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A Time of True Evolution

It’s an exciting time in the world of healthcare. The wave of modern technology – including mobilization within the healthcare arena – is no doubt top-of-mind for many. As we dive in to September’s Health 2.0 Summit in San Francisco, we at Mobile Healthcare Today are excited to be working with the event organizers to offer you our version of “What’s Hot at Health 2.0?”. Through this online portal, readers will be fully prepared to make the most of their experience before, during and after the event. In addition, for those professionals who aren’t able to attend the conference, the website serves as the ultimate resource – providing an insider’s look at the significant individuals, companies and happenings at this year’s gathering.

Health 2.0 is the perfect place to engage with thought leaders, intelligent mindshare and learn how to grow your network through groundbreaking technology. The event attracts a diverse group of attendees, representing nimble start-ups, global technology companies, major HIT vendors, payors, providers, venture capitalists, software developers, government agencies, patient advocates and more. Participants look forward to show-and-tell demonstrations of cutting-edge technology; lively discussions; and the opportunity to network, exchange ideas and explore funding opportunities.

This is Mobile Healthcare Today’s special show edition for The Health 2.0 Conference. In this issue, we’ll preview some of the conference’s most-intriguing offerings, taking a dive into technologies that are new and innovative, as well as exploring the powerful insight to come from the industry’s leading executives.

The future of the healthcare business is developing before our very eyes. Whether you plan to attend Health 2.0, or to catch up on all the highlights here, we hope you enjoy this special edition of Mobile Healthcare Today.

Tammy Fellows
Publisher
Mobile Healthcare Today
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Healthcare software is serious stuff. Seriously cumbersome, complex and in truth ugly. We forget that healthcare is about people. People that want to live healthier, better lives.

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Innovation in Healthcare Technology: Project Aether Brings Personal Control over Health Outcomes

A small group of four engineers clustered around a table at the Kaiser Permanente Center for Total Health. They tapped in staccato for hours, separate but part of the larger group participating in Health 2.0’s Washington, D.C.-based Code-a-thon in June. As evening drew near and the Code-a-thon winners were announced, it appeared the intense, heads-down work of Team Avanade paid off. The small group took home first place for its “Project Aether.”

More than an award for first place, Team Avanade's Project Aether taps the drumbeat of change reverberating through the healthcare industry. It sees, in part, the convergence of two trends: patient participation in healthcare and technology-led healthcare initiatives that bring patients together with those in the medical community. The Avanade group, led by developers Vlad Shlosberg and Sheetal Shah, took this convergence one step further via The Avanade team’s development of a self-reporting short message service (SMS) tracker that enables patients, physicians and caregivers to interact based on contextual data.

Put simply, Project Aether is meant to provide patients with increased self-awareness. Named Aether for the personification of space and heaven in Greek mythology, the application allows a patient to record data, see that data in the context of a specific outcome (diabetes management or weight loss, for example) and interact with others toward a given health outcome.

“We wanted to build a solution called Project Aether, and we named it that because we wanted this to be based on the patient – patient-centered with mobile technology – because we think most of the healthcare paradigm happens outside the four walls of a doctor’s office or the hospital,” says Schlosberg, during the Health 2.0 June webinar introducing Project Aether.
The morning of the Code-a-thon, Team Avanade studied clinical research in several medical journals, including “The Journal of General Internal Medicine.” They found that if a patient and a physician held similar beliefs on a patient having personal control regarding his health outcomes, then they had a significantly higher medication adherence. In other words, if a patient believes he can impact his own health outcome – and his physician is on board – outcomes are considerably better. With this concept in mind, Team Avanade set out to develop an application that enabled patients to increase self-awareness.

The next step was to determine how exactly to increase self-awareness — through technology. Looking at additional medical journal articles, Team Avanade found that many mobile studies were examining the use of text messages to patients. One study pointed to the efficacy of sending text messages to pediatric transplant patients, reminding them to take their medications. Of those who received text reminders, there was a significant increase in taking medications as prescribed, and an actual reduction in transplant rejections.

“So the efficacy of text messaging from a clinical standpoint had already been shown,” Schlosberg reports. “With that, [we determined] Project Aether really needed to concentrate on text messaging – structured data points from a patient: send a glucose reading, weight, mood, for example – and our system then provides a solution over the Web that provides visualization of that data, and some educational material that is contextual.”

The key to Team Avanade’s plan: Make it simple. And provide contextualization to data points and push it out to patients, caregivers and physicians.

Further, Project Aether enables patients to register for a certain number of chronic conditions and then receive text messages about those conditions. In turn, patients are able to engage with the system through graphically displayed interfaces, and then share that data with their care team, based on a set of rules. So, for example, a caregiver is notified when a patient misses two glucose readings in a row.

What Project Aether provides to patients, in the example of a glucose reading, are actual measurements that then allow the patient to add another condition type, or map to other data points such as additional medications or meal times. Their app also leads users to additional contextual information available on the Web; resources that might help a patient self-correct an issue or become more aware of what’s available relative to a specific condition.

Similarly, Team Avanade was able to build-in notifications and alerts features. The notifications can be programmed to notify patients – or caregivers – of specific tasks, such as a glucose test reminder. The alerts are programmed to go off if a specific
marker is met – for example, if a patient misses two glucose readings in a row, or they go above certain parameters, at which point, a caregiver can be notified.

“The idea was to be able to be very patient- and condition-specific,” Schlosberg states.

One last component Team Avanade added provides the ability for caregivers – in this case physicians – to see how well their patients are doing, compared to others in the community. The idea with this capability is to provide incentives for physicians to enhance care through friendly “competition.”

Avanade will present Project Aether at Health 2.0’s fall conference in San Francisco. The team will also continue the developer challenge at the conference, amongst good company. On June 8, the Office of the National Coordinator for Health Information Technology (ONC) announced its Investing in Innovations (i2) Initiative – a new program designed to spur innovation in health IT. The measure has brought continued support from Health 2.0 (in partnership with Capital Consulting Corporation), including $5 million to fund additional developer challenges. Health 2.0’s September Developer Challenge is part of this initiative.

The i2 Innovation program, made possible by the America COMPETES Reauthorization Act of 2010, signed into law by President Obama on Jan. 4, 2011, is the first administration-wide program using prizes and challenges to advance an agency’s mission. Examples of health IT competition topics include:

• Applications that allow an individual to securely and effectively share health information with members of his or her social network;
• Applications that generate results for patients, caregivers and/or clinicians by providing them with access to rigorous and relevant information that can support real needs and immediate decisions;
• Applications that allow individuals to connect during natural disasters and other periods of emergency; and
• Tools that facilitate exchange of health information while allowing individuals to customize the privacy allowances for their personal health records.

During the summer, Health 2.0, in conjunction with the ONC and the National Cancer Institute, launched the first (of many) i2 developer challenges. The initial contest, “Using Public Data for Cancer Prevention and Control: From Innovation to Impact,” asks developers to use public data to address challenges faced by consumers, clinicians or researchers in the cancer control continuum. Suggested targets include promoting healthy behaviors, early detection and screening, informed decision-making and adherence to treatment plans.

Phase 1 finalists, each receiving $10,000, will be announced during a special session at the Health 2.0 Fall Conference.
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Pathways Toward the Future of Participatory Healthcare

With a tremendous amount of patient-centered change occurring in the healthcare field, there couldn’t be a better time – or perhaps a better sampling of professionals – to discuss the future of participatory healthcare. During the main stage educational session at this year’s Health 2.0 Fall Conference, three leading CEOs will gather to converse about the future of their businesses – and the future of the healthcare business.

"In Conversation with 3 CEOs" features the top executives from three very different companies that are linked by one common goal: engaging people in their own health journeys. Included in the panel are Anne Wojcicki, co-founder and CEO of 23andMe, a retail DNA-testing service that provides information and tools for consumers to explore their DNA; Sona Mehring, founder and CEO of CaringBridge, a website that connects people experiencing a significant health challenge to family and friends; and West Shell, chairman and CEO of Healthline, a company that provides a health-based search engine to consumers as well as health search, advertising and content services to a growing network of publishers, advertisers, destination sites and health plans.

23andMe

Perhaps most well-known for her marriage in 2007 to Google co-founder Sergey Brin, Wojcicki co-founded 23andMe (the year before her marriage) with the concept that through personal genetic testing, 23andMe could generate information that, in turn, would help researchers better understand and develop new drugs and diagnostics. The idea was that by encouraging individuals to access and learn about their own genetic information – while providing some nifty data points – 23andMe could correlate users’ information to further commercial and academic research.

The company, named for the 23 pairs of chromosomes in a normal human cell, furthers its research goals through The Parkinson’s Initiative, launched with Michael J. Fox. The program not only serves as a community forum where people
with Parkinson’s can – after learning about their own genetic history – connect
with others with Parkinson’s, but it also affords them the opportunity to further
Parkinson’s research.

“We want to have a really engaging experience for people so that we can keep
getting information from them,” says Wojcicki in an interview with video news site Big
Think. “Our long-term goal is ‘how do I get information about you today – how does
your Parkinson’s progress in 12 months, in 24 months, in 48 months’ – because that
information will be really valuable to correlate with your genetic information.”

Once 23&Me collects information through surveys and then matches it to
genetic information, its researchers analyze and correlate the data. “What we’re
finding is we’re actually making really interesting discoveries, that might also
integrate with a lot of clinical trials that are happening, [to] figure out why some
people respond [to certain treatments] and why some don’t,” Wojcicki concludes.

CaringBridge

Mehring has followed a different journey – and mission – in founding
CaringBridge. In 1997, a close friend of Mehring’s experienced a life-threatening
pregnancy. After weeks in the hospital for mother, a 1-pound baby girl, Brighid,
was born nearly three months premature. During this time, Mehring asked her
friend what she could do to help. She and her husband asked only that Mehring
call friends and family with updates on mother and baby’s condition.

With a background in IT, Mehring decided she would create a website that
would enable Brighid’s family to post daily updates about mom and baby. Only the
story didn’t end with everyone being happily connected. Tragically, after nine days
in NICU, baby Brighid died in surgery. The website allowed the family to convey
this sad news – at the same time that it enabled a platform for the outpouring of
love and support for Brighid and her parents.

“It was that first website, it was the manual … I quickly knew this needed to be
a service, even before user-generated content was a word,” Mehring shares in a
video interview with Health 2.0. “We needed to provide a service where people
could connect and create their own content [during a healthcare crisis]. I shut the
doors [to my house] and in six to eight weeks, I coded out the application where
people could come, share their own story, share content and pictures.”

Fourteen years later, CaringBridge has reached phenomenal proportions. Each
day, half a million people connect through CaringBridge; and more than 1 billion
visits have been made to personal CaringBridge websites. The CaringBridge
community includes people in all 50 states and more than 225 countries around
the world. “Brighid’s life only lasted nine days and it was a rollercoaster event, but
everyone was connected,” Mehring affirms. “Now, every four minutes someone is

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connected. We’ve learned so much about the power of connecting patients and caregivers to loved ones – that it can make so much of a difference in the way that they heal.”

Mehring admits that in the beginning of CaringBridge’s journey, she didn’t think about the business model, which was subsidized by her consulting business. As time passed, she began to realize that she didn’t want to profit from others’ misfortunes. Today, CaringBridge is a nonprofit organization supported through donations. Mehring, however, has plans for expansion in the future that include enabling people to connect in ways that extend beyond a critical event. “Not only is society ready, but the tools and environment are ready to really explore,” she concludes.

Healthline

While Healthline has always been known as a powerhouse search and content site, Shell, chairman and CEO, is likewise expanding into new areas to keep up with the growing needs of users as technology – and the healthcare industry – evolve.

Part of that transformation is occurring through healthcare reform and the mandate of electronic medical records (EMRs), an area where Healthline’s expertise comes into play. A large part of its work now is turning data sets into actionable information. For example, the company is looking into developing EMR search (while trying to understand transparency tools). It’s also looking into new clinical search applications that allow people to dive much deeper into particular decisions across patient pathways.

At the same time, Healthline is also working with payors and providers to enrich their information-sharing capabilities.

“Payors, quite frankly, are turning into health IT companies,” Shell suggests during a video interview with Health 2.0. “Their business models are being completely legislated obsolete. So they’re looking at how they can take their data sets and customer relationships and provide a lot more value. So we’re working a lot on that. And clearly providers also are struggling heavily on how they can adopt EMRs and even to begin to address the whole meaningful-use issue. So we think that whole intelligence support to the provider marketplace is a huge opportunity.”

Shell predicts that the pace of change and growth in healthcare is going to accelerate beyond anyone’s imagination during the next three to five years – the impact of healthcare legislation. “You put $50 billion into marketplace and you start to lubricate business models and things start to happen. We’re seeing that in a big way,” he shares. “We ain’t seen nothing yet.”

From a patient perspective, that’s perhaps not a bad rate of change.
SEISMIC SHIFTS IN HEALTHCARE:
What’s New, Innovative and Coming

By Renee Boucher Ferguson

Whether it’s healthcare reform, participatory healthcare or consumer technology making its way into patient care (think gaming apps as diagnostic tools), it’s no secret that there are tremendous shifts underway in the healthcare industry. While much of the tumult is occurring as a result of policy makers at the state and federal level, no less of a sea change is mounting with the convergence of healthcare and technology. And there is no better place to discover those changes – what’s new, what’s innovative, what to prepare for – than at the annual Health 2.0 Fall Conference.

Held this year in San Francisco from September 25-27, Health 2.0 takes a comprehensive look at the state of healthcare today as it intersects with changing rules, shifting priorities and emerging technology. What’s interesting is that this year’s agenda approaches these topics not only from the technologist’s perspective, but from the patient, physician and employer perspective as well.

As the culmination of Health Innovation Week, which offers events spread around the Bay Area in the week leading up to the big conference, Health 2.0 will begin with its first full-day pre-conference event. Held Sunday, September 24, the agenda focuses on a number of areas where there is the most activity and
excitement in healthcare today: technologies and issues for doctors, employers, patients and lawyers (yes, you read that last part right). Four sessions will run concurrently during the pre-conference event, including:

**Health Law 2.0**, which addresses the pressing legal issues facing both large and small companies as health technologies enable greater consumer access and control.

**Employers 2.0**, which addresses how technology is changing the workplace by enabling employers to take a proactive role in the health of their employees.

**Patients 2.0**, which brings together hundreds of patients and advocates in an effort to influence our current healthcare system and shape future policy.

**Doctors 2.0**, which features the latest and greatest in tools and services transforming physician practices.

The full conference event is taking on an important new theme that is emerging at the intersection of healthcare reform and technology innovation: big data and data analytics. As healthcare data proliferates in all directions – from big payors, big providers and patients themselves – and its digitized, the question arises: How will big data mining drive healthcare decisions? And as federal dollars fund comparative-effectiveness research and health plans – while providers, pharma and product companies mine vast amounts of health data – another question arises: Can big data inform better decisions for better healthcare outcomes? Health 2.0 will investigate these questions in its aptly titled session, “Data Drives Decisions: The New World of Analytics, Data Mining and How Big Data Will Transform Health Care.” A separate session, “The Next Generation of Health 2.0 in the Doctors Office,” will explore the outcomes of digital medical records, taking a look at SaaS and cloud-based medical record products and services. This session will examine which vendors – legacy or startup – have a better shot at winning the race to bring electronic medical records to the 70 percent of American practices that don’t have them, as well as reviewing which services are needed.

On the other side of the data discussion – and for the first time at Health 2.0 – there will be a session on platforms, devices and the convergence of the analog world and the world of hardware (think wearable
monitoring devices) that is pushing the envelope of how patients are self-tracking their health. “Data Utility Layer, Unplatforms…and Now Personal Sensors, Too!” Will go beyond the smartphone to look at how the analog world intersects with hardware, including any number of devices that measure any number of human activities.

Another session, “User-Generated Health: From Intelligent Communities to Self-Tracking and the Quest for Personalized Health Platforms,” will take user-generated data one step further to look at how communities are evolving from simple support mechanisms to personal platforms for disease management, behavior change and data analytics. The session will look at the themes of peer and professional support, information sharing and delivery, competition, real-time data streams and carrot vs. stick, to see how technology is both driving consumer engagement and testing longstanding behavior change models.

Health 2.0 will also feature, in a very prominent way, employers and payors with a phenomenally staffed session, “Employers, Payers and the Great Health 2.0 Awakening.” This gathering will explore how employers and insurers – until now the sleeping giants of healthcare – are increasingly active in guiding people through wellness programs (they’re also collaborating on the infrastructure for new delivery models). Mark Bertolini, chairman, CEO and president of Aetna; and George Halvorson, chairman and CEO of Kaiser Permanente, will keynote the session. Talk about heavy-hitters!

Mark Smith, president and CEO of the California Health Care Foundation will present the opening keynote at Health 2.0, discussing how healthcare can be better – and cheaper. Closing the ring of the healthcare circle, there will be both pre-conference and main-stage sessions, with patients sharing their stories of coming together and taking a leading role in activism, changing both healthcare and healthcare policy.

Finally, permeating the entire event will be Health 2.0’s hallmark Developer Challenge event, held from 12 p.m. Saturday, September 24 to 4 p.m. Sunday, September 25. With more than 20 online challenges and six Code-a-thon events across the country throughout the year, 2011 is the year that the challenge model has brought true innovation to healthcare. The Health 2.0 Developer Challenge continues the trend with both HHS and private sector challenges. The winners will be presented in a separate session on Monday.

This year’s conference promises to be the best yet. Props to Health 2.0 for keeping an active pulse on the marketplace and bringing key players from every vital niche to the table.
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