

EXHIBIT 164

UNREDACTED VERSION OF DOCUMENT SOUGHT TO BE LODGED UNDER SEAL

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**From:** Tom Stocky </O=THEFACEBOOK/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=TOM STOCKY>  
**Sent:** Wednesday, July 24, 2013 4:33 PM  
**To:** Mike Vernal  
**Cc:** Greg Badros; Lars Rasmussen  
**Subject:** Re: All-Hands: "Understand Everything" section

The new script is simpler, though it's also a bit less concrete about what we're doing in H2 — that may be totally fine, just mentioning it in case that wasn't intentional.

One nit:

"It took a little bit of time, but Graph Search is now rolled-out to 75% of EN\_US, and will be out to 100% of EN\_US shortly."  
--> We're basically at 100% now. We have a 2% hold-out, but other than that it's fully launched to en-us. Also, while it was slower than we planned, it wasn't \*that\* slow of a roll-out. I believe Lightstand, for example, which launched at the same time is still not rolled out to 100%.

And to respond to your comments:

"This is obviously your call, but I worry about investing a lot of time in making photo search better. I think we need to be figuring out entity search (people, places, and media) because I think this pattern is where the long-term strategic value of Graph Search lies."

--> We could be wrong, but our sense is that post search is going to be pretty huge. Searching entities are definitely of strategic value to FB, but in terms of what people want and come to FB for, it's the content: photos and posts. Right now we're explicitly focusing on what people are already searching for, as opposed to trying to create new search behaviors. Depending on where we are at the H2 it may make sense to start branching into new search behaviors.

"I still think we should get media (music, tv, movies, books) into the Graph Search index for H2, and the platform team is signed-up to help with that."

--> They're already in the index — our initial launch included support for all of those things:

<https://www.facebook.com/search/me/friends/pages-liked/musician/pages/intersect>

<https://www.facebook.com/search/me/friends/pages-liked/movie/pages/intersect>

<https://www.facebook.com/search/me/friends/pages-liked/tv-show/pages/intersect>

<https://www.facebook.com/search/me/friends/pages-liked/book/pages/intersect>

We're just not planning to focus on improving those experiences in H2.

"I dropped Hunch from the all-hands, but just wanted to say that I think Hunch and keyword search are really solving the same problem."

--> I disagree. Keyword is about reducing friction to searching when people have an intent in mind, while Hunch is about pushing discovery even when the user has no specific intent. They're solving similar problems, but I think they're pretty different and lead to working on very different things.

Hope this helps,  
Tom

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**From:** Mike Vernal <vernal@fb.com>  
**Date:** Wednesday, July 24, 2013 12:39 PM  
**To:** Tom Stocky <tstocky@fb.com>

**Cc:** Greg Badros <[badros@fb.com](mailto:badros@fb.com)>, Lars Rasmussen <[lr@fb.com](mailto:lr@fb.com)>

**Subject:** Re: All-Hands: "Understand Everything" section

Ok - thanks for all this feedback. I completely rewrote the script (from scratch, attached) - it was too long and a little convoluted. I went for something much shorter and to the point. I think it accurately reflects below, but you should correct me if not.

A couple of discussion points on below, though:

- This is obviously your call, but I worry about investing a lot of time in making photo search better. I think we need to be figuring out entity search (people, places, and media) because I think this pattern is where the long-term strategic value of Graph Search lies. We can obviously do a great job with photo search (and we have), but I worry it's so different than everything else that getting good at that doesn't really make the whole system better.

- As a minor clarification on the above - in the H1/H2 review, I agreed with the feedback that we should make people + place search really, really good before we build custom experiences for media. Just to clarify my comments - I still think we should get media (music, tv, movies, books) into the Graph Search index for H2, and the platform team is signed-up to help with that. Getting those data sets into the graph is a necessary feature for Hunch. I just wouldn't spend time building a custom search experience for that data until we do an amazing job with people + place search.

- I dropped Hunch from the all-hands, but just wanted to say that I think Hunch and keyword search are really solving the same problem. There's so much power -- beautiful power -- in Graph Search, but it's just not that accessible yet. I think both products are trying to make that power more accessible. Keyword searching simplifies the language you have to use to do a search. I think Graph Search teaches people about the search you can do, and shows you all the queries you might want right now, at once. They're obviously different solutions, but I do think they're addressing the same potential problem.

-mike

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**From:** Tom Stocky <[tstocky@fb.com](mailto:tstocky@fb.com)>

**Date:** Saturday, July 20, 2013 8:51 AM

**To:** k a <[vernal@fb.com](mailto:vernal@fb.com)>

**Cc:** Greg Badros <[badros@fb.com](mailto:badros@fb.com)>, Lars Rasmussen <[lr@fb.com](mailto:lr@fb.com)>

**Subject:** Re: All-Hands: "Understand Everything" section

This narrative generally makes sense, but I have suggested changes for the entities and search parts:

- I'd frame the things Graph Search needs to focus on a bit differently. Right now you have (1) continue rolling out (iOS, i18n, Android) and (2) make more approachable (Hunch). I'd change that to:
  1. continue rolling out (iOS, post search, Android)
  2. improve the product (focus on what people are already searching for on FB: predominantly people search)
  3. make it more approachable (keyword search)
- To give a bit more detail on those 3:
  1. We're not focusing on i18n yet. The big parts to finish rolling this out are giving mobile users a way to search and giving them a way to search over everything (posts is the big piece missing right now). Then we'll make sure the product is really good, then we'll start i18n.
  2. Our major focus this half will be to improve the experience for things people already search for on FB. This is people search predominantly, though we'll do work on photos and places, too. Our strategy will be to make these things really great before trying to move users to new search behavior.
  3. Our answer to making Graph Search more approachable is keyword search, not Hunch. Happy to provide whatever info you need here, but the problem with our highly-specific grammar is that it requires too much cognitive load up front to come up with a very specific intent. Keyword search will allow broader, less-specific queries and give users a way to define a more specific intent on the results page.
    - Hunch is more about creating a better null state / on-ramps to queries users may not think of on their own. To be honest, I don't think we should mention it at an all-hands yet.

- Fix the Graph poster: You may want to call out the Entities team and/or Philip Bohannon who leads it by name here. That team has done a ton of great work and often gets lost in the recognition/praise that's given to the product teams that benefit from their work. (E.g., profile inferences, places quality/dedup work, etc.) They'd really appreciate the shout-out.
  - Also, calling the current state of dedupe a mess is probably fine, but you should at least acknowledge the progress the Entities team has already made there. It's less of a mess now than it was a year ago, way less than 2 years ago.
  - If you want graphs here that show progress and the current gap, I'm sure we can pull those together.
  - FYI, this phrase in particular will rub a bunch of people the wrong way: "The various entities teams across the company". Yes, the OG folks in London did some work on entities, but they built off the infrastructure, expertise, and multiple years of work by the Entities team. We've recently been considering org changes that would move some of the Entities team to Location, but that hasn't happened yet and to date all the places quality/dedupe/etc work has been done by Philip's Entities team.

Hope this helps,  
Tom

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**From:** Mike Vernal <vernal@fb.com>

**Date:** Friday, July 19, 2013 12:21 PM

**To:** Douglas Purdy <dmp@fb.com>, Avichal Garg <avichal@fb.com>, John Ciancutti <jciancutti@fb.com>, Peter Deng <pdeng@fb.com>, Greg Badros <badros@fb.com>, Tom Stocky <tstocky@fb.com>, Lars Rasmussen <lr@fb.com>, Sam Lessin <sl@fb.com>

**Subject:** All-Hands: "Understand Everything" section

Hey everyone -

FYI, the company all-hands is next week. Mark is going to frame-up our strategy for the second half around four themes (what he's calling "the formula"):

- Increase the # of people on Facebook (growth, Javi)
- Increase the time they spend on Facebook (engagement, Cox)
- Increase the amount of utility they get from that experience (understanding, Vernal)
- Increase our efficiency at monetization those experiences (ads, Boz - efficiency, Jay)

My section is the most nebulous - it's intended to cover search, nearby, entities, identity, and open graph.

The first draft of my script is below (wrote it last night / this morning). I'm representing a lot of areas that I don't directly work on, so please give me feedback both on the overall content, but also on how I'm representing your areas.

Thanks - appreciate any and all feedback, and please give me the benefit of the doubt if I got some of the details wrong about your particular area (and please help me correct them!).

-mike

// Cox finishing up ...

[ Formula Slide, Highlighting "Understand Everything" ]

The third variable in "The Formula" is "utility-per-time spent."

In other words, "how much utility do you get out of your Facebook experience?"

And how do we make it more useful?

[ News Feed Slide ]

Today, people come to Facebook to see what their friends are up to.

Through News Feed, they discover tons of awesome stuff:

[Click] - Wildlife photos (FB Fox photo)

[Click] - Awesome restaurants your friends are visiting (La Ciccia, in Noe Valley)

[Click] - That all of your friends are watching Game of Thrones (and something insane happens in episode 9)

[Click] - That gay pride is this weekend, and everyone's going to be there

But people are discovering this incidentally.

When people actually have questions about this stuff -- when they're looking for a restaurant, or what to do this weekend, or what to read next - they're not using Facebook.

And that's crazy. All this knowledge exists on Facebook. We should have the best answers to these questions.

But they're not using us today. They're not using us yet.

[ Blank Slide ]

Let me stop myself for a second.

You might be asking yourselves -- haven't we been talking about this vision forever?

Didn't we launch Open Graph two years ago? Nearby a year ago? Graph Search six months ago?

Are those products working yet? If not, why are we continuing with the same strategy?

First, you're right. The basic strategy hasn't changed.

[ TBD Slide ]

The basic strategy is to:

1. Give people the tools for sharing their experiences with their friends and the world, and
2. Build tools that help you search over and discover things from that knowledge. From that repository of human experience.

There are some things we've done well. [click] Minutiae is awesome - people seem to really like it.

There are some things we've totally screwed-up -- [click] social reading was a disaster.

But while we might mistakes in the tactics, that doesn't mean that the strategy is wrong -- that the vision is wrong.

I really believe in this vision. I believe that we are building a system that lets you share your human experience, and that helps you make your experience -- your time on this earth -- better, through the experiences of others. And I think that's a system worth building.

And I really think we're close -- with Graph Search rolling out, we have all the key pieces in place.

We just need to take all these pieces and make them work really well, end-to-end.

[ Entities, Connections, Discovery ]

So how are we going to do it?

There are three problems we need to focus on.

We need to have great representations of all the entities in the world.

We need to optimize our tools for connecting with and sharing your experiences with those entities.

We need to finish launching the discovery tools we have, and then make them do a few things really well.

[ Entities: Fix The Graph poster ]

We actually have most of the entities in the world on Facebook already. The problem is we have hundreds of copies of each. It's a mess. Hanging in one of the bathrooms in MPK is this poster. It speaks for itself.

We need to clean all this up.

This is a hard problem, but it's also solvable. We have the technology. We just need to focus on a few specific verticals and start making them better day-over-day, week-over-week, and month-over-month. We did this in the last half by focusing on music, movies, and books, and we're now pretty good at them. We just need to keep dividing this problem into solvable chunks, solving them, and then moving on to the next chunk. The various entities teams across the company are focused on this for H2.

[ Connections: Minutiae, Ratings + Reviews unit ]

Once we have all these entities, we need to understand how people are connected to them.

When you're checking-in to a movie theatre, we should ask you what movie you're watching. And then a day or two later, we should ask you what you thought of it.

Same thing for check-ins - if you checked-in at a restaurant, we should ask you a few days later what you thought.

On Platform, one of our main goals is to get another 85M people to fill out their movie, music, and book tastes on their profile. For Nearby, one of their main goals is to get another 27M high-quality reviews into the system. Again, we have all the right tools in place. We just need to make them really effective.

[ Discovery: Graph Search ]

The last key piece is graph search. It's the foundational technology for querying all this information. It's one of the most powerful tools we've ever built. And as of this week, it's rolled-out to 100% of US users.

There are two main challenges we have to tackle this half.

[ Discovery: Mobile UI ]

First, we need to continue rolling this out by shipping the mobile interface on iOS, and then getting started on I18N and Android.

Second, we need to make it more approachable. Graph Search is an incredibly powerful tool, but it's also a little bit intimidating.

[ Discovery: Hunch ]

One idea we're exploring is Hunch.

We think there's all this incredibly valuable information in the graph, but it takes too much work to extract it today.

We're going to make it easier. When you tap on the search bar, we'll show you a bunch of things that you can do right now, or tonight, or this weekend. And all of this is built on top of Graph Search. When it's Saturday at 10 am, and you tap on the search bar, you'll see a card for "Brunch Places near San Francisco." Tapping into that will just launch into the mobile graph search experience.

[Click] Or if you're traveling, we'll highlight things like friends of yours that live in this city, or the most popular places to visit while there.

It's kind of like the very first version of News Feed -- there was all this incredibly valuable information on people's profiles, but you had to work too hard to find it. News Feed brought the important information to the forefront. Hunch is about making search even more useful, by bringing the interesting queries for you right now to the forefront.

[ Entities, Connections, Discovery (Redux) ]

We have the technology. We have all the key pieces to start unlocking the knowledge in the graph, and making Facebook a more useful place.

We just need to focus on execution.

We need to improve the quality and coverage of our entity graph.

We need to optimize for meaningful connections between people and those entities.

We need to finish rolling out our discovery tools and make them really good for a few key scenarios.

[ Blank Slide ]

This might seem daunting - we've been working on this for a while, this involves a lot of different teams and a lot of different technologies. But I just wanted to share a quick story.

For years, the Platform team has built tools for developers. And the Ads team has built tools for advertisers. And we didn't really talk. Most of our developers were also advertisers, but internally we were just focused on our silos - we weren't thinking about how all this worked, end-to-end.

A year ago, we started on this project called Neko. The idea was to combine our developer tools and our Ads system into a single product to help developers become successful advertisers on mobile.

It was hard. Most people thought it would fail. In December of last year, we spent hours in that room (point to the Aquarium) debating whether to shut the whole thing down. We almost did. Why throw good money after bad, people kept asking?

Then something happened. We hit a tipping point. We fixed that one last bug, and suddenly the entire system start working. And it's been growing ever since.

The Neko experience has taught me two things.

[ ParkMe Slide ]

First, we can be a great discovery product. I've installed dozens of apps via Neko that are really useful. A few months ago, I found this awesome app called ParkMe, which helps you find the closest parking spot in San Francisco. I would never have gone looking for that app. Never. But Facebook helped me find that, and it made my life a little bit better.

[ Neko Revenue Growth ]

Second, it's working. It's grown from nothing to \$1.75M/day in nine months. That's a \$600M business in less than a year. That's insane!

And it didn't cost us \$600M to build it. This was a team of hundreds. It was a small team working across platform + ads to build an end-to-end solution.

That's how I feel about where we are with search, nearby, open graph, and similar products. We have all the pieces. We just need to make it work really well, end-to-end. This half is about execution and getting the end-to-end experience to be awesome. If we can do that, I really believe we'll make Facebook a far more useful -- and valuable -- tool for people than it even is today.

[ Formula Slide ]

And making Facebook more useful is how we increase utility per time spent.

With that, let me hand it over to Boz.