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<<Mike Latimore, Analyst, Northland Capital Markets>>

Good afternoon everybody. Mike Latimore here with Northland Capital. I'm an analyst for the firm, research analyst. Thanks for joining. This is, I think, a great panel to address the topic of safety and online dating, social entertainment market. We have a number of app operators and we have a number of people from the variety of – let's call them safety organizations and institutes. So I'll just kind of go through a quick highlight here of each participant and then we'll go into some Q&A. So we have Casey Burton on. He's a Director and Senior Counsel with The Match Group. And the Match Group is a global provider of online dating apps. We have Geoff Cook. He's the CEO of The Meet Group. They're in the interactive live streaming service, social delivery app market and social discovery app market.

We have Jeronimo Folgueira, sorry about that pronunciation, but CEO of Spark, one of the largest online dating companies and they just acquired Zoosk recently, so a very strategic acquisition there. And then from the variety of associations and sort of monitor online safety, we have Stephen Balkam, he's the founder and CEO of the Family Online Safety Institute. They're an international non-profit, which promotes online safety for kids and families.

We have George Kidd. He's the Chief Executive at the Online Dating Association. They're a pioneer in standardizing best practices in online dating. And then we have Larry Magid. He is the CEO of ConnectSafely. They're non-profit that helps, educate, connect the tech users about safety, privacy and security. So I think a great panel with those people, delivering services as well as those that kind of monitor best practices. So I appreciate everybody joining today.

The format, basically going to go through some Q&A here and I'll direct the questions to specific panelists and we want to make sure everybody gets a chance to give their opinion on kind of somebody's key topics. So really the first question I have is, is a broad one. What is the goal of safety operations? And then what do you do to keep users safe? And so I think maybe that we'll direct that one to Casey Burton if you want to start from the Match Group.

<<Casey Burton, Director and Senior Counsel, Match Group>>

Sure, thank you very much for having me. We do a wide variety of different things to keep our users safe. But the real goal of the safety operation here at Match Group is kind of threefold and we kind of have tried to separate these into three overarching topic to kind of guide our strategy. The first one is making sure that we provide our users sufficient education to allow them to engage safely while using our products. So these are

things like safety tips and community guidelines and making sure that we're presenting them to the users at appropriate times during the product life cycle. So that's kind of the first aspect, making sure that everybody knows kind of what's going on.

The second aspect is trying to detect any bad actors and/or prevent the bad actors from getting onto our platforms really before they can cause harm in the ecosystem before anybody can ever report them for engaging in a bad action. And so that that can encompass a wide range of different things, whether it's something as broad as an IP block to very targeted AI type operations that would work on an individual level.

And then the third kind of goal of our safety operation is to respond to users, remediate any bad actions that happen and generally be supportive of folks that may have had a bad experience on the platform. And so that is things like providing resources after the fact, after any bad incidents and then also making sure that we're removing any bad actors that sense something bad does happen online.

And then finally, kind of a fourth prong that that we also engage in is working with regulators, working with governments to make sure that online safety, especially in the online dating ecosystem is regulated appropriately making sure that everybody is kind of held to the same high standard that we think that we've set for ourselves. So I think that's kind of the overview of what Match Group does.

<<Mike Latimore, Analyst, Northland Capital Markets>>

Great. Thanks a lot. Jeronimo, do you want to touch on that as well? Again, kind of what is the goal of a safety operation? What do you do to kind of keep users safe?

<<Jeronimo Folgueira, Chief Executive Officer of Spark Networks>>

So, it's surprisingly similar to the Match Group. So our core businesses are very similar. So we basically follow exactly the same three principles and invest a lot in securing basically those three. So I think this is one of the things that the Match Group has done very well and we have, over the years followed that path of providing the same level of security and support for our users. So we do pretty much exactly the same.

<<Mike Latimore, Analyst, Northland Capital Markets>>

Got it. Okay. And then I don't know, Geoff, if you have anything in addition to that. But, Geoff from The Meet Group any additional color?

<<Geoff Cook, Co-Founder, CEO-The Meet Group>>

Sure. Yes, we I think, broadly similarity and we put safety at the core of everything we do. Our users are here to interact and connect and we think that goal of the safety operation is to promote a safe environment free of bullying, hate speech and abuse, to encourage the making meaningful connections. We look to always act in line or even

push forward whatever best industry practice would be while acting in line with all laws and regulations. I think it begins with our code of conduct in terms of service which we put out prominently and some of this stuff is a little in the weeds, but we devote about 45% of our workforce to regulating the content of our apps. We also use various human and technological resources to monitor all visual and text content, visual including live streams and photos.

We have machine learning algorithms that are programmatically detecting possible safety issues, we have a zero tolerance policy for abuse and behavior. And we also encourage members to report abuse with – we believe a very simple reporting feature. I think like the others on the call, we don't allow minors on our apps and we seek to prevent it via a combination of human moderation, text tool analysis, and user reporting. We also push tools out to our creators, so that they can enable their own community to become moderators, especially as it relates to text chats. And we call these moderators bouncers. And they use that tool to help them moderate their broadcast.

There's privacy setting that are part of this, the ability to block specific profiles entirely. We scrub all new daily registrants against databases of sex offenders in the United States. We also educate about the dangers of online safety, of meeting strangers in person, we prominently display safety messages throughout the apps. We don't go as far as ever pinpoint users on the map. We do use geo location, but we never give away exact locations. And we engage in various industry associations to both learn and push forward best practices including the Family Online Safety Institute, the Online Dating Association and we're also a member of Hack 360, which is an effort led by Microsoft to build the moderation algorithm to prevent child abuse.

<<Mike Latimore, Analyst, Northland Capital Markets>>

Great. So for the listeners, the first three responses were from the kind of the app companies that are on the panel here. So maybe I guess, I go over to George, who's also timely in video here. On those same topics do you sort of the responses we heard here does that make sense to you? Should they be doing more or how do you view goal of the safety operations and what people should do to keep you there safe?

<<George Kidd, Chief Executive Officer, Online Dating Association>>

I think it makes absolute sense. I think within the bounds of practicality we can always do more. But there are times when technology might feel against us, but technology can be our friend in ways you've already heard from Geoff. I see this at three levels. It's about the user. You've got all the users, about the user and having a great end safety experience. It's about their trust and confidence in the product. At a business level, I think, its Jeronimo touched on this. It allows the sector to own its destiny and its relationship with its users. If we don't do this properly, regulators, state's attorneys general, whoever it is, will start to make the weather for us. And I think that would be a loss of relationship.

And I think the third is environment. And I think it's an environment in which you want to create great trust and confidence that climate for innovation and investment.

<<Mike Latimore, Analyst, Northland Capital Markets>>

Yeah. Makes sense, makes sense. Great, and then I guess, Larry Magid from Connect Safely, any additional comments there on that topic?

<<Larry Magid, Chief Executive Officer-ConnectSafely>>

Well, first thought I want to pass on is the just is within child safety. ConnectSafely works in child safety but we also work with adult safety, we wrote a Senior's Guide to Online Safety for example and we've got very large section of that senior's guide that focuses on dating safety because as I'm sure people on this call know just because some people are over 50, 60, 70, or even older, that doesn't mean they don't have romantic interests.

So one observation is that over the last 20 years, certainly between the early 90s and mid 2000, mid this decade while the Internet was on a rise, a steep rise violence both against children and dating violence in general, sexual violence in general has gone down. So anybody who wants to correlate online dating with increased sexual violence is actually looking at the numbers in exactly the wrong way.

If you're looking for a correlation and if anybody who knows social science would understand correlations are not the same as causation so well, I can't claim data that shows that online data has dating had made things safer. I can't say that during the period where online dating has driven safety had also gotten better. Violence has gone down. So that's an important thing for people to understand.

The other thing to understand is that ConnectSafely hosts an event we – the U.S. host an event called Safer Internet Day. And the reason we call it safer and not safe is because nobody can guarantee a 100% safety on anything, whether its food safety or transportation safety or safety using tools or whatever it is. Nobody can ever say with absolute certainty that nothing bad is going to happen. What we can do is two things.

We can have best practices on industry such as some of the things that have been talked about today by Geoff and the folks from Match and others. And we can have consumer education – but even when you take best practices, I have a car with airbags and brakes and all sorts of great safety features that doesn't guarantee that I'm going to drive it responsibly. At the end of the day, no matter how good a job the car maker did, there is the possibility of user error or user misuse.

And then finally, there's just dumb bad luck, bad things occasionally happen. So I think it's important to keep that into context. When you look at any online service, there is no social media service that is a 100% safe. There is no video service that's a 100% safe. There's no dating service that's a 100% safe because human beings are involved and

when human beings are involved and I'm not talking about the staff, I'm talking about the user, there are going to be risks.

And the question is how do you mitigate and manage those risks? And from what I'm hearing, it sounds like folks on this call fully understand that both in terms of their practices and their education for user. So I think if there was anything that needed to be beefed up, it's probably the education of users are getting people from all demographic, all age groups, also feel economic and the ethnic groups to fully understand how they can protect themselves when using any kind of online dating app. And at that point, let's focus on the positive, all the wonderful marriages and relationships and other great things that have come out of what you guys do for living.

<<Mike Latimore, Analyst, Northland Capital Markets>>

Got it. Okay. Thanks. Yeah. So I'll just jump onto the next question here, which is a sort of a – somewhat of a follow-on and that is how do you go about determining what is acceptable and unacceptable on your apps? And so maybe Jeronimo, do you want to take a first crack of that?

<<Jeronimo Folgueira, Chief Executive Officer-Spark Networks>>

Sure. So we have very strict rules in our platforms, probably because we focused entirely on serious long-term relationships. And also we have a lot of faith-based relation app. So we are the owners of JDate and Christian Mingle, among others. So our standards are very, very strict. So we don't allow any pictures of minors. We don't allow any pictures of not only nudity, but basically anyone that is dressed or behave in a picture in a very sexual manner, in every picture and every text written is reviewed by one of our agents.

So and no picture is posted to any of our sites until they are approved, manually verified and approved by our agents. And we have around 85 agents in total, excluding the Swiss corporation that we took over yesterday to secure that.

Also in terms of text, we don't allow anything that would be racist or discriminatory or offensive in any way. So – and we'd rather be on the paper side than rechecked text or pictures, send a notification to the user so they would upload a new one or change it. That's basically on content moderation because we offer safe premium. It's really core to our brand proposition. We need to provide high quality profiles and a safe environment. So our thoughts on that are very, very high.

<<Mike Latimore, Analyst, Northland Capital Markets>>

Got it. And then maybe just going over to The Meet Group, Geoff, do you want to touch on – comment Geoff from The Meet Group? Again, it's, how do you go about determining, what is acceptable and unacceptable on your apps?

<<Geoff Cook, CEO, The Meet Group>>

Sure. So, I think that's kind of informed to the code of conduct in terms of service. And basically we meet weekly with a cross functional moderation standards team and that includes executives from legal, the safety operation, product, myself, and the primary focus is just to determine what is acceptable on the apps. And we essentially determined that based on, obviously, the goal is keeping users safe, industry best practice and then we make changes to that based on what we're observing actual behaviors to be. We're actually looking at screenshots and video, user feedback, new features. Whenever there's a new feature, we conduct a review, like this prior changes in law, changes in best practices just across the industry.

And I would say, our moderation standards evolve, photo had a set of standards. We applied that concept of video as well. And then video of course invites new standards. And so we take all of that into account and then we meet weekly to guide it.

<<Mike Latimore, Analyst, Northland Capital Markets>>

Great. And then I guess Casey from Match, anything else you want to add there?

<<Casey Burton, Director and Senior Counsel, Match Group>>

I don't know if there's too much else to add. Obviously, we've got a very large stable of brands and so we do have an internal safety committee, I think similar to what Geoff was talking about where you've got a cross functional set of people, whether it's security, legal, moderation, we've got representatives for each of our brands so that we can kind of get a good global perspective on what is occurring on the various brands, what issues we should be looking out for, what's kind of new in the system. Obviously with fraud, we've got fraud teams kind of continually working through that across the brands as well.

But I think really for us we've got 20-plus years in this industry, kind of living at day in and day out, and you get a really good sense of kind of who people are, what people are, and what people find valuable in their profiles and what people find not to be valuable.

And so, making sure that we have the right set of standards is definitely an iterative process, which I think is what folks discussed. But that said, we're always going to put the thumb on the side of user safety. So if there's really ever a question, we're going to lean towards aside of making sure that the user who is offended or the user who is reporting something is always going to join the – taken up their word, and making sure that we take the right action to reduce harassments, to reduce bad behavior, to reduce profanity, to reduce nudity and sexual contents. So, it's definitely an iterative process and one that we've worked out over a long period of time.

<<Mike Latimore, Analyst, Northland Capital Markets>>

Yeah, right. Great. And then I guess just on that same topic, maybe Stephen Balkam from the Family Online Safety Institute, I mean, you take more of a – you take a global

perspective on all this. So how do you go about sort of figuring out sort of what should be acceptable or unacceptable across these types of apps, I guess?

<<Stephen Balkam, Founder and Chief Executive Officer-Family Online Safety Institute>>

Thank you very much. I've been involved with Skout and Meet groups since 2012. And I've been very impressed actually with both technical but also policy steps that they've taken and continue to adapt over these past seven years or so. One thing I want to build on something that Larry had said earlier and I think that we're seeing a generational shift in the way in which young people are approaching, dating apps in particular the social media more generally. And that is that there is a far greater awareness, far greater skepticism as well for that matter about what has seen and heard online.

I think it would be extremely rare for say young woman to go and meet someone for the first time without taking a friend with her for instance. That's just sort of like so common that they would look at you as if to say, well, of course. Now having said that, something that researcher danah boyd has often stressed is that there are what are called at risk kids and at risk young adults who will play out in a dangerous way both online and offline. And those are the cases that of course that no number of safety measures will necessarily capture why both Larry and I talk about a safer Internet, not a safe Internet.

Those are also of course the ones that end up in the newspapers in the Nightly News and cause a great sensation, and probably because they are so rare. So I would just say that the steps that The Meet Group have already taken are, I would say leading in this space. But of course, there are always new ways to adapt to other possible risks.

<<Mike Latimore, Analyst, Northland Capital Markets>>

Yeah, great. So I guess Larry or George, would you want to comment on that? How you just determine what is acceptable or unacceptable?

<<George Kidd, Chief Executive Officer-Online Dating Association>>

Larry go ahead.

<<Larry Magid, Chief Executive Officer-Connect Safely>>

This is Larry again. Stephen said about at risk individuals is very important to that. On one hand, we cannot design any form of social media around the highest risk individual just like we can't design society around criminals. We have to realize that that the messaging has to be tailored to the specific individuals. So one of the things that we stress and our consumer education as a one size doesn't fit all that the – that we take a kind of a public health approach of primary, secondary and tertiary that you have general messaging and then you have of more tailored messaging for individuals that are at risk that the kinds of folks that Stephen is talking about.

As per what's acceptable, I mean I think it's – the basic things that have been talked about, you have a right to set standards that go well beyond, it was first amendment issues, you are private company, so you have a right to say what it is you find acceptable in your community. So even though it's not illegal to be detected naked, you have a perfect right to say in our community, we don't allow for nudity. We don't allow for hate speech. We don't allow for profanity. If you choose that, I don't know about – I didn't hear the word profanity, but certainly hate speech.

And I think it is important that you create a community where people feel comfortable, but at the same time create a community where people feel that they're able to express themselves. Now it's different in dating of it is in social media like Facebook or people like I would imagine you don't get into too many political debates or things of that nature. But again, creating a community where people feel safe in the broadest kinds of way feel included and feel comfortable presenting themselves.

I mean, one of the things, again, I don't have a lot of personal experience with dating. I've been married for over 30 years, but my daughter met her husband online and no fair amount about it. And how people are treated when it comes to various body types and in other forms of showing respect for people, whether or not you want to date them, doesn't give you license to be critical of them. So those kinds of standards I think are very important to creating an environment where people feel comfortable and want to come back.

And as it turns out, coincidentally, they make sense from a safety standpoint, but they also make sense from a business standpoint. So that's a good, it's not a coincidence. That's a good convergence of motivations, why it's important for industry to create a safe, comfortable environment. So that they and their users can thrive and everybody's going to feel comfortable.

<<Mike Latimore, Analyst, Northland Capital Markets>>

All right. I guess George from the online dating association, anything to add there?

<<George Kidd, Chief Executive Officer-Online Dating Association>>

Yeah, very briefly. When we said duty up, we said dating is for grownups. That's different from saying the dating services can be adult services. We've said, no, they're out there, but they're not services within our community and our membership. They serve a different purpose as far as I'm concerned. I think we would see two businesses, members be clear, be consistent, walk the talk. If you see you're going to do something, do it.

And I think if I had a lesson from about three or four years back working closely with match on a particular challenge, it was realizing that the challenge, I mean, we use the word that companies can have in dealing with users who phone up and say, I have had a

bad and personal experience. Customer service, people who are used to dealing with contractual matters or operational issues may not have been coached in the way in which they are now to deal with complex and extremely personal matters.

So one of the things we did in a association with Match's help and help from others was bringing in the Suzy Lamplugh Trust, which is a charity in the UK that deals with stocking and protective measures. Just to talk to members about how to engage with customers when they actually had a very bad experience and can't articulate, don't necessarily articulate it in the way in which they can go on same thing we think we're hearing another. So I think we've all learned this industry has matured how to deal with complex issues and a huge variety of customers.

<<Mike Latimore, Analyst, Northland Capital Markets>>

Excellent. So a lot of people have talked about, just educating the user base as a key capability here key function. I guess, the next question I would have then is, how do you educate the user base on whatever standards your community has and maybe Geoff from the Meet may be you want to start on that one.

<<Geoff Cook, CEO, The Meet Group>>

Sure. So, I think we look at education and how to do that in the appropriate spot in the app. For example, on our MeetMe app, we include a screen for new users, written in simple language that outlines some of the risks of meeting and moving from the relative safety of a digital world to physical world meeting.

And we have also a clear reminder of our strict content standards that all streamers see every time they stream. We also have a talent team that's regularly in contact with streamers providing direction and guidance, unacceptable behavior. And we also keep abreast of evolving standards for education and look to manage a pipeline of safety related product enhancements to make sure we're at the forefront of education on that topic. We do have something in the works that will kind of take our clear reminders at time of streaming and actually make that a positive acknowledgement.

So rather than just having the screen require the user to read the content standards at least in very short bullet form and acknowledge every time they stream. And so things like that are some of the ways we pushed education to the users.

<<Mike Latimore, Analyst, Northland Capital Markets>>

Great. And how about Casey, do you want to touch on that again, Casey from Match, the question is, how do you educate your user based on your standards?

<<Casey Burton, Director and Senior Counsel, Match Group>>

Yeah. I would say pretty similar. I think a few differences, again, we've got the safety tests from the community guidelines and really it's about getting those messages out to the users. And then it's also, I think about knowing your users. Again, we have some platforms that are maybe more tailored to the different types of users. So for example, on our Match and on our time platforms, which tend to skew a little bit older. We've got a pledge, which is, I think like Geoff was talking about a click button acceptance that says, never send money to people because that group of people maybe at a greater risk of some sort of financial scam.

On OkCupid, we have a click button that's about kind of being respectful, where we've got a little bit broader of a demographic and more people engaging from that standpoint and so trying to focus there. Point of addition, some of our other – in Tinder and others of our properties are doing similar things, kind of targeted to their users. I think we're – on sign up, you've got out of the main safety tips page or I think everybody now has a specific kind of email that goes out maybe a couple days after registration that says, hey, here are some things, to keep in mind, while focusing on safety.

And again, like I said earlier, we're always trying to work with regulators and legislatures to make sure that people in the various states are protected by requiring these sorts of safety tips. We worked couple of years back with the Vermont Legislature to pass a law that requires online dating companies to notify a consumer, who's engaged with a fraudster in a two way conversation. So doing things like that, that really raise the standards for the whole industry is, when we think we found a good idea and trying to push that out to the broader community we think is really important.

<<Mike Latimore, Analyst, Northland Capital Markets>>

And I guess, Jeronimo anything to add to that?

<<Jeronimo Folgueira, Chief Executive Officer of Spark Networks>>

Yes, so working on that, I think to the point, it's about the different demographic. So when you have products that target to a younger demographic, you have more issues around actual predators and things like that. But when you go to all their users, for example, we owned SilverSingles, for singles 50 plus. The older demographic is also more prone to romance scam and they are new to online dating. And I actually found, I think it was Larry that mentioned earlier that the younger generation grew up with digital, so they understand the risk more, so in a way easier to educate them.

What we found is that actually the older demographic is the one that needs more education and it's at the higher risk. And we're doing a lot to try to the cable tutors. So, of course we do all the same thing for the much group that, in the onboarding, we give them tips, we send them emails about the safety. But we are trying to write a lot of articles and give advice and engage with experts in the field to really get the people especially in that demographic in particular people in their 60s to understand that they should never send money, that they should not trust people they meet online and take

safety measure and educating that part of the user group I think is extremely important and sometimes it's actually not properly taken care off. There's a lot of focus on the younger demographics and can be in general, but I think that, actually have quite a risk on the older users that we're trying to address. And I think you need to grow even more attention.

<<Larry Magid, Chief Executive Officer-ConnectSafely>>

This is Larry. If I can just put in a quick a advertisement here. If you go to [connectsafely.org/seniors](https://connectsafely.org/seniors), you'll find our seniors guide to online safety, which deals with a lot of issues about seniors, including the risks of online dating. So that's a resource that you are all welcome to share with your users.

<<Mike Latimore, Analyst, Northland Capital Markets>>

Excellent. And I would mention Larry, your organization, the other one's on the line here. I mean, it's a big part of what you guys do. So beyond that, how do you kind of educate the population in these types of that?

<<Larry Magid, Chief Executive Officer-ConnectSafely>>

I think in person events are often very useful. Even though you're not going to reach millions of people this way, you tend to have a really great exchange. So anytime you can send representatives, either of your organizations or the nonprofits that you work with in the case of seniors, maybe senior center events, in the case of young folks, any kind of maybe a college campus and things like that, to kind of get to know people. I think it very handy and of course publications have such as one, somebody you publish and we publish are obviously useful.

And I really applaud what Geoff talked about in term of the in time delivery of information in a appropriate way on the app. That's so critical because that reaches people at the point of where risk is like to take place. And then beyond that I would just see any kinds of associations working with organizations, which may have nothing to do with either your fields of safety, great groups like ARP for seniors various other organizations, some others groups, whatever, where your users congregate I think is very important.

<<Mike Latimore, Analyst, Northland Capital Markets>>

Stephen from the Family Online Institute, anything to add to that?

<<Stephen Balkam, Founder and Chief Executive Officer-Family Online Safety Institute>>

Sure. I mean, we have created something called Good Digital Parenting, which is part of our website at [fosi.org](https://fosi.org). And on that we have things like the 7 Steps to Good Digital

Parenting. We have short videos, we've got tips sheets, we've got all sorts of stuff. And what's interesting, particularly in the videos which we shot in LA with parents and kids, oftentimes the kids are actually instructing the parents. So we see this as a two way dialogue, and one in which, children, teens, young adults have as much and sometimes more to say in correcting their own parents digital habits and offering some solutions themselves. So we very much believe in protection, but we also very much believe in agency, particularly amongst young people.

<<Mike Latimore, Analyst, Northland Capital Markets>>

And then I guess George, anything else to say from your perspective?

<<George Kidd, Chief Executive Officer-Online Dating Association>>

[Indiscernible] (0:34:54) audio visual content, we share with law enforcement people with charities and distributed it in that way, but producing it is an association that gets out to the smaller entities that don't have a fantastic resources but the gentleman in the room hope they have. The next thing I would say is, when we produce our material, talk about date rape, date safe, actually blending advice on how to have a great experience, with advice on how to keep it safe. It makes that more accessible to people I think than a series of don't do this, look out for this, don't do this, look out for that.

And I think the technique, I found when I was regulating the gambling sector in the UK is, you have to avoid what they called othering. It's other people that make these mistakes. I wouldn't make these mistakes, other people do these dumb thing. And the risk when third parties, state bodies and so on start to come in with messages is that they tend to be top down negative in tone. And just generate that kind of othering response. So I think tone really matters and knowing your audience.

<<Mike Latimore, Analyst, Northland Capital Markets>>

Yeah. Yeah. Okay, it makes sense. Okay. So then there's a variety of contents. It comes across these apps, whether its chat or still images or video, I guess, maybe, starting with Casey, how do you go about the texting and acting on content that violates whatever the standards you are employing here. And then I guess folks from talk about maybe both from manual as well as technology standpoint?

<<Casey Burton, Director and Senior Counsel, Match Group>>

Yeah. So obviously, this is the kind of the meet of what everybody is doing here. And I think it sounds like similar to what folks are doing. We use both human and machine tools in order to review content. So whether that's photos, using some sort of AI, we use both kinds of internal and external AI photo moderation. We've got keywords and phrases that we use and regex's and algorithms and different things like that to review things like bio text with various different mixes. Certain of our platforms like OkCupid have trusted flaggers, which I think operate similar to what it sounds like the Meet Group

bouncers operates. And then of course, you've got the regular users as a backstop to the extent that your kind of upfront moderation fails.

I think our community have done a really good job of making sure that if something slips through our cracks that there are flagging for us that we demand, take action on it relatively quickly. Again, these are – on the tech side, I think, it's something that we're devoting a lot of resources to that we're constantly working on kind of new in different pieces of technologies that we think will keep moving the ball forward in preventing bad actors from getting on and detecting them to the extent they do get on.

So I think, while, there's always going to be a room for humans in this sort of endeavor. We see the technology getting better and better and helping the humans really both triage this. Figure out what the good stuff is. They don't have to review that and so that they can then do a more quality time to the tougher calls. And so we've got kind of that multi-tier system working, which I think provides kind of the best of both worlds as opposed to try and do all human versus all machine kind of working in combination, gets you where you need to be.

<<Mike Latimore, Analyst, Northland Capital Markets>>

All right. Great and that make sense. And I guess, Jeronimo, maybe can you touch on that as well, Jeronimo from Spark? How do you detect an act on content that violate standards?

<<Jeronimo Folgueira, Chief Executive Officer-Spark Networks>>

So basically, because we moderate all the content before it goes into the sites. We don't have live contents, like The Meet Group. So in our case basically, everything gets moderated before it's even sold to users. So the cases where we have to moderate content like this, when there it's like inappropriate messages. And for that we rely on users giving us feedback. So there's a very clear, important for people to report abusing behavior in the platform. And then we block the user straight away. But also we use software to scan the content of the messages, especially for fraud and the scam. So, anyone, for example, asking for a chat from Western Union that will be picked up on our software. So then, we can immediately love that conversation and send a warning e-mail to the people that have been involved. So, we use content mostly to pick up issues on conversations. But outside of that, all the content gets moderated before it's even shown to users in our case.

<<Mike Latimore, Analyst, Northland Capital Markets>>

And in the moderation, is that a mixture of human and technology driven as well or?

<<Jeronimo Folgueira, Chief Executive Officer-Spark Networks>>

Yes. So, it's a story there has been a lot more human and lately wearing certain – the amount of automation, especially image recognition technology has improved a lot in the

last years. And I think it's improving very fast. And I think within a year probably, will be even better by humans. the same protect moderation. So, we are using now a combination of software and people reviewing the content. One thing we are – one thing I think we are missing a bit in the whole discussion is the industry as a whole, because I think the three companies, that two operators here in this call. So, the Meet Group ask and meet, and match, basically all of us are large groups, who care a lot about our reputation and they spend a lot of money on our brands but also on safety and privacy. But there is a lot of the small layers in the dating space that don't have the resources they operate out of eastern European countries. And they though, have the same standards that the players in this call. And I think some of the issue we face in our industry is that some of these and small players just don't operate with the same – with the same quality standards for safety and then privacy. And that of course, puts a negative light on the industry and create some cases that just affects all of us.

So, in that sense, I'm happy when I heard Casey saying that they work with regulators. I think we should all be doing more together trying to build a proper regulation and that this is acceptable to us as there's a lots of large players. but also that ensures that the industry as a whole has minimum standards and the smaller players that wants to come to the – to this industry, kind of comply with the same bar quality that we all applied.

<<Mike Latimore, Analyst, Northland Capital Markets>>

Yes. that makes total sense. Good. And then, just from the Meet Group, maybe, can you talk a little bit about how you detect an act on content and violate your standards? Maybe, a part of that a little bit between messaging, image and video.

<<Jeronimo Folgueira, Chief Executive Officer-Spark Networks>>

Yes, sure. So, broadly, agree with the sentiment from Casey and Jeronimo, going into video, what we're doing is we're essentially proactively sampling the broadcasters' streams algorithmically and on a very high frequency. And we're using proprietary algorithms that we developed for the initial review. And these algorithms clear quite a bit more than about – quite a bit more than half of all the images with an error rate that's low, typically then not of a typical human error rate. Content that doesn't clear the algorithm is reviewed by our safety operation team. We have 240 people in safety operations.

We're reviewing nearly or in some days over 10 million images per day, including 3 million that's reviewed by humans. We also prefer to find the problematic content proactively, before a report. And we – but we do see, abuse reporting is critical and really, as the other side of the coin from education. education is about informing users, so they know what the standards are and without as good education, they might not know what violates the terms except maybe in very egregious cases.

And so like for example, when a user reports a live stream, a screenshot is generated of what was on that user's phone at that moment. that skips the algorithmic review and goes

to the top of the human review queue, and the broadcast typically is watched or listened to by human within 60 seconds, and often quicker than that. We're also employing humans to proactively watch a subset of broadcast based on certain logic and regarding text content, there's a lot of real-time text content, comments and so forth being entered into the stream.

We employ comprehensive lists in many different languages that trigger warnings, black lists, gray lists of what will be either hidden or blocked. And we also empower, as I mentioned before, these content creators to appoint members of their community to moderate those comments. But I would say, we've been certainly investing quite a bit in safety over the years and with live video we dramatically scaled up that team.

But I would say, yes, we've been certainly investing quite a bit in safety over the years and with live video, we dramatically scaled up that team.

<<Mike Latimore, Analyst, Northland Capital Markets>>

Got it. And I guess, Stephen from Family Online Institute, I guess, how do you go about sort of making sure that the industry is appropriately detecting and acting on this? I guess kind of goes with the core of the Standards' efforts, but maybe if you want to touch on a little bit, that'd be great.

<<Stephen Balkam, Founder and Chief Executive Officer-Family Online Safety Institute>>

Sure. We do an awful lot of behind-the-scenes work and then we sit on Safety Advisory Boards for companies such as Facebook, and Twitter, and Snapchat, and others and provide when we describe as constructive criticism. We get to see under NDA products and services before they get to market and get to critique those, get to suggest other ideas about how users could be more safe, or more private, or more secure.

And from time to time, we will call our members out. I've been on record is saying that Facebook should not post beheading videos from Mexico for instance. I've been calling on Google to change the way in which videos go on to YouTube Kids, and so on. So, we act sometimes as a bit of a conscience for the industry. But also we provide and I would say Larry too, Larry is involved as a number of these Safety Advisory Boards. We work to try and constantly get them to up their game when it comes to safety, and as I said, has been working with The Meet Group and Skout team 2012 to do just that.

<<Mike Latimore, Analyst, Northland Capital Markets>>

Thanks. Larry any additional things that you would highlight there?

<<Larry Magid, Chief Executive Officer-ConnectSafely>>

Well, yes, just, I mean, absolutely we also fit on the Safety Advisory Board to Facebook, and Twitter, and Snapchat and work with Google, Roblox, and the number of organizations. And I think that Safety Advisory Boards are a good strategy because it brings in experts from around the world in some cases, but certainly from different organizations. For example, one of the groups, it works with us on both the Facebook and Twitter Safety Advisory Board, with the National Network to end domestic violence.

And I would imagine that that organization would have a lot to say about your industry given the fact that they focus largely on relationship violence. So getting these groups out involved is a great idea. If Stephen is absolutely right, we give behind-the-scenes advice and sometimes give behind or in front of the scenes, or behind-the-scenes criticism either publicly or privately. We try to operate independently, but at the same time respectfully to the company that we work with.

And the only thing I would say is that if you do bring a Safety Advisory Board in, you try to first of all get those folks under NDA, which we are with all these companies and inform them as early as possible around any new product developments so that they can give you constructive feedback before it's too late. Part of the thing that even if had to do, and I've had to do with sort of help lock the barn door after the horse is stolen. There are many organizations including probably some on this call that have come to us, you said earlier an iteration with after a problem has occurred, so I would get that beforehand that makes everybody happier.

<<Mike Latimore, Analyst, Northland Capital Markets>>

And then just last is there anything you want to add?

<<Stephen Balkam, Founder and Chief Executive Officer-Family Online Safety Institute>>

It's simple is great with Jeronimo, common standards and a core set of standards. We decided a year ago that we should not claim or pretend that we were an enforcement body for the membership of the sector. We're about standards and it's then about how people adopt, or adapt, or how we reflect what businesses such as those on this call are already doing.

Certainly domestically here in the UK, we see a lot of law enforcement people are seeing, in the media, for example, ODA badge is part of the test of, are you taking your responsibilities seriously? So I think that the sector works together on the standards that will be the need in circumstance for lawmakers to make law. But if we do this right, we limit the need for that kind of intrusion or interference to that, which is genuinely necessary.

<<Mike Latimore, Analyst, Northland Capital Markets>>

Yes. Great. And so shifting gears a little bit, but this will be for Geoff from The Meet Group, I guess to start it on. Next question is, most people that get these apps, they start by downloading it from Apple or Google Store, so let's say. So I guess maybe Geoff what's your relationship with Apple and Google? How does the process work to submit an app built with these guys? And then, how do you take into account, sort of app distribution partner standards also in your sort of safety operations?

<<Stephen Balkam, Founder and Chief Executive Officer-Family Online Safety Institute>>

Sure. So we have five core apps and we tend to submit new builds for those apps, every two to six weeks through the app distribution partners. Those builds are reviewed and then we typically release that in a matter of days post their review. We are of course aware of recent short report and some of the associated reporting we have not been contacted by any app distribution partners regarding any issue with our multi-years long relationships.

We do believe our safety practices are strong. We invest heavily in safety and we strive to hold ourselves to the bar of an industry leader. As far as how do we take into account the partner standards in the safety operation, I think it's kind of covered by how we just interpret, industry best practice and how we define our codes of conduct and our terms of service. And as long as we're consistently enforcing that, I think our codes are more than sufficient with respect to the standards from the app distribution partners.

<<Mike Latimore, Analyst, Northland Capital Markets>>

Great. Jeronimo, maybe you want to touch on that, how do you – what's your relationship like with Apple and Google? How does that process work to submit any new apps? And then how do you take into account their standards in your safety operations?

<<Jeronimo Folgueira, Chief Executive Officer-Spark Networks>>

Yes. So we have good relationship with Apple and Google, especially for the large app. And we have key account managers that we work closely for new app release and we release new apps all the time. We have plenty of apps for each of our brands, when it comes to safety and then moderation of content we have never had any issues with the Google and Apple. And actually I think our own standards are far, far stricter than their internal policies. So, yes we feel like we'll never have any issues on that front with Apple and Google, simply because the way we run our current business and the way our current products operates is so strict and so strong that we have zero concerns about this particular topic with Apple and Google.

<<Mike Latimore, Analyst, Northland Capital Markets>>

And Casey, any comments on that?

<<Casey Burton, Director and Senior Counsel, Match Group>>

Yes, I mean obviously we are pretty big driver of app store revenue for both Apple and Google, though we've got really good relationship with them being one of the top non-game apps from a revenue perspective, so not much more to add there.

<<Mike Latimore, Analyst, Northland Capital Markets>>

Okay. And I guess, George, you guys talked about being on the boards of Facebook and Twitter and so forth. How do you kind of work with Apple, Google as well and sort of you are behind the seasonal device there as well.

<<George Kidd, Chief Executive Officer-Online Dating Association>>

Historically we've had a good relationship with Facebook in terms of what they're doing over here. With the others, we intend to work through the Internet Association, who set up in the UK alongside the U.S. venture and that's been – the joint talk there has been around Internet safety and what's an appropriate approach to that? You touch – or will you touch on things like age verification and identity checking and that's something where we make sure that we talk closely together.

<<Mike Latimore, Analyst, Northland Capital Markets>>

Good. And then, I think since we are kind of getting – we got few minutes left here, I'll just kind of do two more questions. Maybe not go through everybody. Just one, maybe just – maybe talk about content moderation law enforcement, questions, do you have a relationship with law enforcement? And when and how do you get involved with them? And maybe Casey, do you want to touch on that?

<<Casey Burton, Director and Senior Counsel, Match Group>>

Yes. We've got a really strong relationship with law enforcement. We have developed really good relationships with local police, where our offices are; we work pretty closely with a lot of the different states, Attorneys general and their staffs on all sorts of different issues, whether it's the Texas Attorney general or REITs that has a big push on sex trafficking right now, so we've helped and offer to work with them on a number of different things. We've worked with the Vermont Attorney general on the law that I referenced earlier to try to protect people. So we've got some good relationships there, on kind of the anti-fraud side, we all have a strong relationship with the FCI and the IC3, the Internet Claim Complaint Center and the secret service all of which have kind of different aspects of the anti-fraud relationship.

Kind of on a similar note, we also have a really strong relationship with NCMEC, the National Center for Missing and Exploited Children, which is the group that handles kind of child sexual abuse material here in the United States. Their CEO sits on our advisory council, which is I think, similar to the safety councils that Stephen and others were

talking about. And so on that council we have the CEO of NCMEC; the CEO of RAINN, which is the largest U.S. anti-rape organization; the COO of the National Sexual Violence Resource Center; the CEO of Thorn, which is a child sexual abuse nonprofit started by Ashton Kutcher and some others to try to use technology to detect that, as well as some other folks including Polaris, Tarana Burke, kind of was one of the founders of the Me Too Movement and some academics.

So we've got a broad range of outside advisors that we work with. And then a lot of times they can help hook us into law enforcement as well. As far as what we do with law enforcement, we really cooperate a lot if they're coming to us, so there's – that's one way that we get it, I think very cooperative with Penas, search warrants, whatever, we've got a couple staffs who are – who have those kinds of direct relationships. And then we also cooperate extensively proactively when we find content on our platforms that we believe meets the legal threshold that allows us to report out.

So if we think that somebody is a school shooter or something like that, we will definitely affirmatively reach out to police and notify them of those sorts of things. So I think that's a pretty good summary of where we are at the law enforcement study.

<<Mike Latimore, Analyst, Northland Capital Markets>>

Yes. It is thorough. Good. I guess Geoff from Meet Group, any comments on the topic.

<<Geoff Cook, CEO, The Meet Group>>

Yes. We're in regular contact with law enforcement typically due to request for help with an investigation of one kind or another and say we have good relationships there, we've been told on multiple occasions we're among the more cooperative companies they interact with. We do always aim to go the extra mile with law enforcement. We also notify law enforcement if there is cases of imminent danger, cases of potential suicide, if there is a threat made against persons or properties, if there is a potential issues relating to the content of the minor is posting, we make regular reports to NCMEC. So I think that's some of the things we're doing there with law enforcement.

<<Mike Latimore, Analyst, Northland Capital Markets>>

Okay. How about Jeronimo, anything from your end?

<<Jeronimo Folgueira, Chief Executive Officer-Spark Networks>>

No, very similar to what Match does and The Meet Group, we have very close contact with the police and law enforcement in the different countries where we operate in. We get requests from them and always comply basically with a requests in the laws in the country to support their investigations. I have to say there are very, very few cases where things get to that point and in few cases we also, when we see content that meets the criteria then or situations we call the law enforces ourselves. Then we had similar cases

what Geoff described, where with the user that call us to customer care and we thought he was at high risk of suicidal and then we call the police to support and nothing happened there. But those are very rare cases. I think that was one of those, if we mentioned earlier that when something happens then it becomes very visible in the media. But I have to say given the millions of users we assist to every month, this is suppressing the low the – the amount of cases that, that actually escalate and involves through law enforcement agents.

<<Mike Latimore, Analyst, Northland Capital Markets>>

Right. I'll just do a couple of real quick questions just quickly – there's about a minute over time. The next question is, do you think you'll spend more the same or less on safety next year? Maybe just a real quick answer Jeronimo?

<<Jeronimo Folgueira, Chief Executive Officer-Spark Networks>>

So and the choice about money I think is about what we do and I think we will do even more next year whether it cost in dollars more or less, that to be seen because I do think that there's a huge amount of improvements in technology. So we are all opting more and more software that will help us with a lot of our measures and make our processes more robust and stronger and we can potentially replace manual work with software and that actually will be a lot cheaper. So I think in dollar terms it might not be more, but in terms of what we do and the robustness of our systems, I think it's actually going to get a lot stronger.

<<Mike Latimore, Analyst, Northland Capital Markets>>

Yeah, it makes sense. And Casey, how about from your perspective?

<<Casey Burton, Director and Senior Counsel-Match Group>>

Yeah again safety is definitely a top priority and we always understand that we have to and continue to devote a real resource. We spend millions of dollars a year and run a continue investing in this area, I think similar to what others have said.

<<Mike Latimore, Analyst, Northland Capital Markets>>

And Geoff from The Meet Group, spend more the same or less next year on safety?

<<Geoff Cook, Chief Executive Officer-The Meet Group>>

Yeah, I mean, I would echo that. I would expect to spend more. We currently spend millions as well devoting 45% of our workforce to safety. I would expect to spend more than next year than this year. At the end of the day our mission is to be the best place to meet new people, helping people make these meaningful connections and safety is foundational for that mission.

<<Mike Latimore, Analyst, Northland Capital Markets>>

Yeah, perfect. Great, well couple of minutes over our time allowed here but thanks everybody for listening in online and thanks Casey from The Match Group; Geoff from The Meet Group; Jeronimo from Spark; Stephen from the Family Online Institute – Safety Institute; George from Online Dating Association; and Larry from Connect Safely. Thanks, thanks all for joining very helpful, very insightful, so appreciate your time.

<<Geoff Cook, Chief Executive Officer-The Meet Group>>

Thanks so much.

<<Jeronimo Folgueira, Chief Executive Officer-Spark Networks>>

Thank you.

<<Mike Latimore, Analyst, Northland Capital Markets>>

All right, thank you bye.