

Eric: Thank you very, very much for that kind introduction. So why would Google be here? Very interesting conference. Not a conference we would normally attend. Then one day we started thinking, how much do people use Google for health? And then I realized what's the most important search that I could do? So I typed, "How long will I live?" It seems like a reasonable question. And up comes an age calculator. And I programmed it and it said 67. Wrong answer.

So I reprogrammed it again and I got 86. Right answer, and I'm done. So you see, Google is very important to my health because I have to meet the new programming goal.

Nearly one out of every two Americans have one or more chronic health conditions. I was struck by this. You all are doctors, medical professionals. You all know this. I didn't realize it. Hypertension, arthritis, respiratory diseases, cholesterol, chronic mental conditions, heart disease, eye disorders, asthma, and diabetes. And these are people who live with these things day in and day out and they use the internet a lot now. There's emerging evidence, some of the numbers: 8 million Americans research a health-related topic on the internet; more than two-thirds start their research with a search engine. It turns out that two-thirds of internet search engine users trust the internet whereas a smaller percentage trust their own doctors. This is like a problem, something we can work on together. Usage is especially strong for younger users. Doctors are learning how to work with patients that are better educated about their health.

So for example, two-thirds now of all U.S. physicians are using the internet and they use it for prescription drug interaction, this sort of thing. We have a lot of studies that show this. So what has emerged is a controversy over this question of this new form of internet use, is it good or is it bad? So in Time Magazine, Dr. Scott Hague(?) -- I know you love these controversies -- Dr. Scott Hague says, and these are his words, "A seasoned doc gets good at sizing what kind of patient he's got and how to adjust his communication style accordingly." And he's talking about his particular patient, "I knew Susan was a Googler, queen perhaps of all Googlers, but I couldn't dance with this one," because he had so much trouble with her aggressive knowledge and the way she approached it.

This elicited a doctor fight with Dr. Pereck(?) and this is from him a month later, quoting from the earlier article, "I was unnerved about how she brandished her information, too personal and too rude on our first meeting," he wrote. "He proceeded to call her the queen perhaps of all Googlers, a class of patients he referred to as brain suckers." This is a compliment. He goes on, "So the problem with Dr. Hague's(?) article, other than petulance, is that he's ignoring every single internet trend in healthcare over the last past decade. The medical establishment, in fact, has taken way too much time to understand that the internet is a disruptive innovation that has overturned the status quo. It has leveled the playing field between expert and novice, in this case doctor and patient. And while some

doctors like Dr. Hague may find that challenge threatening to their status as an expert, the web is now providing the kind of information doctors need to be aware of if we want to continue to be good at our job and the kind of trends that will help patients be healthier and smarter.”

So I think this sort of fun fight between two senior doctors lays out the problem that Google wants to help solve. It is a fundamental problem. It is certainly one of the fundamental medical problems and it is certainly one of the fundamental information problems. I was alarmed to find out how much information was being used at Google about personal information. We had no medical training. I have a PhD so I'm called doctor and I always say, “Well, I'm not a real doctor.”

So my first few weeks at Google I show up and we get this letter from a fellow that says, “Thank you for saving my life.” And I go, “Hmm, that's pretty interesting, a little startup.” And so it turns out he was having what you all would know as heart attack symptoms. And so he types them into Google and the first result says, “You're having a heart attack. Dial 911.” So he dials. By the way, that's the correct answer. We're very proud of this.

So what happens is he dials 911 and they show up and they give him -- what is the drug that they give you to make sure you don't die in the middle of a heart attack? Whatever that drug is, they gave it to him. And they said, “Had you not called us immediately, you'd be dead.” So we told that story to our engineers to explain why it was so important to have answers within a tenth of a second, because even seconds matter in health. And we've since received many such you-saved-my-life kind of letters. And it's one thing to run a company; it's another thing to save somebody's life. It's pretty phenomenal.

So we got interested in this question about medical health and health in general, not knowing much about it. And we started looking at the interesting problems in the world where our technology could help. We've formed a group called Google.org and we're working on global public health. So for example, we've picked prevention and cure of blindness, where we're donating money to an incredibly important cause; the eradication of polio, another huge and important cause; eradicating the guinea worm, which has been called the world's most painful disease which we're working with organizations who are, in my view, just heroic, just every one of them a hero, trying to solve something which will compound for the next 5,000 years.

We've also started looking at programs related to global public health and information technology, which is what we do well, can really help here. We like the notion of predict and prevent. So for example, if our computer systems can be programmed in such a way that they can detect early outbreaks, we can get ahead of these waves of information. So early detection, preparedness, and response systems for emerging threats, especially in the third world where a little bit of

uncorrelated data could give us just enough information that boom, all of a sudden there's an outbreak of this particular strange disease in like Laos and we can get there before it crosses over into the much larger and in many cases more dangerous areas because of the crowding. So in a country like Laos where it could take almost nine weeks for a reported case to get into the information system, maybe we can get that information into the reporting systems earlier and then detect them using new mathematical techniques. Pretty interesting.

We can also be using the information that we have to get a lot more information to people that don't have it. It turns out that there are many, many examples where textbooks are really not available. Virtually all of the monies going into textbooks, well if these systems are online you don't need the textbook or you can have it be current. And in many cases we can also use Google to make sure people know that these services, especially the free services, in Ghana for example, that these health services are in fact available to them. People in countries which are not as developed as ours spend an awful lot of time not knowing about systems and services that are available just down the street because the connections are not so great.

So if you take the model that health is important, that information is important and that we have both the resources and the will to work on it, what is the underlying architectural trend that we're working in? And let's just talk about it in the context of the growth of the internet. Everybody here knows the internet is a big deal. It is by far the fastest growing medium in history now: More than 1.3 billion users; on the order of 200 million a year new users. The rate of underlying technology innovation is not slowing down. A technology base case would offer you that Moore's Law, which is the rule that semiconductors double in capacity or speed every 18 months, is going to continue for another at least ten years or so until we hit various photolithographic limits.

There's another bizarre law called Kryder's Law that says that memory doubles every 12 months. So if you have CPUs going at every 18 months, which is by the way a factor of 110 years and you have memory doubling every 12 months, which is about a factor of 1,000 over ten years because of the compounding, you can see the enormous things that could happen. An example would be that in the year 2019, if current trends continue, a device the size of an iPod will have 85 years of video in it, which means that you carry a device which you cannot watch until after you're dead. It's like -- I mean it's like the ultimate dissatisfaction device. There's always something I'm not going to be able to watch on this device.

And even more disturbing, the one that really got me going by the way, we were reviewing this yesterday, there are ten hours of video being uploaded into YouTube every minute. God knows what that quality of that video is but it's coming. So you take a look at this rate and this is going to become much more massive than anything that we have seen.

Blogging is another one. There are on the order of 70 million blogs and 120,000 blogs being created every day. More than half of those are created by people who are less than 18 years old, who have a -- as you know if you have teenagers, they have a lot to say and they're saying it online. And you might, if you're a parent you might want to read it.

So users are going to use this technology and they're going to use it to say a lot about health. They're going to have various forms of not only communities but ways in which they help each other and they provide advice to each other: Did this work, did this not work and so forth. And the notion of daily support groups, the traditional people around the room, is now going to become very much online.

There's something called DailyStrength, which has more than 500 support groups online and works really, really well; something called Psych Central, which has more than 600,000 users who visit their websites, libraries, and communities. We do things like we have with the bird flu, we have both reported cases on a Google Map as well as the communities to study it so that the scientists and the people who think they might be victims of the same disease can all see the same information, etcetera.

We're beginning to see people tell their stories on YouTube. Humanity is fascinating because of our need for self expression. A young woman named Kat created a series of 34 videos about her battle with anorexia and got more than a million people viewing it as she suffered through this terrible disease with obviously a lot of support and help to help to try to address her problems.

It's interesting by the way that the professionals in the room will say, "Oh, my God, we've got all of these crazy people out there who have diseases now commenting it and sharing information." And a lot of people have studied this and it turns out that the vast majority of user reported health information is in fact accurate, including the diagnosis, which is a surprise to me. And the most recent study said that only about six percent of it is inaccurate. And by the way, six percent still means you should go to the doctor. You shouldn't just read online and just do that. You should talk to a professional. But the fact of the matter is that 94 percent is accurate and it's pretty impressive and it shows you that people do want to share accurate information from each other.

Now, architecturally this means, to me this sets up the premise for what Google is doing that the change in power here is transformative and it has occurred in other industries, that everyone else is struggling with it and we want to work with you to make this one be successful. In the entertainment and media industry, you have lots of statistics: 42 percent of users 18 to 29 use the internet as their primary news source, I find this very disturbing; 30 percent of users 18 to 29 use a video sharing site, such as YouTube, daily. So if you're not in that age group, you're not

seeing this cultural shift which if you remember when you were that age seemed obvious to you at the time. To them, this is obvious. It's obvious this is how the world is going to be organized.

And one of the consequences of this is the traditional industries are declining. The one that I worry the most about is CD music. Sales of CDs have declined 19 percent because people either purchase or illegally steal the information online. These are very, very real issues for those industries.

Now when you use Google you can do a number of interesting things. So one of the things that you start is you start learning about the history of medicine. So I started, well, what are some interesting things to learn. And we're scanning all these books, right? Well, there were a lot of books written about health 150 years ago. So here's an example: The full text of Medical Times and Gazette, which is a British medical journal, written, this one in December, 1858, so 150 years ago, the surgical procedure for treating conjunctivitis, which is pink eye. He gives the patient a mixture of laxatives and tells him to apply a dozen leeches to the eye if the pain returns. I presume the leeches probably just, it just changes the pain to a different paradigm. The full text for a treatise of a military surgery and hygiene in 1865 with more than 40,000 surgical operations performed during the U.S. Civil War, presumably all with a large amount of alcohol and vodka, including medical treatment for gunshot wounds, amputations, gangrene, tetanus, and general hygiene in military hospitals.

So I have all this information. I've got this transformative phenomena. I have all of these searches and so forth. I need some solution to this. What I really want, by the way, is something very personal. I want access to my cholesterol test. I want the x-ray on my sprained ankle. Why can't we solve that problem?

Now, we have decided to bring sort of a different model to it. We're going to partner with leaders in healthcare to cross-connect, to make this problem and literally get it fixed. And we want to apply the principles of the internet but we want to apply them in conjunction with the leaders in the medical community to get the right outcome for the end user.

So the first principle that we established was it's the consumer's data. It's not anybody else's data. It's the consumer's data. So from our perspective we take a consumer focused view.

So in this model users can access their data and control who gets to see it and the data follows the consumer wherever they go. So if they move from one provider or one doctor, it's still with them. They take it with them to the next doctor or institution, insurance company, what have you. And this is an important distinction in many of our systems. Think about closed versus open. Cell phones are typically closed. If you buy a cell phone, all your contacts are there. It's very,

very difficult just to switch phones. Whereas, if you think about banking ATMs, when you go from one back to another it doesn't sort of matter except for transaction charges. You can pretty much get any banking ATM to give you the money. The same thing, so you want a system where it sort of doesn't matter, the system takes care of all of these complicated things. It's really end user focused.

There are more than 200 personal health record systems in the U.S. and most of them are closed. They're closed to -- that is they're tethered to a particular health system. And this is a system that we see this commonly in industries that have not yet been fully internetized if you will. And it makes sense because it's not possible to have a single standard and so smart people tend to build a system that solves the problem that they see in front of them and then someone else duplicates some of that work. So here's an opportunity to get these systems tied together and get the best of breed out of everyone.

So in our case, if you take the position that 30 percent of patients switch health insurance companies each year, which is data which was a huge surprise to me, maybe not to you all, the benefit of consumer interoperability is extremely significant. There's one study that said that literally open health care standards, which have been I think discussed at HIMSS for a long time, could deliver savings of \$78 billion, and that's billion with a B, annually, just in terms of the ability for these systems to interoperate, let alone the healthcare benefits which are very important.

So it seems to us that consumer control over the user information will only work if there is a strong privacy and security policy. So in our case our model is that the owner of the data has control over who can see it and trust for Google is the most important currency on the internet. It's easy to understand. If you have a user-centric model and you violate that trust, the users will go somewhere else.

So you have to start off with the premise that the information in your health record, whatever you want to call it, is yours and it doesn't get shared or given to anyone else without your permission. If you do so, then it happens and otherwise it won't.

Now we're in the midst of this enormous shift to what we call cloud computing and cloud computing, the model here is that rather than having all that information stuck on my personal computer, it's stuck on a set of servers. We call them cloud computing or clouds because we used to draw clouds to describe it. And then you can pick up any computer and just access that. And the easiest way to see that model is imagine -- everyone here basically carries a laptop of one kind or another -- imagine what happens when you drop your laptop. It's like a really bad day. Sometimes it's a bad week or a year.

So what you want to have the ability to do is pick up any laptop and with appropriate permission, a login and password, get everything there. So this new emergent model of server-based information and technically what happens is the computer connects to the internet, the program that you need comes down really quickly, in less than a tenth of a second and there it is, as if it had always been there. But the data is managed, I like to say, by professionals because we know how to back your information up. We make sure you never lose it and so forth and so on.

This is a core part of Google's overall strategy, but it's particularly applicable here because why don't I have my x-rays in my cloud? Right? After all they're pictures of me. Why doesn't the doctor just pump it in there and then when I have my next situation it'll just be there? And it doesn't matter what viewing device or so forth. Maybe I'm in a different country. Maybe I've upgraded. Maybe I've switched from a PC to a MAC or something like that. Sorry. Sorry. Sorry, sorry, sorry. I'm on the board of Apple.

When I got -- everyone here has those little yellow immunization cards. I'm terrified I'm going to lose this card and I don't know what it says by the way because it's scribble. But it's really important to go in and out of the country and that's my job. So why can't I just have that in my cloud and when I get there pop up my thing and then just sort of show it?

A more serious example -- I guess these are all serious -- is in Hurricane Katrina. A tremendous amount of health information was lost during that terrible disaster, which again, had it been in a cloud server it would have been kept. So you get the idea.

Now, so you sit there and you go, "This will never happen." We have skeptics in the audience. People say, "Well, he's a nice guy and he's from Google and they're ahead of things and five percent of the people will adopt this stuff." That's always true in year one. But in year ten, it's usually 70 or 80 percent have adopted it. And let me remind you that ten years ago when we started looking at electronic commerce the studies were 80 to 90 percent of the people will never use electronic commerce because they do not trust that their credit card will be safe on the internet. And I'm not suggesting your credit card is safe on the internet now, by the way, but 80 percent of the people now trust the internet with their credit cards. So as people become comfortable with these models, tens and tens of millions of people switch over and as they do we develop the systems that make sense.

So when you think about this model, it's particularly applicable for something like, let me pick x-rays. There are two billion x-rays annually and each x-ray is ten megabytes, that's 200 petabytes. Petabytes is a very large number. In my world it isn't. So you could just put them all online and then we wouldn't have to

argue about this. And then wherever you went you'd be able to have all that information and you'd have it historically. 62 million CT scans annually. These are even bigger files than x-rays. Why are they not available to me wherever I go? Why are they in that one building that I can't remember where I went when I had my CT scan and they've probably lost it anyway because that's not their primary focus? Again, this is a problem that can be easily solved.

So the important thing is that any scenario where information is sort of isolated is a scenario where health is not well delivered. What we want to do is we want to make sure that all that information, however wacky and however relevant and however irrelevant, is available to the professional when they're in a situation like in the emergency room. See, if God forbid I were in the emergency room here in Florida, I'd want whoever is sitting there trying to figure out how to keep me going to have access to the last ten years of my radiological experiences and I'd like them to have it instantaneously. And we can do that now.

So in order to do all of this, we organized ourselves around a health advisory council. I wanted to take a minute and what I'm going to do is I'll show a video of what they had to say and then I want to do a demo of a system that we're now trialing. And I think it'll give you a good sense of where we think this is going. This is version one and before I say anything else I want to mention that Google is not a company that designs a product and ships it and then just sort of waits. We iterate and iterate and iterate and iterate and we iterate on a weekly basis. Our products are in beta test, if you know what that means, or sort of general testing for a couple of years as we try them here and try them there and we are fortunate to have an initial beta test partner, Cleveland Clinic, to do this.

But first, in looking at the health advisory council, we were sort of overwhelmed by 39 new pathogens have been identified. How do we deal with this? Modern travel is dealing with these sort of diseases and spreading of them very quickly. Prescription drugs, there are more than 13,000 prescription drugs on the market today but only a few hundred are actively prescribed. How do we get the other ones, the information about the other ones available? There are 110 medical specialties in the AMA guide. Half of the doctors in the U.S. work in practices with fewer than five physicians. So we have this explosion of information but we have the structure and we have the limitations that exist in the medical community today. How do we bridge that gap?

So we formed this health advisory council and I think maybe what we should do is just run the video and you'll see for yourself what they have to say.

VIDEO

Eric: So we organized this group and we also put together a -- I wanted to get up a list of our -- we organized a set of partners, both as advisors but also some companies

that we're trying to help and I want to get their logos up so you can see them. But the basic idea here was to go to everyone we could find who had a lot of patient data and then work with them to develop standards that were secure, by the way, that would take information that these folks have in their proprietary databases and sock it into the Google health infrastructure that I have been describing. And I suspect when you look at the list you'll see almost all of us interact with many of the firms that are here on the chart.

So the basic idea here is that we developed a set of protocols which is sort of what Google does, which are easy for these guys to connect their proprietary data systems to and on with user permission, take that information and put it into a user place. And that user place, call it a personal health record, call it what you want, can then be worked on.

The problem that we have is that without this information we would be making the end user duplicate a lot of work. So we need these folks as partners. And it's in their interest because they want better health. They want people to have more information and more choices. It makes good sense. And so for example some of them will help with like lists of doctors because their business is insurance so they know what doctors they have and which doctors offer this insurance. Other of them have drug information, drug interaction information. Other ones have just health information in general. And obviously we want to do this as broadly as we possibly can.

So I think I've talked enough here and I think it's more interesting to see/hear a demo anyway. I'd like to introduce Dr. Ronnie Zyger(?). Ronnie is a Google employee who is also an emergency room doctor and has the unusual aspect that he's both a doctor as well as a master's in information technology. Ronnie, where are you?

Ronnie: I'm here. I'm here.

Eric: Here's Ronnie. There you are, Ronnie. And Ronnie is one of the chief architects of this vision. He has been working on this for a long time and his first task was to try to understand how accurate or inaccurate Google was without any help. And he started off looking at taxonomies and today when you use Google and you type in one of these long words that are medical words, the results have been shaped by the judgment and the algorithms that Ronnie and his team invented. So once he put that in place, he decided to work on this broader initiative. Ronnie?

Ronnie: Thank you, Eric. The friendly login page we see here actually is not live yet. But I assure you that everything else you see is real live product. So here we are. This is the home page, the Google Health homepage of Diana. She's a fictional user who's also part of the Cleveland Clinic pilot. Now, Diana just came back from

visiting relatives out of town. Unfortunately, she came down with a bad sinusitis. She saw a local doctor and he prescribed for her Amoxicillin to treat her sinusitis.

Now, if we drill into the details of her conditions list, we see that some of the data was entered by Diana herself and some of the data she imported from the Cleveland Clinic. Now, because she explicitly gave the Cleveland Clinic permission to also pull data from her Google Health account, if we hop over to her Cleveland Clinic My Chart account from Epic Systems, we see that it also now contains her new prescription and her new diagnosis.

Now some of you probably noticed that Diana is allergic to Penicillin. The drug interactions feature of Google Health checks for interactions between drugs, allergies, and conditions.

Eric: But how did -- I'm still confused -- how did this happen? Shouldn't the doctor have figured that out?

Ronnie: So I'll admit, Eric, that when I see patients I do sometimes forget to ask about allergies. And in this case Diana herself may have forgotten about her Penicillin allergy.

Fortunately, her Cleveland Clinic doctors do know about her Penicillin allergy and we just saw that they are also now aware that she was prescribed the Amoxicillin. Diana herself now has a safety check available to her that reminds her to talk to her doctor about this.

Now another very cool feature about Google Health is something that we call Google Health Reference Pages. So the user studies that we've done so far have taught us that consumers really want some basic context, especially about conditions that they may not know much about or that they may be wondering if they have. We include here also some informative, if sometimes a bit spooky illustrations as well as relevant and dynamically generated news, web search results, research articles from Google Scholar, and pointers to discussion groups.

Now, the last thing I want to share with you is what I find most exciting about what we're doing at Google Health. Diana can choose to connect her Google Health account to any of the growing number of third party services that have integrated with Google Health using our soon to be published APIs. And what we're seeing here is a live application that, with the user's explicit permission, has pulled their data from their medication list in Google Health and can display it in a variety of interesting ways that Google Health does not.

Eric: So who wrote this app? Did we write this app?

Ronnie: No, this is written by a company called Sulventis(?).

Eric: Did we know this?

Ronnie: We gave them the access to write APIs.

Eric: Okay. Did we pay them?

Ronnie: We did not pay them.

Eric: Good. Should they pay us?

Ronnie: I don't think they should pay us either.

Eric: Sorry, just checking.

Ronnie: Okay.

Eric: So it's like they can do what they want and just connect into our system.

Ronnie: That's correct. And Diana can choose to work with them if she wants to. So I might want to print this out, this weekly view, and put it by my medicine cabinet.

Another developer created a medicine reminder, a medication reminder gadget that I can put on my personalized iGoogle homepage. And I cannot wait to see the amazing and innovative tools that other developers create for Google Health users.

Eric: For the benefit of the audience, do you have some tools or ideas -- I mean this is just -- I think drug interactions is an obvious one. But as a doctor, there must be like 500 other categories. If you had all that information that you could go over, what are some others that you think would be most powerful?

Ronnie: Well, I think that from my own experience and more importantly from hearing from our users and the experts that we're working with, I think some of the things that would be really neat, if I could enter the immunizations of my children and get a useful dashboard of everything that they've had done, what they need to do next and when; if I could get customized feeds of news and research articles that are targeted to my conditions and my medications.

Eric: Yeah, wouldn't it be nice for example if there were a corpus and then they said, "Ah, the disease you have has been cured. Call here."

Ronnie: I would want to know immediately.

Eric: Yes. Speed matters.

Ronnie: Yes, absolutely.

Eric: Okay. Well, thank you very much, Ronnie.

Ronnie: My pleasure.

Eric: I wanted you to see it because we did this partnership with Cleveland Clinic. Cleveland Clinic is a really neat group. They're very, very large in the way in which they use -- they're large in general. They have a lot of different sites. They have more than 100,000 people inside their medical health system. And so they were willing to work with us to help define this standard, which is of course non-exclusive to anyone. But hopefully this will show you the benefit. And we'll see how well this goes over the next month or two. And as we broaden this, we hope to broaden this to essentially everyone that's possible in the United States.

The technology that's used is extremely simple from our perspective. It's an internal interface which allows you to move data and we use it for a lot of our other applications. The security model and so forth and so on is all standardized. So we've managed to layer this on top of just Google and that's why this will move so quickly and is so exciting.

Cleveland Clinic today has more than 1,370 people in this trial and over the next few weeks we'll find out do we really make a difference in their health, what is missing, what are the next key apps? And one of our messages to you are if you have an opportunity to build an application on top of this platform, because remember this is not just a personal health system. It's really a platform for interacting on users' data with their permission. If you've got an idea that can really change the world in medicine, we want you to build it on top of this platform.

So with that, thank you very, very much for all your time.

Male: To moderate our questions and answers, let's bring out President and CEO, Mr. Steve Lieber.

Steve: Good morning. Good morning. Well, Eric, I think you showed us and told us what we've been waiting to hear this week. You created a lot of buzz with the announcement last week and we certainly wanted to see and hear what you had to show and tell us today.

We're going to turn the lights up and we've got a little bit of time left for some questions. And while we've got people coming up to the mic, let me ask the first one. You talked about consumer adoption of internet technologies and the uptake

and all that and low percentage first year, picks up after that. Have you got any predictions in terms of what that cycle's going to be?

Eric: With respect to these tools, I think it will completely be determined by two things: The ease of use of the interface and then the services that we can provide. The ease of use turns out to be one of the most important things in one of these internet services. It's true not just for health. If people get confused, if you start asking them the wrong questions, they quickly become sort of tired and they move on. So we've worked hard with this user interface to be able to capture health information with people's permission very, very quickly.

The moment you do that, you have to immediately show them something that's useful, like an oh wow moment, like, "Oh my God, I'm healthier," or "I got this piece of information," or "I'm sick," or something. And then once they have that experience, they'll come back and they come back.

So my guess would be that this would grow very quickly to at least early adopters during the first year. It's hard to know after the early adopter phase how quickly. But our goal is everyone or at least everyone who wants this kind of information.

Steve: Great. Okay, let's start over here. Joyce?

Q: It was a great talk and very interesting to see. I'm an analyst in this space and one of my colleagues was hired to look at the payment space and we were surprised to see -- we were expecting to find that Google Payments was really well received and incredibly successful and our sense was that in the payment space it hasn't been that successful and that there hasn't been a sufficient commitment to that space after the product launch. How do we know how committed Google is to this space and how do we get a sense to judge where it will be in a year?

Eric: Well, I disagree with your question about Google Payments. Google Payments is a product that was designed to make it quicker for advertisers to get their money. And on that metric it works extremely well and we certainly put a lot of money and focus on it. We have a lot of partners.

This is an end user product, Payments was not. Payments was really an infrastructure part. So the question here about Google, a consumer product, will be whether consumers like it. And successful consumer products take off extremely quickly so you'll know very quickly. But if we make a mistake or if we don't get the UI right, then it'll take longer. But I can assure you we've been working on this for a couple of years. So many of our queries are health related that we must be successful here, either with this approach or a modification of this approach as we learn what works and we do not.

Q: Great, thanks.

Q: Yes, my name is Corey Siegler(?). I'm in a small rural hospital in Northern New York. And as I listen to this, first of all I applaud you for pushing standards because those are the issues that are really kind of at the core of what we're trying to link all these separate systems together. But in speaking with our physicians, we've really -- when we present them with the data from another physician or outside of something they're familiar with, they have some reluctance to trust that data and there is some compliance and some risk management issues for the facilities in trusting that data. So if they use it for clinical decision making, I'm concerned about the liability. And do you have any comments on that? Have you guys discussed that?

Eric: We have and we have found that more information usually solves this problem. Of course there are people who say, "Well, that's not my information so I'm going to ignore it." Such groups have existed for thousands of years in our history and they've often done really bad things. It's really much better to be aware of the information that other people have, even if you don't use it as your final diagnosis. So even in a situation where you are unwilling or by regulation you're unable to use the information that Google Health has in it, it has to be helpful. It must fundamentally at least inform your decision as a high quality caregiver.

We're not trying to change the way doctors work. We think that the doctor profession is obviously very important and very well thought of. And doctors need to figure out how to use this information to achieve their objective, which is greater patient health. We're providing the information. They'll sort it out.

Steve: Good. Okay, over here on this side.

Q: One of the things you spoke about was the building of trust for people to use these kinds of systems and I think a lot of people would probably feel okay having their information in Google's cloud knowing that you're probably real good at keeping things safe. But a lot of people I've spoken to are also wondering what's in it for Google to have this information? Talking to one of your engineers at the booth, the phrase he used is monetization path. And is there a monetization path for this information that you're going to be holding for people?

Eric: Not in the short-term. We're making a commitment that the data itself will never be shared with anyone without the end user permission. One of the things that we've learned is that if we have a powerful so-called vertical site that does something really, really neat, that person is more likely to use Google in its traditional ways and therefore click on our ads. We have a great success story there with Google News, which you can make a lot of money with ads and other services on Google News but we've decided not to because we know that people who use Google News are more likely to do more Google searches.

So we believe that if you as a citizen, as a health -- as a customer if you will of Google Health, we believe and there's a lot of anecdotal evidence, that you will be using Google for many other things, ultimately click on ads and it's a net positive. And we'll measure that and I suspect it'll be true.

Steve: Great. Okay, back over here on the right.

Q: My name is Sreedhar Potarazu. I'm the CEO for a company called Vital Spring. Interestingly enough, about eight years ago I was a physician at Johns Hopkins, practiced there for several years and my MBA thesis eight years ago was about how we could build community-based networks driving building communities around that. Eight years ago people thought the model would fail. Over the last eight years we have 40 of the Fortune 500 companies now that we've been doing business with where we're building essentially the next Facebook model of healthcare. And essentially as you said earlier, there's an open model and a closed model. Employers are the ones still paying for healthcare today and I can tell you speaking on behalf of 40 of the nation's largest employers they have a big problem in terms of empowering consumers to get information outside of the closed model where advertising is not allowed. And now we're building essentially the next social network amongst consumers, employees, to get all of this information in that closed model because this is not banking. This isn't buying consumer goods. It's financed by people and yet we're giving them the opportunity to find the information outside and they're not paying for it. How do we solve that?

Eric: Well, Dossier(?) is actually one of the partners. I don't know if you saw them on the board. Our general answer is that open standards will allow people to take these proprietary information data, put it into the end user, and then that creates a balance of power. The end user then has a choice of moving. The doctor has a choice of using that information or not. In my experience, looking as a scientist, in most cases people are not very empowered in the system. And this is a step to give them more power.

Steve: Great questions but we're running out of time. Only got time for one more, sorry.

Q: Thank you very much. I'm Paul Shadler(?). I am a practicing physician in Denver, Colorado, and this is exciting, exciting stuff. I do have an occasional pang of paranoia about big brother Google knowing everything about me and everybody else. But as a physician I...

Eric: Wait. It's just me. Sorry.

Q: Just a little old boy from the country. Nothing to worry about here.

Eric: Yeah, grew up in rural Virginia.

Q: But as a physician, I and my colleagues waste so much time collecting data that's been collected in the past and reviewing data that's been reviewed in the past and going over data that's been gone over. And the oh wow moment that I perceive is when Sarah comes in my office. Patients switch doctors all the time now. Sarah comes in. Instead of handing her the form, we say, "Do you have the Google password?" "Why, yes." "Can we access it?" "Yes." We access it. Boom. "Does everything look here good?" "Yes." Her medical information comes in. Her payment information may come in. Her insurance card number. It all downloads. "Sarah, the doctor will see you right now because he's not wasting his or her time reviewing the data. It's all in our system and he'll be with you in just a moment." That's an oh wow moment and that will improve healthcare. Thank you.

Eric: Thank you.

Steve: Thank you very much. Was there a question in that?

Q: There was a question. I forgot the question, I was so excited. So then the question was, and your optimism led me to ask this. It was, "Oh, that'll be simple." 50,000 gargantuan(?) bites, no big deal. So while Google's doing all this easy stuff that you're about to do which a lot of people have struggled with, are you going to go ahead and just easily create a little interface so that these doctors, the 80 percent of the small practices can just use Google EMR to put that into the system and have Google EMR create a nice ED9(?) code and send a bill to the insurance company?

Eric: What I was going to suggest is that's a classic example of a third party app.

Steve: Yep.

Eric: And we've got a number of entrepreneurs here in the room who could see, imagine you've got a situation -- let's take your idea because it's a really good one. You've got a situation where you've got a patient and you've got their medical history and you have their business relationships and with their permission you could imagine a whole bunch of applications which did exactly the kind of thing you're talking about. We're unlikely to do it because we don't really understand that part of the business. But our system is designed as a platform and this is exactly what we're looking for. So I hope you've found that company and make yourself a lot of money.

Steve: Great. Thank you very much. Eric, you have certainly opened our eyes this morning to a whole new world of consumer-facing healthcare and we certainly appreciate you joining us. Please join me again in thanking Eric Schmidt.

Eric: Thank you very much.

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