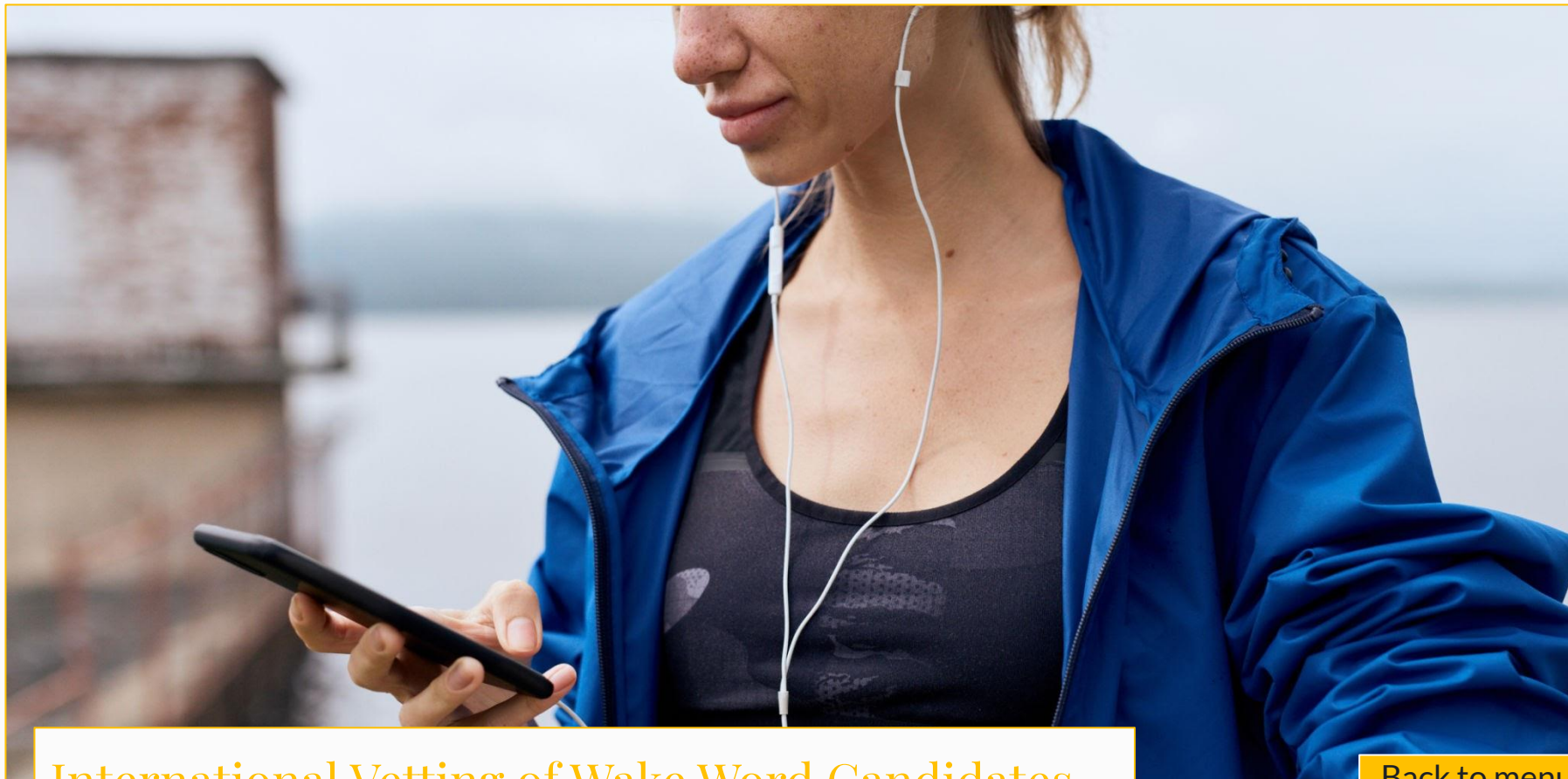




International Vetting of Wake Word Candidates

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International Vetting of Wake Word Candidates

The client

DeltaCo: Cross-functional product, engineering and UX team of a global Fortune 100 technology and social media company.

01

Context

DeltaCo is developing a new digital assistant for their connected device ecosystem. For users to engage this new assistant with only their voice, the client needs a new “wake word” (think: “Hey, Siri!”, “Alexa”)

02

Issue

There are a lot of moving pieces to naming a wake word:

Engineering needs something (a) easy for an algorithm to recognize but (b) distinct from everyday conversation (to prevent “false wakes”)

03

The ask

Product and marketing want something unique, memorable and gender neutral

UX wants something easy and joyful to pronounce across the globe

1. Quantitatively evaluate wake word candidates in the US and 5 international markets
2. Linguistically evaluate wake word candidates in 19 languages



The solution

Instrument: Getting the right wake word is a tall order, with potentially hundreds of millions of people using the word to activate their devices globally.

To understand “whether” a candidate succeeds, we deployed a quantitative survey. We focused respondents on a singular name per survey to extract detailed pros and cons of each name individually and to prevent unknowable methods of comparison between names.

To understand “why” a candidate succeeds, we developed a qualitative discussion guide for in-depth interviews with our team of in-country linguists/brand experts.

Quant: A online 20-minute monadic survey of 14,000+ respondents (28 candidate names X 100 participants per name X 5 international markets)

Qual: 19 In-depth interviews with our in-country linguists

Timeline: 4 weeks per round

My role:

1. Client communication (w/ team)
2. Quant survey development, fielding and data analysis
3. Qual discussion guide development, IDIs, data analysis
4. Integration of Qual & Quant results, story-development & visualization (w/ team)

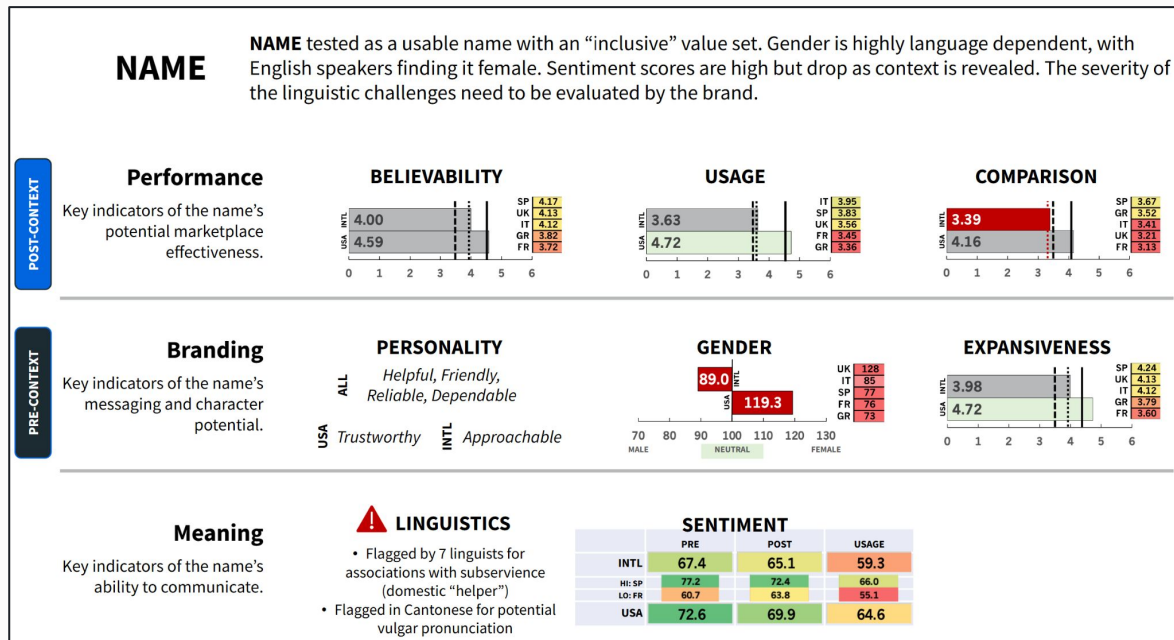
Reporting approach

“Scan or Study”

Summary slides must give the client team the option to scan for quick understanding or study to answer deeper questions.

A consistent layout with green/ grey/ red color coding and purposeful icons allow busy executive to compare between candidates at a glance.

The following 11 slides showcase results for one wake word candidate, codenamed “NAME”



Project Objective

Leverage Lexicon's proprietary consumer research and WorldBrand® linguistic network to evaluate five potential Wake Words.

Project Criteria

Value Proposition

Does the Wake Word convey, “*Seamless connection to each other and the world?*”

Signal [client]

The Wake Word needs to work within Meta and Meta's Metaverse.

Be Natural

Do respondents find saying and using the Wake Word to be comfortable & easy?

Gender Neutral

The Wake Word should avoid signaling an overly male or female persona.

Convey Values

The Wake Word should be:

- Familiar
- Approachable
- Social
- Inclusive
- Imaginative
- Creative

Tested by

- Believability
- Expansiveness
- Sentiment

- Believability
- Comparison
- Sentiment

- Usage
- Sentiment

- Gender
- Sentiment

- Personality
- Sentiment

Collected data reports against this framework

All data in Tier One is Post-Context; All data in Tier Two is Pre-Context

POST-CONTEXT

1) Performance

Key indicators of the name's marketplace effectiveness potential.

BELIEVABILITY

How believable is the name to the Value Proposition?

USAGE

How comfortable is the name to say and use?

COMPARISON

Measure the appeal of the name vs. competitive offerings like Siri & Alexa.

PRE-CONTEXT

2) Branding

Key indicators of the name's messaging and character potential.

PERSONALITY

The intrinsic tone & vibe struck by the name.

GENDER*

Do people associate the name with a gender?

EXPANSIVENESS

The favorability of the name prior to any context.
(Deemed of less importance for this descriptive name set)

3) Meaning

Key indicators of the name's ability to communicate.

LINGUISTICS

The name's ability to reach across 19 languages.

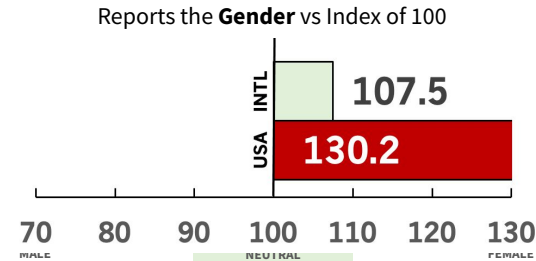
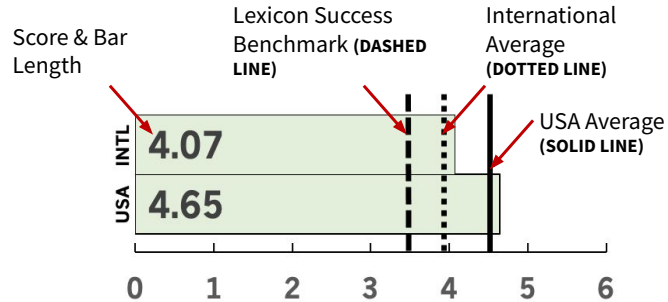
SENTIMENT

The tone and direction of the open-end responses, both pre & post context.

* **Gender** is comprised of 2 questions; one post & one pre. Average is shown, but all names in all markets moved slightly more feminine with context, likely due to today's marketplace of assistants (Siri, Alexa, etc.).

Important note on data reporting

Instructions for evaluating data on the coming slides.



Bar Colors



Specific Country Findings

IT	4.17	HIGH
SP	3.80	
FR	3.76	
UK	3.44	
GR	2.91	LOW

Country Abbreviations

FR	FRANCE
GR	GERMANY
IT	ITALY
SP	SPAIN
UK	UNITED KINGDOM

Reports the **Sentiment**, color coded to the respective International or USA average

	PRE	POST	USAGE
INTL	66.1	65.4	57.0
USA	70.4	69.8	69.0

(USA average is 66.4 out of 100 & International is 63.6; indicating the point when the respective numbers begin turning green.)

All data: N≈120/name/country

NAME: 2nd choice for an *easy, approachable, friendly* word that fosters social connections.

NAME evokes traits like *helpful, professional* and *reliable*; all words that convey [client] values. It delivers the project Value Proposition and performs at average in all markets for its overall contextual believability.

Respondents found it to be a comfortable, easy to say word, especially in the USA. In English-speaking countries, **NAME** reported as decidedly feminine but masculine elsewhere.

Linguistically, **NAME** suffers in Asian markets for being seen as derogatory and subservient; also mentioned in UK, FR & GR open-ends. In Cantonese it could be considered vulgar.

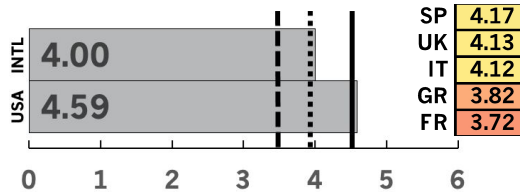
“**NAME** would bring people together rather than dividing them.”



NAME: Performance

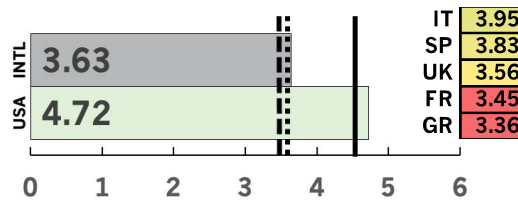
Key indicators of the name's potential marketplace effectiveness.

BELIEVABILITY



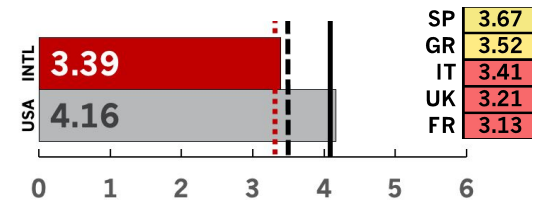
NAME performed at average in the fit of the name to the actual context.

USAGE



NAME led the US field in the likelihood to use and ease of pronunciation with average International results.

COMPARISON



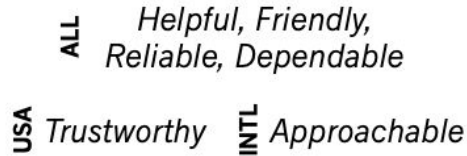
NAME performed at average in the competitive context of other digital assistants.

PERFORMANCE MEASURES ARE POST-CONTEXT

NAME: Branding

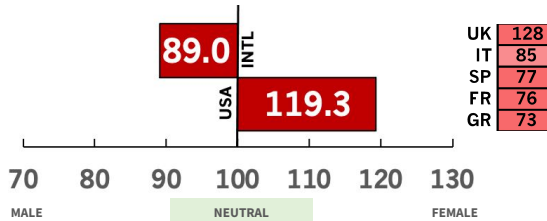
Key indicators of the name's messaging and character potential.

PERSONALITY



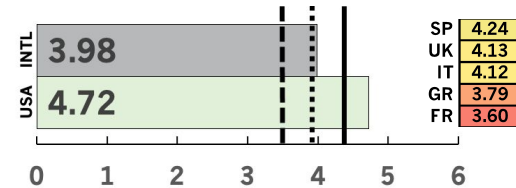
NAME's personality traits feel like a good fit with Meta values.

GENDER



NAME reports as a more feminine name in English-speaking markets and just-past Neutral for the other countries.

EXPANSIVENESS



Pre-context, respondents found the idea of the word **NAME** favorable across all markets.

BRANDING MEASURES ARE PRE-CONTEXT

NAME: Meaning

Key indicators of the name's ability to communicate.

LINGUISTICS

DETAIL

NAME surfaces Linguistic flags to evaluate:

- 1) Potential subservience or impoliteness
 - Flagged by 7 of 19 Linguists, in primarily Asian languages, for this association.
 - Like **NAME 2**, it was detected in UK, FR & GR verbatims
- 2) The Cantonese linguist flagged it for a pronunciation overlap with a vulgarity.

SENTIMENT

	PRE	POST	USAGE	TOTAL
INTL	67.4	65.1	59.3	64.9
USA	72.6	69.9	64.6	69.9
SPAIN	77.2	72.4	66.0	73.1
ITALY	67.2	64.6	64.9	65.7
GERMANY	66.0	63.8	61.3	64.2
UK	66.0	61.3	50.0	60.9
FRANCE	60.7	63.8	55.1	60.8

NAME's open-end comment sentiment was very strong, but dipped a bit as context was revealed.

NAME

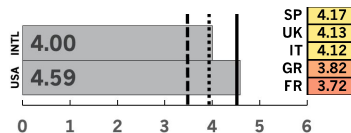
NAME tested as a usable name with an “inclusive” value set. Gender is highly language dependent, with English speakers finding it female. Sentiment scores are high but drop as context is revealed. The severity of the linguistic challenges requires further investigation.

POST-CONTEXT

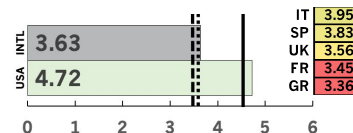
Performance

Key indicators of the name's potential marketplace effectiveness.

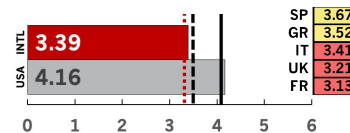
BELIEVABILITY



USAGE



COMPARISON

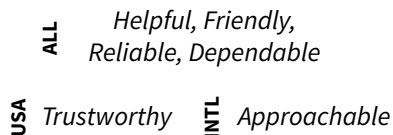


PRE-CONTEXT

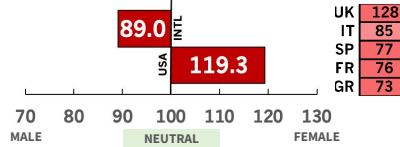
Branding

Key indicators of the name's messaging and character potential.

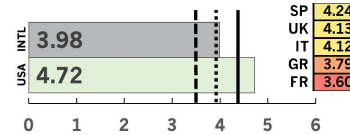
PERSONALITY



GENDER



EXPANSIVENESS



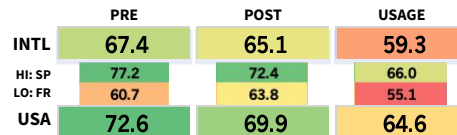
Meaning

Key indicators of the name's ability to communicate.

! LINGUISTICS

- Flagged by 7 linguists for associations with subservience (domestic “helper”)
- Flagged in Cantonese for potential vulgar pronunciation

SENTIMENT



EXTENSIVE LANGUAGE SCREENING



POTENTIALLY SIGNIFICANT ISSUES: **NAME**

“Hey, slut!”

The **Cantonese** pronunciation of “**NAME**” is identical to an existing word: **NAME** /hau21 p^hɔ21/ “flirtatious woman; slut.” It would be uncomfortable or even vulgar to call on a digital assistant using this word.

In-home caregiver

The English word “**NAME**” has been borrowed into **Japanese** (**NAME** *herupā*) with a narrower meaning: “home caregiver for the elderly or disabled.” While not a negative word, this specific meaning will be prominent for Japanese speakers in the context of addressing a “**NAME**” and may be uncomfortable or inappropriate to use as a wake word.

Domestic workers

In multiple languages, the English word “**NAME**” is associated with (low-paid/immigrant) domestic workers, to greater or lesser degrees. (Detail next slide.)

DOMESTIC HELPER: **Global Context**

Hong Kong, Singapore, and the Philippines seem to be the primary drivers of understanding “NAME” to refer to a low-paid immigrant housekeeper.

In Hong Kong and Singapore (where many domestic workers come from the Philippines), “a domestic” is the primary term for this category, and “NAME” is only used in this context. The term “NAME” carries a negative, low-status connotation:

“We are not slaves, we are workers,” one Filipina said [about “NAME”], echoing a rally cry used at local protest marches. Another said that the term “NAME” was “degrading.”

.... “NAME is more vulgar to pronounce,” said a woman in Central [Hong Kong]. “It has a low profile....”

– Hong Kong Free Press, “[redacted: news article]”, July 24, 2015

In any country that employs immigrant (especially Filipino/a) domestic workers, this connotation is possible. Further research is recommended to clarify whether this association poses any risk to the brand and what mitigation strategies are available.