

# Siri's First Game: A Proposal

## LANDSCAPE

For many people, Siri is still synonymous with “Virtual Assistant” (VA). However, her status as the top VA has been challenged in recent years, especially by Amazon’s Alexa and Google’s Assistant. Between May 2016 and May 2017, right after the launch of these VAs, Siri lost 7.3 million monthly users<sup>1</sup>. As the landscape changes, Siri needs to adapt to remain a cutting-edge assistant. A major area in which she has potential to expand is in the realm of multi-turn interactions. A study from 2017 found that 86% of requests to voice assistants, including Siri, Alexa, and Google Assistant, were single-step and nearly all of the rest were basic multistep tasks<sup>2</sup>. Users have historically been reluctant to use VAs for complex tasks, relegating them to a means of accomplishing a single task such as turning on a flashlight or answering a factual question. With the introduction of Alexa Skills and Google Actions, this mold is being broken. The popularity of these tools proves consumers’ willingness to accept more complex behavior from their VAs. An important way to build users’ trust in their VA is to engage in interactions in a more human fashion. The more a user engages with Siri as a peer, the more they will be likely to interact with her. This involves going beyond the simple silly questions that remain one of the top uses of Siri.

## BACKGROUND

I tested Siri on Alexa abilities as listed on their website to see how the two VAs compared<sup>3</sup>. Following is a summary of results:

Key:

Not supported on Siri	Minimally, sometimes, or unreliably supported on Siri	Fully supported on Siri
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Category	Examples
Feature Discovery	What can you do?
Volume Control	Turn up the volume.
Wakeword, Profiles, User Accounts	Can I change your name? Can you speak French?
Bluetooth & Wifi	Connect to Bluetooth.
Books	Can you read me a book?
Communication	Call Mom. Send Jenny a text.
Donations	Can I make a donation?
Fun with Alexa	Sing Jingle Bells! What’s your favorite bird? Tell me a story! Give me a fun fact.
Games Assistance	Roll a 20-sided die. Flip a coin.
Game Skills	Start the Music Quiz.

Photos	Show my photos.
Live Radio	Play the radio.
Privacy Features & Controls	Are you always listening? Delete what I just said.
News & Information	Give me an animal fact. Who wrote “The Great Gatsby”?
Movies & TV	What movies are playing nearby? Who stars in <i>Interstellar</i> ?
Spelling	How do you spell ‘accommodate’?
Sports	What basketball games are on today? What’s the score of the Red Sox game?
Traffic	What’s traffic like right now?
Translations	How do you say “I love you” in French?
Trending news & pop culture	What’s trending?
Weather	What’s the weather in London?
Wikipedia	Wikipedia “the West Wing”.
Notifications	What are my notifications?
Podcasts	Do you have any podcasts?
Productivity	What’s on my calendar? Add “eggs” to my shopping list. Set a timer for 20 minutes.
Skills	Open “Daily Beatles Facts”
Family & Kids	Ask Sesame Street to call Elmo! Let’s brush our teeth!

Evidently, Siri’s functionality is fairly comprehensive for basic functions, but lacking in more complex functions. The only relatively common multi-step features are related to giving directions or purchasing things like movie tickets.

## ISSUES

- Users’ engagement with Siri is limited almost exclusively to single-command interactions.
- Users have few ways to engage with Siri as a “friend” beyond static answers to select silly questions.
- Siri does not offer any games.

## PROPOSAL

There is no one proposal that will solve all of these issues in one fell swoop. Creating a game fills a gap in which other VAs currently have an advantage over Siri. It is important to devise a game which involves engaging extensively with Siri as an individual. A game is also a good opportunity to begin acclimating users to a multi-turn conversation with Siri, moving beyond single commands. This will be a starting point for future work with Siri, both in the space of games and in the realm of complex interactions, and it should put in place useful frameworks and provide preliminary data for both areas.

The proposed game to implement is a 20-questions animal game. In this game, the user thinks of an animal which Siri attempts to guess through a series of 20 questions.

There are several reasons why this game is ideal. This is a game which inherently involves turn-taking, introducing a mental framework for multi-turn interaction with Siri. In this game, users engage in competition with Siri, making her feel like a peer. Indeed, in something of a role reversal, Siri is now the one asking questions. Limiting the scope to animals makes it more feasible for an initial launch. The category of animals is familiar to all, including children who are more likely to play games and will become the consumers of tomorrow.

## SAMPLE USER STORIES

- As a child playing with my parents' phone, I want to play a game.
- As a regular Apple user stuck in traffic, I want Siri to entertain me.
- As someone who has just purchased their first Apple product, I want to explore Siri's fun features.

## EXAMPLE

User: Hey Siri, let's play a game!

Siri: Sure. Do you want to play twenty questions?

User: Yes.

Siri: Okay. Think of an animal, and I will try to guess. Ready?

User: I'm ready.

Siri: Is it a bird?

User: No.

Siri: Is it a mammal?

User: Yes!

Siri: Does it live in Africa?

User: No.

Siri: Is it a type of bear?

User: Yes.

Siri: Does it live in Asia?

User: Yes!

Siri: Is it a panda?

User: You got it!

## OBJECTIVES

Metric	Metric Description	Objective
<b>Unique Users</b>	How many different people have started a game?	Aim to have <b>3 million</b> unique users one month out from launch.
<b>Average games per user</b>	How many games does the average user play per month? Total?	Aim to have an average of <b>2.5</b> games per user one month out from launch.

<b>Completions</b>	How many times has a game been completed?	Aim to have <b>7.5 million</b> completed games one month out from launch.
<b>Multi-turn interactions</b>	What percentage of Siri interactions have been multi-turn?	Aim to have <b>15%</b> one month out from launch.
<b>Brand Image</b>	How does the image of Siri change as a result of this game?	Exact metric TBD. Aim to make Siri more personable.

### Objective Explanations:

**Unique Users:** I used two strategies to ballpark this figure: First, the Jeopardy Alexa Skill has 53,095 reviews since 2016<sup>4</sup>. Assuming that 5% of users leave a review and ignoring duplicate reviewers, that suggests around 1 million users. This provides a good ballpark even though Siri is present on more devices because this skill has been out for many years. Second, based on the statistic that Siri had 375 million MAU as of 2018<sup>5</sup> and that only 2% of voice assistant requests were game-related as of 2017<sup>6</sup>, a reasonable target for number of unique users is 7 million users. 3 million is a number between these two estimates.

**Average games per user:** Chances are, many users will start games without completing them. Once a user completes at least one game, they are more likely to play more games.

**Completions:** This number was estimated from the above two metrics.

**Multi-turn interactions:** This is an important metric to begin tracking in order to gauge progress on larger goals. This initial goal assumes the single feature will not make a large dent in the 14% multi-step statistic from the 2017 study<sup>7</sup>. This game is meant as a first step, and tracking this metric now will give more data as further features are added that may continue to move the needle.

**Brand Image:** Aligning with larger strategic goals, this game should make users perceive Siri as more friendly and humanlike. Reviews or surveys may help gauge progress on this objective.

## SCOPE

- User Research:
  - Conduct small focus groups to understand when users might want to play games, whether the 20 questions game and animal category is desirable, and what a natural conversational structure is for this game.
  - User research can continue through the design phase with mockups and prototypes.
- Design:
  - This project is design-intensive because it involves creating a conversational voice interface as well as a visual UI to be displayed on an iPhone, Apple Watch, or other device. It should be playable entirely nonvisually to meet the needs of hands-free users.
- Development:
  - A single team will bring the design to life, with designated engineers working on the backend conversational path or the frontend display.
- Testing:

- While the developers should be continuously testing throughout development, at least one tester external to the team should be given access and raise bugs as they are found.
- Marketing:
  - Add “play a game” to Siri’s answer to queries about what she can do.
  - Update Siri portion of Apple’s website to include game capability.
  - Suggest playing a game in response to boredom.
- Launch:
  - Begin with a soft launch to ensure there are no major bugs.
  - Monitor carefully after a full launch.
- Evaluation:
  - The KPIs should be monitored continuously after launch. At the one-month mark, assess performance against the objectives set.

## TIMETABLE

While of course there will be various iterations of this feature, these are estimates as to how long each phase should take.

- User Research: 4 weeks
- Design: 8 weeks
- Development and Testing: 10 weeks
- Launch: 1 week
- Post-Launch: 1 week

## RISKS

If this game expands beyond a pre-programmed game and begins incorporating users’ responses based on machine learning, privacy issues may arise. Though the seriousness of sharing information about animals is low, this is a risk of opening Pandora’s Box to using user data to collectively enhance Siri’s performance. Indeed, moving further into this space of personalizing Siri and making her more human may continue to involve privacy risks. It is important to mitigate concerns with clear data security protocols.

## APPENDIX

1. Fortune: <https://fortune.com/2017/07/11/apple-siri-usage/>
2. Nielson Norman Group Study: <https://www.nngroup.com/articles/intelligent-assistants-poor-usability-high-adoption/>
3. Amazon Things to Ask Alexa: <https://www.amazon.com/b?ie=UTF8&node=17934693011>
4. Amazon Jeopardy Skill: <https://www.amazon.com/Sony-Pictures-Television-Jeopardy/dp/B019GoM2WS>
5. Voicebot: <https://voicebot.ai/2018/11/01/apple-siri-continues-to-lead-in-voice-assistant-usage-on-smartphones/>
6. Nielson Norman Group Study
7. Nielson Norman Group Study