

# Redacted

On Dec 13, 2018, at 8:51 AM, Adrian Perica [Redacted@apple.com](#) wrote:

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It's within this sub-segment, however, that I'm testing my logic since the FY19 planning and this MSFT diligence has raised for me the relative resource needs for this set of functionality.

I guess what I'm saying is that I'm getting more attracted to your idea of collaborating on a knowledge base with MSFT...or even just outsourcing those queries to MSFT. For instance, in a perfect world, what are the pro's and con's of just moving a large majority of our Search/Knowledge OpEx spend to MSFT to let them surface Australian rugby scores or Indian cricket scores for us? Siri would retain traffic cop functionality that chooses whether its "a search we should return in our UI and without ads". Thus, send it to MSFT to deliver the answer. Alternatively, it's a "search where we users have commercial intent or appears very long tail". Thus, send to Google. MSFT can carry the expense burden but also get the queries to improve their service. We build them up, create incremental negotiating leverage to keep the take rate high from Google, and further our optionality to replace Google down the line.

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On Dec 12, 2018, at 10:39 PM, John Giannandrea [Redacted@apple.com](#)> wrote:

All good questions.

Siri doesn't compete directly against Google search. It competes against Alexa and Google Assistant. The query mix is very different. It's more "sent a message to Adrian" than it is "how do I prune an Apple tree". There is overlap and Google's strength in answering questions puts us at a disadvantage.

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I don't think Bing can do better than Google search for the search use case unless it spends more on it or has a better mousetrap. Not having mobile queries at scale is a huge liability for them since the most important search signal is engagement. But it is not impossible. As we noted yesterday the reason a better search engine has not appeared is that it's not a VC fundable proposition even though it's a lucrative business.

Can I imagine that Apple can build a search engine to compete. Yes but it's probably not the best way to differentiate our products.

-jg

On Dec 12, 2018, at 5:36 AM, Adrian Perica [Redacted@apple.com](#)> wrote:

John,

I was reflecting on yesterday's discussions and got myself tripped up trying to think through the below logic. If you have moment to ponder it, here goes:

*If folks believe that Bing can't compete with Google since Bing has <sup>Redacted</sup> engineers vs. Google's <sup>Redacted</sup> engineers, then how does Siri compete with Google? I presume the answer is,*

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*But if the above statement is true for Siri, then wouldn't Bing's path to success just be a parallel effort of many concatenated Siri efforts against Google? That is, many small teams working on specific parts of the query head, torso and tail clickstream to directly compete against Google? Bing would need to invest in a large index, but it seems that Google's path to success has also been by assigning bunches of engineers to whittle away the clickstream inefficiencies. Sort of software engineering "by the yard" as you've described before.*

I'm trying to push on how much data we have that objectively shows Bing is worse in areas where they've made an effort against Google, vs. the perception that Bing must be worse because Google is unassailable in this category.

Thanks,

| Adrian