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Cutting Edge Technologies from Health 2.0

Mark Masselli:

This is Conversations On Healthcare. I'm Mark Masselli.

Margaret Flinter:

And I'm Margaret Flinter.

Mark Masselli:

Well, Margaret. Officials are gearing up for the next round of open enrollment under the Affordable Care Act, and while the transition may be smooth for some customers, it could be confusing for others.

Margaret Flinter:

That's right, Mark. And it's hard to believe it's a year already since the first open enrollment. Millions of customers who signed up for automatic renewal during the first open enrollment are beginning to get those renewal notices in the mail already. Those who didn't do so must go into their respective insurance exchanges and reapply, especially important to remind customers who incomes have changed.

Mark Masselli:

That's right, Margaret, because it could have an impact on the subsidies they receive. The Department of Health and Human Services is recommending that anyone who purchased insurance through an exchange during the first open enrollment should check to make sure they are current with all of their information. They also may find plans that are more to their liking during the next round of open enrollment, which starts November 15.

Margaret Flinter:

And here's where it can get tricky, Mark. It's the second open enrollment season, but it's the first renewal period on exchanges, and is the first time the health subsidies will factor into tax season.

Mark Masselli:

And certainly they'll be helped by health insurance navigators who will stay busy during this open enrollment period. So if you're confused about your options, reach out for help. It's available online or by phone in many communities across the country. But the good news is, experts don't anticipate the same insurance exchange meltdowns that occurred during the first open enrollment, and that's a positive note.

Margaret Flinter:

Well, the Department of Health and Human Services also isn't expecting that kind of meltdown. They are working hard to make sure there's no repeat of last year's botched rollouts. Meanwhile, all of this online interaction in the name of healthcare is a relatively new phenomenon, Mark. Health information technology is poised to become the single biggest growth area in the healthcare industry as we engage in 21st century practices, a very rapidly evolving field.

Mark Masselli:

In fact, we're just coming off National Health IT week where a virtual community of health information technology professionals and enthusiasts got together virtually to promote policies that will help IT landscape in the midst of rapid development in innovation.

Margaret Flinter:

Our guest today is at the forefront of this emerging discipline in healthcare. Indu Subayia cofounded Health2.0 in 2006 when the idea of

matching web two point O concepts to healthcare challenges seemed like something of a fringe idea. Nine years later, their work is clearly in the mainstream.

Mark Masselli:

Their global conference are noted for showcasing the most innovative ideas emerging, and the ideas that are bound to have impact on healthcare for the future. A great conversation ahead.

Margaret Flinter:

And Lori Robertson looks into false claims spoken about health policy and the public domain. But no matter what the topic, you can hear all of our shows by going to CHCradio.com.

Mark Masselli:

And as always if you have comments, please email us at CHCradio.com, or find us on Facebook or Twitter because we love hearing from you.

Margaret Flinter:

We'll get to our interview with Indu Sabayia in just a moment.

Mark Masselli:

But first here's our producer, Marianne O'Hare, with this week's headline news.

Marianne O'Hare:

I'm Marianne O'Hare with these healthcare headlines. The Obama administration is engaging in fights on a number of fronts globally with air raids over Iraq, and three thousand military personnel heading to West Africa where the Ebola epidemic continues to spiral out of control. With 22 hundred dead including many health workers, and thousands more infected, beleaguered officials and NGOs on the ground have called for a global response to the emerging crisis. The military personnel will coordinate logistical support to overwhelmed healthcare systems and boost the number of beds needed for the growing number of victims. This comes in the wake of concerns the out of control virus could mutate into a more quickly transmittable disease.

It begs the question, "What took so long to detect Ebola when it emerged months ago in Guinea?" Healthcare workers there had not encountered Ebola before, which can mimic symptoms of the far more common malaria, or even cholera. It wasn't until a Doctors Without Borders physician on the scene noticed the prevalence of hiccups among those contracting the mysterious illness. Turns out that's a symptom associated with Ebola, for unknown reasons.

There are many reasons kids in this country are prescribed antibiotics, and although the American Academy of Pediatricians has urged a rollback of prescriptions for things like earaches or colds, apparently providers are reluctant to scale back on their prescribing habits. According to a recent study, while only 27 percent of ear and throat infections are bacterial, children are being prescribed antibiotics close to 60 percent of the time, which translates into about 11 million needless antibiotic prescriptions being doled out each year.

The numbers of uninsured Americans continues to go down in the wake of the Affordable Care Act, three point eight million Americans gaining coverage in the first half of this year, according to recent estimates from the Department of Health and Human Services.

Meanwhile as officials prepare for the next round of open enrollment under the ACA, there's a new marketing campaign afoot. Expect more testimonials from real people who gained affordable coverage, and more hard information about important deadlines that need to be met to gain coverage and sustain it as well.

And while many providers remain skeptical of the healthcare law, their mood about the profession is on the rise. Doctors are over extended, skeptical of changes wrought by the Federal health law, but more optimistic about the future of medicine than they were two years ago, that according to a survey of 20 thousand US physicians. Despite many specific complaints, 71 percent of those polled said they would choose to become doctors again if they were making the choice today, up from 66 percent two years ago. And 50 percent would recommend it to their children, compared with 42 percent in 2012.

I'm Marianne O'Hare with these healthcare headlines.

Mark Masselli:

We're speaking today with Dr. Indu Subayia, a co-founder and co-chair of Health 2.0, which promotes and showcases emerging health tech innovations through a worldwide series of conferences, price challenges, and _____ (6:17). Dr. Subayia is a recognized thought leader in health innovation industries, having earned her MD at Stony Brook University School of Medicine and her MBA from UC Berkeley. Indu, welcome to Conversations on Healthcare.

Dr. Indu Subayia:

Thank you so much. It's great to be here.

Mark Masselli:

You and co-chair Matthew Holt formed Health 2.0 back in 2006. I really want to hear from you about the landscape, but you sort of describe this as pretty close to the fringe sort of initiative, and you held your first ever health conference in 2007 and your first ever health hackathon in 2010. In a few short years the intersection of health and tech has become very much mainstream. What was the genesis for starting the movement of applying web two O concepts to the healthcare space, and who were the primary participants and stakeholders driving the Health 2.0 experience?

Dr. Indu Subayia:

Sure. So if you'll recall all the way back to 2007, this was the year right after Twitter launched. It was the year the...

Mark Masselli:

Hard to believe that it's that short of a time.

Dr. Indu Subayia:

Exactly.

Mark Masselli:

Yeah. Ancient history now.

Dr. Indu Subayia:

It is. And it was the year...we had the iPhone but we did not have the app store, if you can believe that. So this is either really, really early days in this new wave of web and mobile technologies, and what Matthew and I noticed at the time were that there was a lot of social sharing going on among patients living with diseases on the Internet, outside of the traditional healthcare system. And they were using online communities much like Facebook. And we thought, that's really interesting that people are self organizing in healthcare outside of the mainstream healthcare organizations, using social media.

And our first conference was focused very much on those types of technology, and so at our first event a company called Patients Like Me, one of the very first online patient communities for people with very, very serious conditions, it demonstrated, as did Google Health in its first iteration. Microsoft HealthVault was coming out with its first platform for consumers. And that was sort of the spirit of the first conference, people using the web in new ways to connect with each other kind of outside of the doctor's office. And that's why we called ourselves more of a fringe movement because this didn't come from the hospital or from the health plan, it really came from people.

Margaret Flinter:

Well Indu, I think you've introduced over 500 technology companies to the world stage, which is pretty impressive. For those of us that are operating within the healthcare space, the sheer amount of new technology emerging into the marketplace can be pretty overwhelming in its scope. How do you determine which technological innovations are likely to have a significant impact on healthcare delivery or cost or outcomes? Maybe you could share some of your success stories with us, and we appreciate the shout out to Patients Like Me. We've had them at our annual symposium and they certainly do great work.

Dr. Indu Subayia:

They sure do. So we are looking at the space now and following about three thousand companies in this early stage, digital health eco system. And it's staggering considering that at our first conference there were maybe about 30 companies and we kind of covered the gamut at the time. We classify them into categories based on stakeholder that they're serving. And so a large number of companies are for consumers, but many, many companies in this space are also tools for doctors, nurses, healthcare administrators, policy officials. Basically tools that are using data, lightweight technology, and offering a very good user experience to make a better decision in healthcare. Those are our criteria, so what we consider to be Health 2.0 technology.

We do look at data in terms of pilot traction, but one of the things that we stayed clear of at Health 2.0 compared to let's say our friends who are investing in the space, is we don't actually place bets on companies. We like to showcase what's new, what's kind of pushing the envelope, even if it's not quite making money yet, because that's our job as we see it. Really what's changing the game, what's going to make us see things in a new light. And sometimes those companies don't last more than a few years, but they give us an example, and they certainly inspire others to follow up. So we see our role as a little bit differently in that sense.

Mark Masselli:

You know, we've always been fascinated with hackathons, and it's such a radical idea in healthcare compared to previous models of siloed research aimed at developing copywrote inventions that have been the Hallmark of health innovations in the past. But for those who dwell outside the tech innovation space, what is the process like? How does it accelerate the process of the innovation and product

development?

Dr. Indu Subayia:

So hackathon is sometimes just a one day, it can be a two day event, where programmers gather in a room. and people self organize into teams to solve particular problems. And they work on those problems over the course of an eight-hour day, and by the end of the day actually have live working solutions, which is really staggering and something that when I first saw it I really couldn't believe how fast something could be built.

And so when you don't just put a bunch of software programmers in a room, but you include the other perspectives. And so we find that teams that have a patient on them, those are the types of interdisciplinary teams that really build the best solutions. And I think in that sense our hackathons are a little bit different than maybe the hackathons you see in _____ (11:55) solutions. So we'll have doctors in the room, we'll have people living with conditions in the room. And you let people select their own topic. So at the start of the day a few people will go up to the front of the room and say, I'm working on a solution for people with movement disorder and I'd like to use the Xbox Connect, and we've actually had this happen in one of our events. And at the end of the day they've used a gaming system to help people with movement disorders. That's really amazing.

At the end of one or two days, you're not going to get a full fledged product. But what you will get is possibly a blueprint, a prototype. And it has to be functioning at the end of the day, so they can't submit a PowerPoint. And often those go on to be real products. And one example I'll give you, is we were in San Diego with the Department of Health, and at the end of the weekend they hired the team that had built a mobile application for all of San Diegans to follow their health and to live better in San Diego, part of this public health initiative they were given. So that team actually got a job at the end of the hackathon.

Mark Masselli:

Isn't that great?

Margaret Flinter:

I want to build on that a little bit. You've said that we're at this huge moment where we're now stacking data from multiple sources, and that the patients themselves are the source of that data often, with wearable devices, electronic scales, portable EKGs, more coming to market all the time, the new wristwatch. Your approach to designing for Health 2.0 is in creating interfaces that work between these what you call data utility layers and the health interface layers. Tell us more about this concept, and maybe you could share some examples where this convergence is really at work in the healthcare landscape.

Dr. Indu Subayia:

We thought there needed to be a term that really encompassed tools and technology that went beyond the phone. And so we actually did a poll of the audience and we supplied a few candidate examples, and people voted on the term, the health interface layer. Because if you think about it, today your car might be a dashboard that has sensors for your health. Your home, there are companies that have sensors that go on your refrigerator that can track the movement of an elderly loved one to see if he or she has fallen. There's of course now wearable clothing, you know, in T-shirts and socks that have sensors for your health.

And to your point about converging with the data utility layers, there are platforms now in health and outside of health that have the ability to aggregate data across millions and millions and millions of records. So an example might be Samsung and Apple coming into healthcare. They reach millions and millions of folks and what would it mean to have data at that scale on those platforms. And that's what we mean by the data utility layer, those aggregated platforms. It could be the health plans platform, a large EMR provider. So we think of those platforms working side by side with these devices sensed things in our environment that capture data, and together that's kind of building the JCAHO system that we consider the boundaries of Health 2.0.

Mark Masselli:

We're speaking today with Dr. Indu Subayia, co-founder and co-chair of Health 2.0, a coalition of 85 chapters now in five continents, that offer leading market intelligence and new health technology companies. Health 2.0 promotes and showcases these emerging health tech innovations through a worldwide effort and series of conferences, price challenges, and _____ (15:45). You and co-founder Matthew Holt have spent some years in the health future space anticipating which technologies stand poised to have the most transformative impact on care delivery. We were just out in the West Coast at the first international NETA Project ECHO event, which was a gathering of providers from around the world engaged in utilizing telehealth programs to improve access to care, with the hope to reach one billion people by 2025.

And you've seen telehealth in action, and tell us what tech innovations have caught your attention, and what needs to be done to spur government policies to support these technologies.

Dr. Indu Subayia:

Sure. Well, I think that because we have such a mandate, not just in the United States but around the world, to reach people that the system isn't reaching or isn't _____ (16:44) well, I think we're looking at technologies that are low cost that can be used by not just professionals. I think if we're just relying on professionals using these technologies, we're just going to miss people because there's just too many folks to reach and deliver care to. So I think the role of remote health, and whether that's coming by the way of a kiosk that is in a place that many, many people can access. There are now many of these around the country in malls, in public places, that don't have a health professional attached. _____ (17:22) is an example. That's something that we find exciting, where you can go and get your vital signs done at a little station and that data is sent to a care provider possibly hundreds of miles away.

Also looking at this category of noninvasive diagnostic tests. And an example that we just saw recently coming out of New York was a device that kind of looks like a plastic water gun if you will. And if you hold it to someone's eye, and within a few seconds get the results of an eye exam that is actually in clinical trials comparable to that bulky equipment you see at your optometrist's office. If you think of eye disease around the world, it's a leading cause of blindness, and these types of low cost technologies that can be a substitute in some cases for very expensive things attached to hospitals, I think that's very promising.

And there's also a new company called Theranos that has claimed that it can from just a pin prick, just one drop of blood, run a lot of the same lab tests that you now need to collect four and five tubes of blood that you go through for your physical and that takes days and days to analyze.

And so I would say looking to the category of lightweight diagnostic testing that can send the results to a provider who's far away and get the answers back quickly, that's going to change things a lot for a lot of folks.

Margaret Flinter:

Well, I think part of the take home message on this, the world of apps is exploding, the world of wearables is exploding, over a hundred thousand health and wellness apps currently on the market. And we all can see the benefit just from the examples you just gave of using apps to help us make healthcare more accessible and available. And it seemed to me from what I've read, you are also becoming a bit of an interface for developers and Angel investors to facilitate this process of moving from concept to marketplace. And tell us more about that. How does that collaboration work in the global Health 2.0 community in terms of that interface between developers and investors that can really help take some of these potentially very beneficial products to scale and to market?

Dr. Indu Subayia:

Sure. And I think one of the trends we've seen most recently is that people investing in this space are not just financial investors, but they're often providers themselves or large technology companies. There's been a great increase in the number of corporate investors in digital health technology, which I think is very interesting. So there are a number of different ways that Health 2.0 facilitates those interactions. We have events that actually are a little bit more fancy than speed dating, but effectively allow companies to meet with investors based on the criteria the investors ask for. Often interesting partnerships and investments have come out of that. We find if we really prepare the pool of companies for investors ahead of time and showcase the ones that really match their interests, that's something that has worked well.

We also run a number of six and twelve month online challenges. And so an example might be a hospital that is looking to purchase the technology for its senior citizens to help them decrease loneliness in the home. An example right there with _____ (20:56) Medical Foundation. They put up money for the best company that could solve that problem, and they then have a competition. They choose the winner that makes the most sense for them, they award a small amount of prize money, and then they pilot that technology. And so we find that this combination of smaller investment but actual access to piloting sometimes can work better than a big amount of money invested in an early stage company that then takes years to figure out what its doing.

So this concept of competition, platforms, and early stage can apply _____ (21:32) is changing things.

Mark Masselli:

Always interested in how you spread this wealth of information. You've got a Health 2.0 conference getting underway in San Francisco later this month. Your earlier conferences had just probably in a telephone booth but now you have thousands who come, and sort of a wide range. I note that our good friend Eric Topol is coming to be one of your speakers there. But talk to us about the themes this year, and also is this streamed out?

Dr. Indu Subayia:

We tried streaming it and it kind of had sort of mixed experience with that, so I believe we're not streaming this year. But we work very hard to make it very accessible to anyone who wants to come. And if you're a patient, it's actually free to attend Health 2.0. If you're a startup, we offer very, very deeply discounted rates. And so it's really meant to be an inclusive conference for everyone. And we do post

all of our videos online right after the conference. And there's a very active Twitter stream that anyone can follow remotely.

And this year...boy, there's a lot to look forward to this year. Dr. Eric Topol's keynote will be one to watch. I'll be interviewing the President of Samsung Electronics, President Jung Song who will talk about their strategy in the space. The founders of MyFitnessPal, probably the largest platform now for self tracking around the world, they'll both be in attendance and an interview on the first day. We're also having Bernard Tyson, the new CEO of Kaiser. He I think has a strong imperative around under served communities, so I think we'll be seeing that message coming out of Kaiser. And as you know, their model for many health systems around the country, so a lot of them pass there.

There is going to be a wearable fashion runway which _____ (23:22) a fun experience. We're having people actually modeling some of the technology from smart T-shirts to actually a pair of socks this year that can track whether you're going up hill or down hill on your run, so we'll be showing that off. Qualcomm is likely to debut a new type of wearable with possibly a therapy attached to it. Medtronic is going to debut a new type of diabetic sensor that will connect to mobile technology. So that's always exciting. At Health 2.0 we launch new companies every year, more than 10, so there'll be some ones to look out for.

And we'll also have some interesting patient stories. We're going to have Donna Crier on the main stage talking about engaging patients across the spectrum. And IBM is bringing Watson, figuratively. And Watson will not only possibly make a recipe for us on stage, but will also tell us how its solving the challenge of keeping up with journal articles. And a lot of doctors just don't get to read as much as they want to about the scientific literature, and Watson is going to demonstrate how they can take what would take humans a year...

Mark Masselli:

No chess matches with Watson.

Dr. Indu Subayia:

No chess matches. Right, right. It would be unfair advantage. So yeah, it should be a fun show.

Margaret Flinter:

We've been speaking today with Dr. Indu Subayia, co-founder and co-chair of Health 2.0, a coalition of 85 chapters worldwide that offer leading market intelligence on new health technology companies. You can learn more about her work by going to www.health2con.com, and that's the number two. And you can follow her on Twitter by going to [bluetopaz](https://twitter.com/bluetopaz). Indu, thank you so much for joining us on Conversations On Healthcare today.

Dr. Indu Subayia:

It was wonderful to be here.

Mark Masselli:

At Conversations On Healthcare we want our audience to be truly in the know 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:

Well, birth control has become an issue in a few Senate races across the country. And some Republican candidates are proposing the sale of oral contraceptives, or the pill, over-the-counter without a prescription. The idea isn't new. Reproductive health organizations formed a working group to explore the issue a decade ago. They support over-the-counter birth control pills as a way to increase access for women. But Congress can't make this happen. Instead, it's up to a drug manufacturer to submit an application to the Food and Drug Administration, and the FDA to then review and approve it. And when it comes to the pill, there are many different brands and formulations that would have to go through the same process.

In Colorado, Republican Cory Gardner has been pushing the idea and says, "Over-the-counter sales would make the pill cheaper." But it's not clear whether that would be the case. The available research is mixed, and it doesn't specifically address the pill. Research from 2005 found out of pocket costs decreased for antihistamine, but a 2002 study found consumers cost went up for certain drugs that moved from prescription to over-the-counter status. Emergency contraception, or the morning after pill, went up a bit in price when it became available without a prescription.

Under the Affordable Care Act, most private insurance plans are required to cover the full cost of female contraception, including the pill, sterilization, IUDs, and more with no cost sharing. What would happen if the pill were sold over-the-counter? Gardner's campaign says he wants women to be able to be reimbursed through their insurance. But that didn't stop Planned Parenthood vote from saying in the TV ad that he wants women to "pay for all of it." That's not what Gardner has proposed.

And that's my fact check for this week. I'm 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'd like checked, email us at CHCradio.com. We'll have factcheck.org Lori Robertson check it out for you, here on Conversations on Healthcare.

Mark Masselli:

Each week Conversations highlights a bright idea about how to make wellness a part of our communities and every day lives. In the emergency room or the ICU, clinicians are confronted with a myriad of unpredictable medical crises that sometimes can be challenging to diagnose. Most of these clinicians are now communicating with colleagues via their smart phones, often sending images of a patient's unique symptoms or chest x-rays to one another for shared diagnosis.

ICU physician Dr. Josh Landy was seeing a growing trend of image sharing via smart phones to crowd source second opinions from friends and colleagues across the country. But he also was concerned about the potential violation of HIPAA regulations, so he developed an app for that. He created Figure One, a sort of Instagram for doctors, in which images can be de-identified but shared across a dedicated social media platform that would allow input from clinicians within their network. Doctors are using the app to communicate not only with colleagues within their hospital settings, but around the world where someone might have superior expertise with a certain condition.

The app was recently used to share a chest image of one of the patients who presented with a Mid Eastern virus MERS. Dr. Landy says the apps get about a half a million image views a day, with about 80 million total views so far. He sees the potential for this platform only growing as more young digital natives enter the medical workforce. Figure One is a free download through Apple app stores and Google Play. A free downloadable app offering secure HIPAA-complying image sharing among clinicians around the world to reduce the time it takes to zero in on a diagnosis by tapping the collective expert instantly. Now that is a bright idea.

Margaret Flinter:

This is Conversations on Healthcare. I'm Margaret Flinter.

Mark Masselli:

And I'm Mark Masselli. Peace and health.

Female Speakaer:

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