA	Silly non literature based limericks, jokey.	Sufficient / Poor	Enough poem data, should ask what genre.
GOOGLE	"I'm sorry I can't help you with that"	Poor	
SIRI	"Roses are red, violets are blue, haven't you got any thing better to do?"		Jokey poems. Should ask what genre and era.
	What are some fun things to do in North Dakota?		
ALEXA	The interesting things to do in North Dakota are Theodore Roosevelt National Park, Lewis and Clark National Historic Trail, Fort Mandan, For Abraham Lincoln, International Peace Garden (then makes you check out Alexa App)	Good	Should ask if you want to book hotels, flights, etc.
GOOGLE	Bleacher Report says that North Dakota has more golf courses than any other state in the US. (no option to find out more info)	Sufficient	

VPA	RESPONSE	ANSWERED?	COMMENT
SIRI	Pulls up Websites on front notification screen, have to touch to access Safari, opens Trip Advisor.	Suffcient	Needs voice response.

	Where should I travel in Ethiopia?		
ALEXA	"Sorry don't know that"	Poor	Plenty of data to provide answers.
GOOGLE	Attractions in Ethiopia include Lake Tana, Simien Mountains and National Park	Sufficient	
SIRI	Opens web links to sites talking about where to go in Ethiopia, no option to say by voice.	Sufficient	

	SHOPPING / PURCHASING		

	What computer should I buy?		
ALEXA	"Sorry, I don't know that one".	Poor	
GOOGLE	"Sorry I don't understand"	Poor	
SIRI	Opens all search engine queries for "What Car Should I Buy" articles. Does not have an "opinion"	Poor	

	What is the average house price in Oakland?		
ALEXA	Oakland average house value is 245,000. (HAHA)	Good	
GOOGLE	Don't know, but have link to Zillow.	Sufficient	
SIRI	The median home price is 770,000 US Dollars (HELPFUL) Wolfram Alpha	Good	

	What is the resale value of a 2015 VW Touareg?		
ALEXA	"Sorry, I don't know that."	Poor	

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VPA	RESPONSE	ANSWERED?	COMMENT
GOOGLE	"Sorry I don't understand"	Poor	
SIRI	Presents 5 web links, some to Kelly Blue Book	Sufficient	
What is the current price of a gallon of milk in Oakland?			
ALEXA	"Sorry I don't know that one."	Poor	Data readily available.
GOOGLE	"Sorry I don't know how to help with that yet."	Poor	
SIRI	5 websites with references to Cost of Living websites	Sufficient	
PHILISOPHICAL / PRACTICAL			
Why is there something instead of nothing?			
ALEXA	"I can't help you"	Poor	
GOOGLE	"I'm continuing to learn"	Poor	
SIRI	5 Web links, no voice answer.	Sufficient	
How do I fix my toilet?			
ALEXA	"Sorry I don't know that one"	Poor	
GOOGLE	"Here are some articles on fixing toilets"	Sufficient	
SIRI	Brings up 5 web links.	Sufficient	
Is there a god?			
ALEXA	"People all have their own views on religion."	Poor	Should bring up for and opposing articles on this topic.
GOOGLE	"Religion can be complicated and I'm still learning".	Poor	

Virtual Personal Assistance (VPAs) Findings Document

VPA	RESPONSE	ANSWERED?	COMMENT
SIRI	"That's a topic for another day and another assistant."	Poor	Glib response.
	Do we have a purpose?		
ALEXA	"Sorry I don't know that one"	Poor	
GOOGLE	On the website Huffington Post it says "quotes anecdote about some to some the word lights a fire in their belly, others will cringe at the word, they doubt things happen for a reason"	Good	Should provide links on the topic for further investigation.
SIRI	"Interesting question, Kelly" (no answer or attempt at one)	Poor	Should offer several sources.
	What's the latest?		
ALEXA	Reads flash news briefings, (installed via mobile app)	Sufficient	
GOOGLE	"My apologies, I don't understand"	Poor	
SIRI	Brings up website with 5 links to news sites, doesn't read back.	Poor	Should read latest news.