Can Digital Health Disturb the Healthcare Status Quo?

By Sarah Wachter, Knowledge Contributor

Digital health is a nascent field that uses social media and smart phones to help patients keep better tabs on their health and manage their diseases. It can also help the healthcare industry to cut costs and improve treatment. Silicon Valley inventors in digital health are seeking out seed funding to help them grow and scale.

When Halle Tecco started seed accelerator Rock Health in 2010, she wanted to help to narrow the deficit in the amount of brainpower, venture capital and IT talent being put towards solving the world's pressing needs for more and better healthcare. She wanted to mobilise the potential of technology to revolutionise healthcare as the sector moves from a focus on illness to a focus on prevention; from relying on doctors to a team-approach with the patient well-informed and at the centre of the decision-making.

A keynote speaker at the fifth INSEAD Healthcare Alumni Summit in Zurich this autumn, Tecco told INSEAD Knowledge on the sidelines of this event, "There is a huge arbitrage opportunity in healthcare, because we don't have as many entrepreneurs focused on this sector as, say, gaming or lifestyle. So there's this opportunity for really talented entrepreneurs."

Hurdles still to overcome

Many segments of the healthcare industry still rely on manual processes, such as hospitals for administering medications and tracking patients, so the potential to automate through technology is enormous, Tecco said: “It’s huge across the span of healthcare, from healthcare delivery to pharmaceuticals… to deliver better care, to speed up research.”

“There’s a lot of things that technology has done for other industries that we’re just really starting to integrate into the healthcare space,” she adds.

Rand estimates that full uptake of IT systems could reap US$77 billion in efficiency savings, while the use of IT technology by hospitals in 2012 doubled in just two years. In one of the fastest-growing segments of digital health - remote patient monitoring - consultancy McKinsey predicts mobile delivery of health information has the potential to become a US$60 billion market.

Incubating startups

Enter Rock Health, a for-profit startup incubator that focuses on Internet and mobile startups. It uses an open application and highly competitive process that takes classes of startups, each made up of small teams. The company provides funding, mentoring, office space and services, training and events. So far, Rock Health has backed more than 60 digital health startups.

The startup selected by Rock Health for a class gets access to advice from a network of top experts from technology to financing to healthcare. Rock Health makes a seed investment in the startup in exchange for equity. The business model is to generate venture-style returns, not fees or rent.

After the initial phase, a company ‘graduates’, presenting its startup to potential investors. Potential investors who are involved with Rock Health include angels, such as technology guru Esther Dyson, and venture capital firms that target transformational technologies, micro-cap investments, and entrepreneurs.

Even as funding wanes for some traditional healthcare segments, such as medical devices, venture capital in digital health is set to triple in two years. Tecco reckons it will reach US$1 billion this year.

Enter Big Data

[video:http://www.youtube.com/watch?v=rWZN8abDqA0 width:300 height:169 align:left]Some of the hottest segments, she said, include ways to improve the management of hospitals through electronic health records, harnessing the potential of big data - such as to improve clinical research and standardise health records; and for wellness services, such as SMS reminders on fitness goals, or capturing all a patient's records from insurance claims to lab tests to prescriptions.

Tecco gives two examples of recent Rock Health graduates that she says have the scope to disrupt traditional approaches. Kit Check uses RFID (radio frequency identification) tagging technology to track the restocking of medical kits in hospitals, or 'crash carts', which contain life-saving medicines and equipment. The new technology would replace barcodes, that don't always flag when a given drug has expired (up to 20 percent of these items are out of date, according to news reports). Scanning kits is time consuming and costs hospitals an estimated US$2 billion a year The Kit Check system takes seconds to identify items to be restocked or replaced, reducing the possibility of human error that ultimately would save lives. Now 16 hospitals use the new system.

The second potential disruptor is Omada Health, the first online diabetes prevention programme for the public. Called Prevent, it takes online a program used by the U.S. National Institutes of Health, which has been shown to reduce the risk of diabetes by 58 percent through diet, exercise, and behaviour changes. The 16-week coaching programme divides participants into groups of 12, which function like micro-social networks, and a public forum is presided over by a coach who gives weekly lessons, while a wireless transmitter-equipped scale, a pedometer, and a food journal track results.

Hot jobs

All this entrepreneurial activity is one reason why the number of health IT jobs in the last decade in the US is expected to grow 20 percent, estimates the U.S. Department of Health and Human Services.

With such a rosy outlook for the job market in digital health, Tecco has a message for INSEAD MBA students: consider the field for your next career move, and start preparing for it now. Her advice: take courses on strategy and business development. "It's important to help digital health companies forge partnerships to grow and scale," she said.

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