

(Music)

Mark Masselli: This is Conversations on Healthcare, I am Mark Masselli.

Margaret Flinter: And I am Margaret Flinter.

Mark Masselli: Well Margaret, the healthcare industry is wheeling from a major data breach. This time it was anthem, which oversees some 80 million customers through the Blue Cross and Blue Shield divisions. It's the largest breach Healthcare Company today and it seems to be a growing trend Margaret.

Margaret Flinter: A recent statistic show that health industry hacks, at increased 75% between 2013 and 2014. Well it's certainly an area of concern in so much so that the president went to Stanford University recently to host Cyber Security Summit and encouraged the tech industry to improve online security measures and Anthem has offered to provide identity theft protection for 80 million compromised customers but this is a growing problem that needs more preventative solutions. Well our guest today we have to say is not a cyber security expert but John Nosta is a digital health futurist and he has been analyzing the growing potential of digital health technologies.

Mark Masselli: He is fonder of Nosta Lab Digital Health Sync Tank it's also recently named to The Google Health Advisory Board, a group of global health analyst assisting Google and streamlining its health related search engine.

Margaret Flinter: Lori Robertson, the Managing Editor of FactCheck.org checks in.

Mark Masselli: But no matter what the topic, you can hear all of our shows by going to www.chcradio.com and as always if you have comments, email us at chcradio@chc1.com or find us on Facebook or Twitter, we love hearing from you.

Margaret Flinter: We will get to our interview with John Nosta in just a moment.

Mark Masselli: But first here is our producer Marianne O'Hare with this week's Headlines News.

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Marianne O'Hare: I am Marianne O'Hare with these Healthcare Headlines. A relatively problem free round of open enrollment under the Affordable Care Act ended with a bit of a glitch in a final stretch. On the day before open enrollment was to end there was an outage of an internal revenue service function and may have interfered with as many as half a million people being able to sign up for coverage. But glitch prevented some people from getting their income verified so they could enroll on HealthCare.Gov. The Department of Health and Human Services is allowing those who encountered that glitch on Saturday to receive an extension but they were urging everyone to try and sign up by midnight Sunday February 15th if they could. Still over 10 million Americans signed up for coverage during that second go around ahead of the administration's expectations. Meanwhile families USA and other advocacy groups are urging the administration to give Americans

some additional time beyond the end of open enrollment so they can understand what their tax liabilities will be in addition to their potential subsidies to help offset the purchase of insurance. And for middle-aged women menopause comes with a number of symptoms from mild to severe perhaps the most notable of being hot flashes according to a recent in depth study turns out those sudden bursts of intense heat can last for a decade and a half in some women. Women whose hot flashes started earlier in the process tended to have the symptoms for longer periods of time. African American and Hispanic women seem to have a longest bout with hot flash symptoms in come cases longer than 14 years the average stretch of time women must endure about seven and half years. I am Marianne O'Hare with these Healthcare Headlines.

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Mark Masselli: We are speaking today with digital health futurist John Nosta, Founder and President of Nostalab. I think that is dedicated to the empowerment of digital health and communication in the healthcare industry. He was recently appointed to Google health advisory board comprised of global health thought leaders to assist Google in better directing health in medical searches. Mr. Nosta served as President and Chief Creative Officer for The Common Health Worldwide. Mr. Nosta earned his degree from Boston University in Harvard where worked in cardiovascular research. He has also won numerous distinctions including making of the Digital Health Publications periodically. There is a list of top influence or shaping digital health in 2015. John welcome to Conversations on Healthcare.

John: Thank you very much.

Mark Masselli: You know, there is a lot of excitement around digital health. You have spoken about how all these different ideas are coming together at an inflection point in healthcare in it. It seems like there are many different ideas about what digital health really means. What do you think that inflection really looks like and where are the opportunities and also the vulnerabilities?

John: So there are many, many forces just within the context of this topic that seems to be converging in. I will come to the interviewed question first because you talked about the vulnerabilities. I think that there is a sense of becoming tricky that it becomes a tracker, a device that I whimsically wear on my wrist. It really has no important clinical significance and that's what I think is the emerging. It's really the shift from an option to an imperative as we see technology advancing to the point where we can begin to detect cancer an earlier stage. People call it stage 0. Use of a tracker to track these nano particles as they circulate through your body and are activated by cancer, doesn't become an option, it's not just a sexy pedometer. It becomes a device that can save our lives. And I think that as we move to that we will see that sort of convergent striving youth, it becomes so much more important. People have often talked about this as (inaudible 5:50) that this a game changer and I know that Eric total has articulated this extraordinarily well in his book. But I think that it's even bigger than that. We are not only seeing the emergence of the technological innovation such as a printing press if you will. We are seeing a social imperative. We are seeing the empowerment of the individuals. We are seeing many forces occurring including the ability to garner information on the internet. So

it's really a compliment (inaudible 6:21) that I talk about as selection point in human history. People have said that this is vary well may become this era of health as a defining elements and I know I am getting a bit long winded here, but the ultimate translation of all this is you know, I will pull a lesson out of Volvo's playbook to build it around a single (inaudible 6:43) that ultimately we are seeing the ability to really push survival out to at amazing point.

Margaret Flinter: Well and so much of the focus seems to have been on the overt technology that the smart patient monitors in the absence variables and robotics and I think of people who are seasoned clinicians and you know, if I had one of my colleagues in the office that say yeah but when the patient is scarred and when they really are afraid and they don't know what's going on they want to right into my office and really is that sort of human connection which underlies this and I would be curious how USA Digital Health Analyst and Futurist see Digital Health affecting this relationship, this human bond?

John: It is a great question. It is an important question and I am not so sure how far I want to stick my head on top Margaret.

Margaret Flinter: Oh go ahead, stick it out.

John: Do you know what; I am going to tell you right now, I think that the human touch is over rated. Now today if I ask you if you would like to go for a ride in my driver less car you would cover in fear I am not going on 95 up to Boston and drive in a driver less car, are you kidding me. Ten years from now the same question will be posed and the answer will be how ridiculous it is to have a human driving a car. That's very, very dangerous. It's too unsafe. So I think there will be fundamental shift, and this is in part medicine and science and you know it is human nature, well let's just think that the phone, how horrible the phone was that disconnected the nature of human engagement, well there goes humanity right down put on the drain. We will embrace this technology in the context of the different reality. So if you look at medicine today physicians embrace technology and use it not necessarily to disrupt patient engagement but it's to enhance patient engagement and I think that's our challenge our ability to just a half a bit of the humanity and that's got a leverage technology. So I am a big fan of technological innovation and I think it may provide the opportunity gratefully facilitate human touch. I think the magic of social media as an example of technology is not about technology but about the human connection that people can make and I think we can find some of that in medicine.

Mark Masselli: John one of your many areas of expertise is certainly (inaudible 9:15) from your ears that will go as common health worldwide was perfect in the art of communication and health case space and branding in the health world is becoming increasingly important in research, and they see and this is the second round of open enrollment or the affordable characters added and how important is messaging in the modern era of Healthcare and what role do you see communication and social media continuing to play for policy makers providers and general users of Healthcare?

John: You know, and we often look at the technological development and digital health around the eyes of the innovator. But we have to look at it in the eyes of the

patient and I think that a great idea that no one knows about is a little bit like blinking in the dark, and I think that the ability to build a brand to build what I refer to as a single minded point of difference where we have something we are building our story or (inaudible 10:08) resonates to our community. So I think technology is going to afford us the opportunities to build very smart and brilliant brands. Look, let's take an example of the 50-year-old patient with high blood lipids, high cholesterol. Once they are put on a statin they are handed a sheet of paper of information about side effects dosage and all that kind of stuff, nothing new. That's all been written for the 6th grader and I think that's (inaudible 10:38) because the Stanford professor has to understand that information in the context of science and grasp in all those things that would appeal to him or to her, get the single mom who lives in the deep South has to read that in another context, that's to be relevant to her diet and her lifestyle. So I think the opportunity for us to build a brand that is uniquely suited to the needs of the individual could be extraordinarily powerful. We can also put speech in context for example, why can we treat customized communication around a brand that is uniquely suited to me or to the professor at Stanford crafting a message that is not only relevant.

Margaret Flinter: So we invested billions I think with the (inaudible 11:22) as a country to help move people from paper to electronic health records and I am not so sure it's has been such a huge advance for our patients or for the providers who are trying to organize lots of material within the construct of electronic health records and then get patients to come in and view them via their patient portal and access it. Well what are you thoughts on where we are with The State of The Art and The Science of Electronic Health Records?

John: You know I can throw out the essential word of interoperability I don't think anyone has had a home run. I think the electronic medical record patient portals have been developed out of necessity but we found no social or clinical imperative to push it along. And I think that's our challenge right now with a lot of the areas around technology and digital health there is no clinical imperative. Even though everyone is on the starting line but it seems that everyone standing at the starting line and ready to go but they are looking at each other and not looking at the finish line. And it's a real complex problem, it's a struggle.

Mark Masselli: We are speaking today with Digital Health Futurist John Nosta, Founder and President of Nosta Lab, (inaudible 12:37) dedicated to the empowerment of digital health and communications in the Healthcare industry, he was also recently appointed to the Google Health Advisory Board comprised of Global Health Thought Leaders to assist Google in directing health and medical research. John so that's kind of exciting but talk to us a little bit about what you want to share with what you being to the table and you know, also what you are looking to learn in that environment.

John: Well you know, I think that when we look at innovation in health, there is a new phenomenon in the world and I call it the laboratory. It's the ability to collaborate to foster innovation. Today, it's a collaborative experience. The patients want to be part of that dynamic and it's collaboration that is the solution to getting to superior (inaudible 13:26) so we have seen the same things with companies like Google, that Google is collaborating with companies like Novartis to create in this

example a contact lens that measures blood glucose levels. And isn't that interesting the big news is coming out of companies like Google or Apple around changing the Healthcare dynamics. To me that's the sea change right there. What happened to Big Pharma and their leading role in this but Google is working on to development of nano particles earlier we talked a little bit about detecting cancer at a very early stage, at stage 0 if you are so even Google glass is an example of both of success and failure in the context of clinical medicine, we have seen Google glass as a very important tool. Surgeons are using it. So you know, another one of these devices that is I think very relevant to Google's initiative in the Healthcare space and finally they are working on technology to stimulate the human brain, so in fact the Google on the investment fund, the VC fund is called off 35% health now. We are seeing companies like Google working with Novartis and companies like developing new and interesting ways to not only practice this but to think about care at the very earliest of levels.

Margaret Flinter: We have noted that 5% of Google's 100 billion monthly searches are reportedly health related but I am curious what Google is doing with the nature of these searches in terms of responding to and creating their new products, I thought it was so interesting the partnership that Google launched with the Mayo Clinic and a team of artists to provide these detailed wedded information pertaining to 400 of those common health searches. What is being seen in these billions of health related searches that Google is trying to respond to. So I think that information in of itself is a bit of a condition that information overload is a real problem. It's not only a problem for patients but it's also a problem for the clinician. There is just such an ever increasing amount of information from project guideline to trial selection that these clinicians just can't really handle so I think that the interesting thing is that we have to share that burden and it goes back to this fundamental ideal of moving from control to collaboration and what Google is doing with their search optimization that just was launched last week, what they are doing is acting as a surrogate (inaudible 16:07) of this information, to take it and funnel it through a structured analytics whether that be me or someone else to help guide it. Get it kind of let some patients take a look and help in that dialog, so I think that information over load is a disease and it's a disease not only in the context of a lot of information but it's also a disease in the context of the wrong information and I am not going to mention names of well known physicians or celebrities but they have gotten on their soap box and they have made bold judgments about certain drugs agents and therapies that we have found that in some instances they have been completely wrong and in other instances they have been wrong half the time. So I think what Google was doing you know, stepping up to the place and help qualify clinical information so the this is known part of many that patients can use as a bit more reliable so I think it's a good step forward and I think we are going to see a lot more of that.

Mark Masselli: So I am just talking of a renaissance I mean in terms of your broad view of the world looking at the digital horizon, tell us a little bit about what's going on in your group. What types of things are in your mind?

John: One is innovation must be empowered through communication. And the stories we tell about digital health, whether it be the (inaudible 17:27) that reads you vital off your forehead similar to what (inaudible 17:33) did on Star Trek to the use of nano technology to detect cancer or heart attacks you have to make that story

resonant in (inaudible 17:41) and we are exploring the best ways to communicate innovation because I think that just empowering the patient in a vacuum without embracing the gatekeeper the clinician, the nurse, the pharmacist may do a disservice to the true innovation at hand. Will it really be patient standing up and saying we demand our data that maybe patients will not become organ donors but they will become data donors. So those are some of the interesting things that we are looking at. And the other side of the coin is the fundamental changes in clinical practice and that's things like telemedicine. The ability for an internal resident to speak with an attending about an urgent case through an online connection, but do a first like triage type of scenario is interesting. Visual medicine, the ability to use the biggest processing part of our brain to visually assimilate things, ultrasound being used at the point of need at a car accident and then the emergence of nano technology you know, are the things that are fundamentally changing one thing and this is the real take away, it's moving digital health from an option to a clinical (inaudible 18:55).

Margaret Flinter: We have been speaking today with John Nosta, Founder and President of The Digital Health (inaudible 19:01) Nostalab and a member of the Google Health Advisory Board. You can learn more about his work by going to Nostalab.com or you can follow him on Twitter@JohnNosta. John thank you so much for joining us on Conversations on Healthcare today.

Mark Masselli: At Conversations on Healthcare, we want our audience to be truly known when it comes to the facts about Healthcare reform and policy. Lori Robertson is an award winning journalist and managing editor of FactCheck.org, a nonpartisan, nonprofit consumer advocate for voters that aim to reduce the level of deception in US politics. Lori, what have you got for us this week?

Lori Robertson: We recently fact checked the claim that we call a true but claim. The Republican National Committee said that the average family health insurance premium had increased by \$4,152 under President Obama. That's right but it's a much slower rate of growth than under President George W. Bush. In fact (inaudible 20:01) premiums have been growing at moderate rates for the past few years. The average (inaudible 20:06) premium had indeed gone up by \$4,154 under Obama from 2008 before he took office to 2014, according to the Kaiser family foundation's annual employer survey but that's relatively slow growth for premiums. It's an increase of 33%. In Bushes' last 6 years in office the average family premium went up to 58%, if we look at Bushes' first 6 years the difference is even larger a 78% increase. But the RNP wanted to show what has happened to these premiums under the Affordable Care Act it should have used the 22% increase that has occurred since 2010. The fact is the average family premium has grown more slowly than it did in the previous 5 or the 5 years before that. The recent slow growth in employee premiums (inaudible 20:56) the slow growth we have seen in healthcare spending overall. Experts have said that the law had had a minimal impact the economy had been the major factor, but The Republican's Claim of premium growth fact is that is, is actually an improvement compared with the premium growth before Obama took office and that my FactCheck for this week, I am Lori Robertson, Managing Editor of FactCheck.org.

Margaret Flinter: FactCheck.org is committed to factual accuracy from the country's major political players and is a project of the Annenberg Public Policy Center at the University of Pennsylvania. If you have a fact that you would like checked, email us at www.chcradio.com, we will have FactCheck.org's Lori Robertson check it out for you here on Conversations on Healthcare.

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Margaret Flinter: Each week Conversations highlights a bright idea about how to make wellness a part of our communities and everyday lives. Tons of millions of people around the world have conditions that make it impossible for them to speak on their own, requiring them to adopt to a computerized voice box for communicating, perhaps the most well known of these folks is the physicist Steven Hawking.

Steven Hawking: I would have thought it was fairly obvious what I meant.

Margaret Flinter: The problem is that sound of Hawking speaking through his voice box is the same voice sound say that a 10-year-old girl with neurologic disorder might be (inaudible 22:19) because they have just have been many voice options in the market.

In the US alone there are 2.5 million Americans who are unable to speak and many of them use computerized devices to communicate.

Margaret Flinter: At a recent (inaudible 22:32) speech researcher and innovator Dr. Rupa Patel shared a program she has launched that can change that reality. Vocal ID.

There had to be a way to reverse engineered voice from whatever little is left over. So we decided to do exactly that. We set out to create custom crafted voices that captured the unique vocal identities.

Margaret Flinter: Creating a voice bank of donor voices that will allow voices to be individualized for each unique patient giving them a unique customized personalized voice.

Why don't we take the source from the person we want the voice to sound like and borrow the filter from some one about the same age and size because they can articulate speech and then mix them because when we mix them we get voice that is as clear as our surrogate talker and is as similar in identity to our target talker.

Margaret Flinter: Since this populated talk 16000 people have signed up to be voice donors at the human voice bank initiative. So volunteers like this little girl will read a series of simple phrases over a several-hour period.

Things happen in pairs. I love to sleep. The sky is blue. The clouds.

Margaret Flinter: And then those phrases are matches with the voice footprint of the patient being provided for.]

This voice is only for me. I can't wait to use my new voice with my friend's.

Margaret Flinter: Such speech synthesis will give that person dignity of a speaking voice that is as closely matched your own identity as possible.

They say that giving blood can save lives. Giving you voice can change.

Margaret Flinter: Dr. Patel who is a professor of computer engineering at Northeastern University has launched the website vocal ID.com.

I imaging a whole world of surrogate donors from all walks of life different sizes, different ages coming together in this voice drive to give people voices that are as colorful as their personalities.

Margaret Flinter: The human voice bank initiative, matching vocal donors with millions of people who seek to authentically communicate with friends and family in a voice that most closely matches what would be their own, now that's a bright idea.

Margaret Flinter: This is Conversations on Healthcare, I am Margaret Flinter.

Mark Masselli: And I am Mark Masselli. Peace and health.

Conversations on Healthcare, broadcast from the campus of WESU at Wesleyan University, streaming live at www.wesufm.org and brought to you by the Community Health Center.