

# Goldman Sachs Technology & Internet Conference

## Company Participants

- Brian Boland, VP, Advertising Technology
- Steve Chung, CEO

## Other Participants

- Unidentified Participant, Analyst, Unknown

## Presentation

### Brian Boland {BIO 17384107 <GO>}

Good morning. Thanks for spending some time with us. My name is Brian Boland. I'm Vice President of Advertising Technologies at Facebook and in that role I'm responsible for the different businesses that you will see here today, predominantly the work that we're doing to extend our advertising capabilities off of Facebook. And I thought before we jumped into questions it'd be useful to give a brief overview of the different pieces that we have, from Atlas to Audience Network and to LiveRail, to give you a good sense of how these fit together and what we're doing, kind of the method behind the madness. So that we'll walk through in the next little bit.

If you dramatically oversimplify the ecosystem, this will help put in the context what we're doing. We are fully focused on advertisers, we're very focused on publishers. And we are focused on growing their business. If you hear one of the refrains from us, we talk about real business results constantly and we believe that that focus for advertisers of helping them grow their business, on one side. And on the other, are new businesses around helping publishers grow their business is a core focus. So those are the areas that we're looking at how we could extend technologies into an advertiser ad server and into a publisher ad server. Then the one spot in the middle where we can bring those together in ways that make it even easier for people to do digital marketing networks and that's in that kind of exchange spaces in the middle.

When you think about the different efforts that we have based into those spaces, Atlas for advertisers, LiveRail for publishers and the Audience Network, which really extends advertisers campaigns easily off of Facebook and helps publishers very easily monetize their inventory. That's the gross over-simplification of the market and the areas that we are particularly focused around.

So let's go a little bit deeper into the way that the world has changed that has made these efforts for us important for advertisers and publishers. Now a lot of this, like, really calls for a next generation of tools for advertisers and for publishers and what has brought that around is that there is a cross-device world now. We no longer have

a simple world, we have a desktop computer and a single browser, where all of the technology from the last generation just works really well. We now have this multi-device world. And now when we think about what unique things we bring, people-based marketing is a core foundation for all of these solutions that we're bringing to the market, of moving beyond devices, of moving beyond cookies to people, because fundamentally what advertisers care about is reaching people and what publishers care about is creating great experiences for the people who use their services and monetizing those experiences. And in the core, that's really about people. We'll talk about why people-based marketing is actually something we think is pretty special.

So you know the stats; device fragmentation is happening. We know that 60% of people are using two devices a day. And it's even worse when you start adding more devices. We know that almost 25% of people are using three or more devices a day. That trend is going to continue. You all know that coming pretty soon there's going to be watches that are more and more connected. They are going to be more devices in your home as TVs become more interconnected. So you will have a growing number of devices that are connected and you will be spending a growing amount of time with connected devices. This creates a challenge for marketers and publishers who need to deliver their messages to people in a really compelling way that actually grows their business.

This is a fundamental problem that has been plaguing the industry. And we're starting to see those behaviors stir up for people. You may start browsing on one device and you finish browsing on another device. You've experienced that, you might be experiencing it right now on your laptop and your mobile device. You hop from device to device. Whilst other [ph] people are shopping in stores and they have their device with them while they are shopping. How many times have you been in a store and you are doing a couple of things. You may be looking up a product or products in the store or you just maybe on a service, consuming content, while you are shopping, very common experiences that we see people doing.

Now, while these trends have happened, people still buy physical products in physical stores. Now this stat of the 94% of sales still happen in physical stores from the US census in 2014, this blows the mind of our engineers when we share that with them, because they think everything shows a bit of droner [ph] if they get delivered to their door. But the reality is that for most consumers they are still shopping in physical stores.

So we have this math and challenge for marketers where there are these great devices that are connected to people. But there are now more devices that creates fragmentation. And there is this challenge where the business that they are trying to grow the sales that matter to tell whether their marketing works, happens off of a device. That's a very large challenge for our advertisers.

And we think about what's interesting in mobile, mobile has really grown rapidly. And we know that there are a couple of key things that have been missing. One of those is targeting and measurement. We have highlighted the measurement

challenge a moment ago. If you are seeing an ad on your device and buying something in a store, I can't measure that until now. And we think about the technology, the existing technology has been cookie-based and was really designed to run a desktop browser world. And it doesn't transfer well to mobile. And it doesn't transfer well to apps. There are no cookies in apps, it does not exist. So those old technologies just don't cross the device.

And finally, formats, if you think about your experience on mobile, you went from having this giant screen on your desktop or your laptop or you could see advertisements in different places on that screen, you now have a much more narrow screen. You have a narrow screen or things happen in lines. So format and the evolution of the experience for people is a critical evolution for advertising that fundamentally work well on the mobile device. So those have been the challenges that we've seen on mobile and that we had to experience.

If we think about what really matters to solve these challenges, the first one is people-based marketing is a solution. They can help connect the experience across devices. Moving the technology from cookie-based to more modern people-based technology is the next one. Then finally, negative advertising, where the advertising that we're showing is very tailored to the experiences inside those apps and inside that mobile experience. That native component is critical to the evolution of advertising being successful, because it's great for people, you actually like it and it drives results for advertisers, which in turn drives yield and monetization for publishers.

So how are we making that real in all these products? Atlas is the first one we'll talk about, which is our advertiser solution and it is an advertiser ad server. That means that Atlas will deliver the advertising for marketers and will help them measure it. And we are measuring on a real people basis and we can solve the cross-device problem (inaudible). Now people-based is the crux of how we think about Atlas, both from a targeting standpoint and a measurement standpoint. We're not looking at cookies, we are looking at people, because we are able to use the log-in that we have on Facebook in an automated way to understand the delivery of people and the measurement that happens afterwards.

Now, if you look at the current world, you have an ad that you show and that ad shows up across all these devices and across these screens. You can't connect them, because they are individual devices. So in the current system, this shows up as the compression. But we know that's not what's really happening behind the scenes. Behind the scenes is a human game, right. You are behind that screen, whether it's your tablet, whether it's your phone, whether it's your desktop, it is important to understand that there is a person that it's not six individual people or six impressions. But now we have three people. And because we can be people-based, we can understand more about those people and we can understand that we reached three men, we can tell you their age range that we reach those folks. We can say how many times and where. We don't do that on an individual basis. But understanding that we're reaching people, not devices, is important for marketers who care about reach. So by building a system on people based, we have solved the

challenge of knowing what real reach looks like in a fragmented and cross-device world.

Now reach is good. But reach doesn't really get to business growth. It's important to understand how a business has had their sales be lifted by the advertisements that are being shown. And if you look at what happens in clinical trials, for medical clinical trials, you take patients and patients are real people and you can divide those patients into two groups. You have a test group and you have a control or placebo group, right. You divide people. Then you start to look at what happens with the treatment, because in any situation there are going to be people who does get better, right. What you want to know from the medicine is did it make more people better than the norm that would be healed regardless. And that's the importance of having a test and control group, because you can start to see the specific folks who are healed by the treatment more than would have gotten better normally, right. And that gives you confidence that those medicines work.

Now, we can actually do the very same thing with Facebook's technology when it comes to advertising and this the same great work that's happened in direct mail for decades, where we can look at the population, we can divided it into two groups. People whose see the ads and people who don't see the ads. And that enabled us to look at a control group and a treatment group to really tail this back to a lift in their real business results, not just, hey, we are going to take credit for anybody that might have seen an ad. But an important part of this is a lift in their business from people who saw these ads. That is critical to know where to invest your dollars, is that you don't want to just invest dollars. So that someone sees the ad, you want to invest the dollars so that it actually incrementally grows your business. In this kind of methodology, when we look at the control group, people are still going to buy the products in the control group. We look at the treatment group, more people will buy those products if the advertising is successful and that gives businesses confidence that that channel, that publisher is accretive to their business and helping them grow their business, tying it back to real business results. It helps make better decisions.

So here's an example of the campaign that was run on Facebook where we looked at a last touch methodology. So just a last click got all the credit and then we looked at incremental lift and the last click showed a terrible ROI for that campaign. But when you actually looked at whether that campaign was in or out, whether that publisher was in or out, we saw a huge change in the ROI, a 2.2x ROI of incremental -- incremental donations to that campaign.

If you are looking at the old technologies, in the last touch model, they're making a bad business decision. If you are looking at a lift model, right, which tells the truth about what grew their business or in this case grew their donations, they'll make a different set of decisions around their ROI, right. So they would be missing out on incremental donations if they were using the older models. It's fundamentally not good for those businesses.

And as I said earlier, not all of the sales are happening online. We know that so many of the sales, 94%, are happening in the physical world. So we need to take the steps

to be able to measure against real world sales. And through partnerships, with companies like Datalogics. Through the work that we've done to connect offline conversion measurement, we can now, in a privacy-safe way, understand the approaches that are being made in aggregate and show lift for real world physical purchases through things like loyalty cards, through things like the Datalogics' database, which has incredible fidelity and can tie that exposure that ad that you see on Facebook, back to an action that happens in the store that we can tie back to that test and control methodology and give advertisers high confidence that their business is growing in the online world, in the physical world, because of the ads they're running. Then with that information, they can make more sound investments and they can buy advertising that grows their business in a meaningful way, confidently. That's what we are doing with Atlas. And that's where the focus has been on measurement, of making the shift in the world from last generation technology to more modern technology that can help them connect real-world sales with high confidence across every device that people are on.

Now, the next piece is around the Audience Network. And this is kind of the easiest way for advertisers and publishers to connect the work that they are doing with the kinds of targeting we have in Facebook, with the easy way to reach supply on mobile apps. And the Audience Network was designed to take that same kind of targeting that we see on Facebook that advertisers have become used to, that same kind of a native format and be able to extend that from Facebook onto another publisher. So here's an ad that would show up on Facebook and that same kind of a format, the same targeting easily flowed into the Audience Network and can be rendered inside somebody else's experience.

And the important thing that we're really excited about the Audience Network is the evolution of native advertising. Now, these experiences that are really relevant to the app and tailors that experience inside the app. And as we look at how publishers have started to apply this, we can see that they can create these great experiences, where just inside their normal format is an ad, that is a native ad. It fits, it feels better. As a person using their experience, you feel better about these ads, because they feel less jarring, less outside of the norm of that experience and for a publisher, they like these for the same reasons. Design-wise it fits in, from a standpoint of people using their site, it doesn't feel jarring, it feels like a natural part of the experience and it performs really well.

So this is one of the things we're most excited about is this evolution of native advertising becoming more common across the app space on the mobile devices. We move from a world where you used to have all these pages, where you could put ads, where it was easier to put ads, there was less of a tax on people who use your service for the ad that you may put on the page. But now that it's a single column, now that the consumption is so focused on your attention, it is really important from a user experience standpoint that we, as an industry, get this right. And publishers have said this is very important for their business to get this right and have their experience be a compelling one for people. And by the way, the more compelling the experience, the better the user experience, the better the ROI for the publisher. They can monetize much better in this environment.

Now, LiveRail, our latest piece of what we are doing in ad tech in our last acquisition. LiveRail is around extending a lot of the capabilities that we've built on Facebook to publishers on the Web and publishers in mobile. This is about bringing this concept of people-based marketing, of bringing the idea around cross-device, of bringing that same accountability of measurement beyond what we've done on Facebook and onto every publisher in the world. To remind you where it fits in, it is the publisher-centric solution, designed to really focus on growing publishers' businesses, help them create great user experiences and drive yield at the same time.

Now, LiveRail has had a great history. They've been around since 2007. They have built a very, very strong video business, where they have a great set of publishers, you can see on the screen. And they've continued to grow with these publishers, who have been very excited about the potential of what we can do with the foundation that that team has built, coupled with the best parts of Facebook. And the first thing that people are excited about is the concept around people-based marketing, of really starting to deliver to real people.

The challenges that the publishing industry faces are around accuracy of delivery. We know when we look at the Nielsen data on desktops that the Internet average, when you start to get to narrow audiences is 32% accurate in targeting. When you get just gender, it's 59% accurate, which means 4 out of 10 times, you're showing the wrong ad on desktop. And the Facebook data is better than 90% accurate. And we look at mobile, it's even worse, because as we said earlier, the targeting and data doesn't work there. So for publishers, this is a real challenge and as people shift rapidly towards mobile, this creates an even bigger problem for publishers and this is some of the problems that we aim to solve with LiveRail on Facebook.

We're looking, over the next few months, to extend our capabilities to mobile and strengthen that inside of LiveRail, truly extend these feel-based [ph] capabilities and start to bring some of those best-in-class components of Audience Network into publishers via LiveRail.

Now, all these pieces work well together. If we think about the most important pieces that underpin all this, it's the people-based aspect and I've said that 50 times in the last 20 minutes. But that's our focus and it is really how we make that [ph]. The foundation across all of these and how Atlas will be able to bring campaigns onto LiveRail or in the Facebook, be able to measure across all of these touch points, including the rest of the mobile ecosystem and the desktop. We're going to have Facebook seamlessly connect into publishers via the Audience Network and then into LiveRail. These pieces connect together and really focuses on real people, the foundation and real results. Whether you're an advertiser or a publisher, we want to grow your business by proving for advertisers that they grew their sales and for publishers that they actually see better yields and that's kind of the foundation of what we're doing.

So thank you and we can chat for couple of [ph] minutes.

## Unidentified Participant

That was fantastic, thank you very much. We all have tons of questions about what you just went through. So hopefully that helps. How much of a game changer is people-based marketing? I mean it was something that was maybe touched on in the past. But it seems like that's the message that whether it's yourself (inaudible) really going out with, how much of a game changer is it for 2015 for advertisers?

## Brian Boland {BIO 17384107 <GO>}

So let me un-time down that a little bit. It is a game changer. But it's hard to change the game in the course of a year. Changing the game takes a little bit of time. People-based marketing is fundamentally a positive step forward for the industry, because it does a couple of things. One, it has taken the challenge of mobile and this fear of oh my goodness! I don't know how to connect desktop to mobile and my world is just much more complicated. It's even worse on mobile, because it's not just apps. But you also have a browser on your mobile device and believe it or not those show up as two different things in the old technology. So your own device looks like two. I mean that's hard to work around. So it is a game changer to be able to tie these components together and to help advertisers and publishers understand their reach of what's going on and being able to tie back to real-world sales, which is a key component of that people-based aspect. These are all great game changers. It's going to take time.

## Unidentified Participant

It seems like there is a huge education process that has to occur. That was going to be the next question, what are you doing to help educate the advertisers?

## Brian Boland {BIO 17384107 <GO>}

Yes. If you think about the advertising industry, it's big, right? If you look at the agencies, there are hundreds of thousands of people who work in agencies and the largest brands of the world have thousands and thousands of people who work on their campaigns. And you're dealing with functions from the CMO to the brand manager to the data people who execute the campaigns, the agency sides, the planning, there's like lots of people involved. And there's behavior change that we need to help them work through of valuing and goaling [ph] their teams off of these types of metrics. I mean imagine, as a CMO, you could goal your team on business growth. So instead of saying, hey, you need to reach this campaign. But you could say, we want to see X % lift in sales over this quarter. That will be real. That will take time. And we're doing a lot of work. We've done some great partnerships with the agencies, with Atlas as we launched it. We've engaged very heavily with the agency community to work closely with them, because they are a great partner in helping advice their customers on what works and there is education with their teams, hundreds of thousands of people who need to understand these new ways to measure campaigns, these new ways to plan campaigns, moving away from click-through rates as being be all and all [ph] that people just hugged on the click-

through rate to now looking at sales. That's a shift. Then part of it's a conversation, a lot of data they work with the team and helping to make that process over time.

## Unidentified Participant

Do you face any skepticism, because one thing (inaudible) said in the past is that marketing partners -- advertisers don't put a lot of stake in the ROI metrics that Google gives them, because it's their platform, right. So I mean how do you overcome those?

## Brian Boland {BIO 17384107 <GO>}

One of the things that we have held a value from early on in our measurement work and this measurement work is not new. This is the culmination of years of work that people on our management team have done to really prove first that Facebook works. I mean there was a big conversation last couple of years -- three years ago, does Facebook work? And this effort, this work, this very work here is what's solved that problem and proved beyond any shadow of doubt that Facebook worked.

So that was great work from our teams. Now, the way that we did that was not by being completely self-referential. And not saying, hey, buy our stuff, by the way we work and you're going to just trust me on that, right. We totally get that. We have deep partnerships with companies like Nielsen. So Nielsen and Nielsen OCR are great products and they are independent in their industry standards that we support and that we actually think are great for the world. We don't try to create our own metric there as other companies have done. We believe in companies like Datalogics, who is an independent company, who provides that independent that third-party view that can say confidently this works and we are independent and they have not mistaken again.

## Unidentified Participant

Vendors like Datalogix say they can match an offline sale to an online ad with about 70% accuracy. When you think about the level of accuracy that the industry might be able to get to, do you have any views, can it be better than that?

## Brian Boland {BIO 17384107 <GO>}

The industry can always improve and we can always get better. What we want to make sure that people don't get lost is how big of a step change it is to be able to match at that level. So you're dealing with a world where we are moving from having to have surveys where people scan their grocery bags, like they unload their groceries, then they are recording what they actually bought that day to much, much higher fidelity, much, much higher sample sizes and incredibly -- (inaudible) levels much, much lower than that. Now we have fidelities to go even deeper to understand campaigns and creative dynamics that where never before possible. But the industry will always improve, it's just -- it's important that we do this. And the reason that we've been so slow and methodical about this, is that the privacy aspects and putting people first has been a design principle for us. So we want to make sure



we're very clear that we were doing things in a way that protected people's data that we spent time with the industry regulators to make sure that we're doing things really well for people.

## Unidentified Participant

I want to pause for a second and see, we don't have a ton of time left. But questions from the audience. Up, there is one, sorry, way in the back, I can't see who it is.

## Questions And Answers

### A - Steve Chung {BIO 18384322 <GO>}

Hi. Excuse me. Steve Chung, CEO of Frankly, a mobile messaging company here. Two questions for you. You mentioned native advertising on mobile. And one of the things that it's difficult to scale, I think, is the custom ad units that look really native, because every app looks different. Is that a scale challenge for you? And second question is, how important is location awareness in all of the ad products that you have and is that a focus for you?

### A - Brian Boland {BIO 17384107 <GO>}

So the first part, on the challenge of native advertising is that we've created a very generalizable format that makes it easier for any publisher to be able to take in the information required to show a native unit. It's simply a question of prioritization for those ad publishers. How they want to put their design resources to take that information and render it in a beautiful way inside their app. If you look at some of the examples that we've seen people create, they get very creative and have them feel like a seamless part of their app, that takes work. Much like everything else in life, the really good things take hard work. That's the kind of thing on native, that it is not as easy as just drawing a rectangle and things, fill it with whatever you want. But it does yield higher results for the publisher and a much better experience for the consumer. So we're seeing publishers get much better about how they can start to think about that as a part of their design process. Important for them not to think about ad that they like ad on -- or just smack on the page somewhere. But really how do you elegantly put it in there, takes extra work. But again, they are already putting that work in the core design of their product. Why take a large % of your product in pixel space and devalue it by not putting the time in. So we're seeing folks start to learn how to do that in (inaudible). Our job is to make that as easy as possible and help them start to work their way through it. That's what we've been doing and I think we've done a good job on that.

The second piece was around location. So location -- I think location at some point will be very interesting. Right now, we're very focused on these components of really helping people understand measurements through and through and then bringing target ability to mobile. Mobile targeting is very, very nascent today and something we think we can help a lot around.

### Q - Unidentified Participant

Another question in the audience. Okay. So many people, I can't scan the room fast enough. When your sales people -- I mean you guys have a lot of messages to get out to advertisers and agencies this year. When the sales people are sitting down in these meetings, what are their kind of top two or three areas of focus? How do you guys get them focused on the key messages?

**A - Brian Boland** {BIO 17384107 <GO>}

You might be surprised, people-based is one of the messages. We have been on an evolution with our business over the last few years of figuring out who we are as Facebook and in the last three years, we've really understood the value that we have and that theme of people-based has been a core theme from the core people products, all the way through now into ad tech. So we have a very strong dialog and language on people-based, being one of the foundational things that we talk to people about. The second thing is around real results and we actually -- from the Facebook side told advertisers last year incorporating our pitches [ph], if you don't know for sure that we're growing your business, don't spend and that's a jarring message that people don't expect, because they are expecting just to try to pitch themselves up. But really looking and anchoring towards their business and helping them to focus on how would they feel confident, how they prove those real business results is the second message that flows from the core base of teams across ad tech.

And the last one is the shift to mobile. So as we have by necessity and by opportunity, done more and more on mobile, that's been a core part of the conversation and for a lot of marketers, this last year they saw their consumers spending more and more and more of their time on mobile. In the last holiday season they spent a ton [ph] of time on mobile. So for them it's a natural interest in what we can do on mobile. And that's one of the big -- that's a fair big part [ph] of what we talk there. So real people, real results and what we can do on mobile.

**Q - Unidentified Participant**

And what could you do or what are you doing to help prove out the measurement side of it? So when you've got some early adopters that have fantastic result. But when you hear -- I think Sheryl [ph] talked about it on the last call, like we could be doing more. How do you help accelerate that process even more?

**A - Brian Boland** {BIO 17384107 <GO>}

Yes. It's back to that first point around education and making it operational. So when you explain this to CMO at the high level it sounds great.

**Q - Unidentified Participant**

But they get it. But --

**A - Brian Boland** {BIO 17384107 <GO>}

Because they love it, like the -- hey, you can make my digital media accountable, that sounds awesome. The steps to operationalize that it's being very targeted with customers to help them look at the campaign, let's pick a campaign, let's measure it.

So let's start with one campaign, let's understand the impacts of that campaign and how we'd operationalize that differently next time and we extend beyond that campaign to the next set of campaigns.

So it's piece-by-piece on an advertiser basis. And with the agencies that's been a big part of helping us to scale, is that as we train the agencies and have them understanding these new tools and what this can mean, it's helping them advise their clients on ways to start to apply these in a more scalable manner. It will. But fundamentally, this will take time.

### **Q - Unidentified Participant**

Right. So that was going to be the follow-up question and then we have a question in the audience right here. But five years from now, would you be surprised if this isn't the way people are doing their advertising?

### **A - Brian Boland** {BIO 17384107 <GO>}

I'd be happy.

### **Q - Unidentified Participant**

Can it happen that quickly? Is five years enough time, is three years enough time?

### **A - Brian Boland** {BIO 17384107 <GO>}

It's super hard for me to triangulate on the amount of time. I mean it is amazing, five years ago, two weeks ago the iPad came out the first time. It's like that thing blew up over five years. So like amazing things can happen in five years for this one. Man, there's a lot of people who need to make changes that's heart to say.

### **Q - Unidentified Participant**

I was wondering what can you share with us about the economics to Facebook between advertisers who use Atlas, how you benefit, how they benefit and how that's split or what the economics are to you? And secondly, in terms of the publishers who use LiveRail, do you share data? Do they tell you who their users are, do you tell them what their users are doing on Facebook, things like that?

### **A - Brian Boland** {BIO 17384107 <GO>}

We can't really go into specifics on the economics or on the fact that that we believe that people measuring more accurately is good for the industry at large and fair measurement, true measurement is good for Facebook as it is for any other premium publisher. So great measurement is great. On the data front, we have very clear controls in place for how data can flow. We don't share individual user data with publishers, we don't pass that around. There are things that publishers can take advantage of in the system, which is probably why we have the LiveRail system installed on their site. So they can take advantage of these targeting capabilities, without having to have information around people transferred to them, very

protective on the privacy side. That's one of the reasons that we built this technology that way.

**Q - Unidentified Participant**

(inaudible)

**A - Brian Boland** {BIO 17384107 <GO>}

Yes. The question really is on insight, what kind of insights we'll provide back. We're very early on in the product life cycle for LiveRail. But helping advertisers -- right now, publishers are most interested in efficient delivery. Over time, I think they will be more interested in insights and whatnot and that will be (inaudible) later date.

**Q - Unidentified Participant**

We've time for just one quick one right here.

How do you think about third-party ad buying tools and how they fit into your ecosystem?

**A - Brian Boland** {BIO 17384107 <GO>}

So we think they are a critical part of our ecosystem. If you look at our evolution of the Facebook marketing partner program, we've had a long history of being an ecosystem friendly and ecosystem company. We continue to plan to help a healthy ecosystem grow. There are pieces that we need to do from a privacy standpoint and from a delivery standpoint that are part of the technology foundation that we'll build. We expect companies to be able to build great businesses on top of that.

**Q - Unidentified Participant**

All right, with that, I'm sorry, we're out of time. Thank you, Brian. Very helpful.

**A - Brian Boland** {BIO 17384107 <GO>}

Thank you.

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