

Case Presentation: Converging Technologies In Health Information – Entrepreneurial Opportunities: The \$40 Billion Stimulus and Beyond

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On November 17, 2009, an impressive audience of 244 attendees in the Salk Institute Auditorium in La Jolla participated in the MIT Enterprise Forum of San Diego case presentation moderated by **Mike Murphy**, CEO of Sharp Healthcare. Panelists were **Michael Doyle**, President/CEO, Medsphere Systems; **Charles Gropper**, VP of Research & Development, CardioNet; **Vik Kheterpal, M.D.**, Principal, CareEvolution, and **Tim Wollaeger**, Managing Director, Sanderling Ventures.

This month's case was a special presentation of the billions in government stimulus spending identified for Electronic Medical Records (EMR) or Electronic Health Records (EHR), the current related activities, and potential remaining opportunities.

Most of us have experienced the challenges of managing our own personal EMR in one way or another. Whether those records were transferred, lost, or worse yet released to the wrong individual or organization, most of us fully understand the opportunities: lower cost, tighter security and most importantly, better health care.

Evolving technologies in the collection, management and secure dissemination of personal health information combined with a \$40 billion checkbook would appear to provide the ingredients for a straight-forward fix, and yet the challenges are numerous:

- There are many participants in the end-to-end process, from patients to doctors, hospitals to small local offices, government regulation, insurance companies and more.
- The needs of the different participants are often in direct contrast of one another (hospitals versus small Doctor's offices and insurance companies versus government regulations).
- The existing technology infrastructure is highly complex and disparate.
- The information being handled is most sensitive and therefore speed of access must be balanced with security.
- Much of the information is visual, such as x-rays and other images, thus the presentation of the information must be addressed.
- The standards for collection of textual data is very difficult to apply, e.g. one person's 'throbbing', may be another person's 'crushing'.

Mike Murphy started the discussion with a summary of the current Health Care Information Technology situation of which some of the key points are:

- The government's \$40 Billion stimulus funding under the Health Information Technology for Economic and Clinical Health (HITECH) legislation will make funds available starting in 2011 (although costs are to be incurred sooner) based on doctors' and hospitals' "meaningful use" of electronic records.
- Twenty of the forty billion will be executed through greater reimbursements, and those organizations that do not use EHR, will be subject to lower reimbursements.
- The term "meaningful use" is to be fully defined by December 31st, 2009 but general definitions include:
 - that by 2011 the outcomes of the systems must include the ability to capture and share electronic health records,
 - and by 2013 the outcomes of the systems must include advancing care support and clinical decision making.
- "Certified" systems are to be defined by 2011, but instead of focusing on functions, the definitions are to focus on "outcomes" from the systems.
- Health care reform is targeting \$400 billion in cost reduction.

Michael Doyle related that Medsphere is leveraging the government's \$8.5 billion investment in the VistA electronic health record system. As an open source application developed for the Veterans' Administration (VA) with leading functionality in the EHR arena, Medsphere's customers get the system for free, but pay for quarterly maintenance fees and commit to sharing any customizations developed by them, so that Medsphere can then include those customizations in future releases.

Regarding regulation, Timothy Wollaeger and Charles Gropper explained that when Medicare recently reduced the reimbursement for one of CardioNet's products by 35%, the company was significantly impacted, highlighting the challenges of protecting both consumers and corporate innovation. Dr. Kheterpal then drew attention to the recent discussions around mammograms at age 50 rather than 40, asking women in the audience if they are willing to risk their health; after a brief silence, Timothy Wollaeger added "would you feel the same way if you had to pay for the tests yourself?"

Regarding opportunities for entrepreneurs, the panelists agreed that although it is too late to start an EHR company today, there are still potential opportunities, such as how to:

- Fill the real or perceived gaps in how some, or many, doctors feel the use of EHR:
 - will slow them down;
 - create greater malpractice risk;
 - create significant privacy compliance risk,
 - and adversely impact the “personal touch” of doctor-patient interaction.
- Achieve interoperability between different systems, especially in light of the complexity of health care language.
- Leverage the increasing use of EHR for the greater good without invasion of privacy.
- Incorporate technology evolutions, particularly new devices for collecting information remotely where and when medical issues arise and not just after-the-fact at medical facilities.

During the open question and answer period, there were comments about the ability to apply standards in health care language, the criticality of security, and the overall opportunity for significantly improving healthcare. In addition, a question about Certification bodies resulted in comments from the panel that instead of just one certification body, several organizations are applying for the ability to act as certifying bodies, which the panel agreed will be necessary for keeping up with the more rapid evolutions and broader use of systems for EHR going forward.

Overall, it was an exciting session with passionate discussions that emphasized the challenges of balancing cost, consumer protection and innovation.

The MIT Enterprise Forum is a non-profit educational organization with 25 chapters worldwide. The San Diego chapter seeks to educate entrepreneurs in an informative and entertaining environment in front of a diverse audience of San Diego business leaders and technologists, as well as capital and service providers. The local programs are managed by CONNECT.