CHANGING THE CONVERSATION IN HEALTHCARE

INDUSTRY STRATEGY GUIDE

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UNSTOPPABLE INNOVATION
IN COMMUNICATIONS

An extraordinary era of innovation in communications is sweeping across the consumer world — and the explosive growth in the use of social media, mobile devices, smartphones, tablets and video is changing how we share information and communicate with each other. This is having a profound impact on industries across the board — and on the healthcare industry in particular, where it stands to revolutionize the delivery of patient care.

However, these consumer-driven innovations have yet to permeate the healthcare industry in a structured way, and instead they are arriving in a disconnected and uncoordinated manner. For example, while there are smartphone applications being developed to help doctors diagnose patients while they're on-the-go, there isn't a single, uniform strategy to support such mobility within the hospitals to boost productivity and reduce inefficiencies, while also maintaining security.

In today's connected world, this represents a missed opportunity for healthcare professionals and administrators who could be leveraging these consumer-driven innovations for greater benefits. Quite simply, it's time to Change the Conversation in healthcare in order to help doctors, nurses and other medical professionals to positively interact with patients and deliver care. The bottom line results will be improved patient care and outcomes, increased clinical staff productivity, a significantly better overall patient experience, and reduced costs.

A Connected Hospital Approach Changes the Conversation for Improved Patient Care

The consumer-driven innovations in mobility, social media and video expose the inefficiencies in communications and processes, and open up a new world of opportunities for hospitals to drive down costs and improve quality of care. Most hospitals today are characterized by siloed work processes, a lack of cross-process integration and a distinct mix of work types, plus they lack formal strategies to support these new innovations in communications.

Most hospitals today have either not embraced these newer ways of communicating or, if they have, they have not embraced them with a definite strategy and plan to take full advantage of the wide range of benefits, such as adding speed and functionality to different types of hospital communications and processes. As a result, there is still a heavy reliance on inefficient processes, characterized by traditional paper-based records, which reduce productivity and increase the disconnect among caregivers.

While e-mail is used within hospitals, it isn't always ubiquitous among clinical staff, such as affiliated physicians in outlying regions in the United States. In addition, e-mail use violates the Health Insurance Portability and Accountability Act (HIPAA) regulations if used for communication outside the care center. And, although many hospitals are adopting electronic medical records, there is no form of integrated communication within most care centers. Thus, it's imperative to implement a truly connected network for hospitals and medical centers where a patient's records can be pulled up from any location, on any device and anytime, to boost quality of care.

- **SOCIAL MEDIA** – Over 34% of consumers now use social media to search for healthcare information; surgeons use twitter to tweet live procedures; and there is an increasing use of social media to communicate in a crisis[1]
- **MOBILITY and SMARTPHONES** – Over 72% of US doctors use smartphones[2] today, a figure that is expected to rise to 81% in 2012
- **VIDEO** – The variety of usage in healthcare is exploding – from telemedicine, medical training, and live surgery demonstrations to digital signage for hospitals. At the same time, health-related videos are the sixth most popular video category online[3]

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[1] Social Media and Healthcare, http://www.toprankblog.com/2010/01/social-media-healthcare-marketing/
[2] Manhattan Research's Taking the Pulse Report, http://mobihealthnews.com/7505/72-percent-of-us-physicians-use-smartphones/
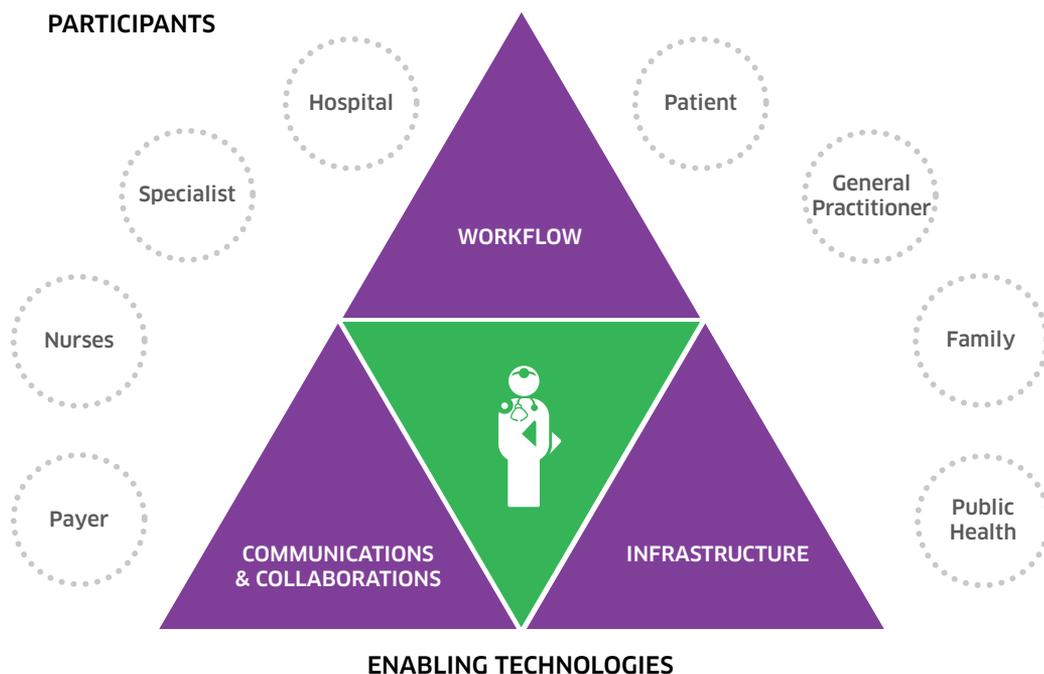[3] Google & OTX, Health Consumer Study, December 2009

Healthcare providers need to address the complex challenge of embracing strategies to help them harness mobility, video and social media. They need to balance their mandate to provide high-quality healthcare with the realities of having to control costs and serve more patients. All of this is accomplished by implementing a Connected Hospital.

A Connected Hospital consists of a robust, interconnected network that provides holistic support for mobility, video and social media applications so that a member of the Connected Hospital community can be supported through all stages of healthcare provision: preventative medicine (wellness), acute care, and chronic disease management. By implementing a Connected Hospital, general practitioners, community-based clinicians and other health professionals will be able to access and contribute anytime, from anywhere, using any device, thus helping to improve the quality of patient care with better outcomes and lower costs.

The pyramid below represents the enabling technologies required to Change the Conversation for the different participants in the healthcare sector. The challenge in healthcare is to enable easy interaction between healthcare professionals and patients at the right time, with the right information and the appropriate level of human interaction. Effective conversations are typically personal, transactional, experiential, expressive, succinct, empowering, emotional and educational.

To deliver more effective conversations in healthcare, providers should look at technologies across three key domains: Infrastructure, Communication & Collaboration, and Workflow. These enabling technologies help establish a Connected Hospital across all of the different participants in today's healthcare industry.

PARTICIPANTS

Hospital

Patient

Specialist

General Practitioner

WORKFLOW

Nurses

Family

Payer

Public Health

COMMUNICATIONS & COLLABORATIONS

INFRASTRUCTURE

ENABLING TECHNOLOGIES

THE CONNECTED HOSPITAL CAN BE ESTABLISHED BY THE FOLLOWING THREE STRATEGIES:

Strategy 1: Innovate with proactive patient engagement

Patients are increasingly important participants driving innovation in healthcare, and the innovation in communications and social media is changing the way patients expect to interact with their doctors, caregivers, nurses and other members of the clinical staff. What's more, this can have repercussions for a hospital if those expectations are not being met. For example, when a hospital's disconnected, siloed communication system results in what a patient perceives as inefficient interactions or even sub-standard care, it leaves an unfavorable impression of the hospital in the patient's mind. Whereas before the patient may have quietly complained to their inner circle of friends or family, today the disgruntled patient can instantly and loudly communicate their dissatisfaction to countless numbers of people via text messaging or Twitter. Therefore, it is imperative to optimize the patient's experience throughout the cycle of care — before their visit to a hospital, during their time at the hospital, and after the visit has concluded.

BEFORE THE VISIT: According to an NCR 2010 study on the use of multi-channel self-service in the healthcare industry, 79 % of respondents said they are more likely to choose a healthcare provider that allows them to manage interactions — such as appointment scheduling, registration and bill payment — over the Internet, on a mobile device or at a self-service kiosk.

This same study identified other areas where patients would like to interact via online and mobile channels, including: pre-registering for appointments (64 %); accessing lab results (60 %); obtaining pre-appointment instructions (58 %); sending and receiving secure messages with their healthcare provider (48 %); and receiving medication reminders (47 %). The benefits of offering these interactions are convenience and simplicity of use for the patients, as well as a revenue upside opportunity for the hospitals by proactively reminding patients about annual flu vaccines and up-selling newer services. In addition, periodic reminders about such things as annual medical checkups can be set up, thus reducing chances of an illness becoming chronic.

Providing a seamless experience across all channels ensures that patient interactions are as consistent and efficient as possible, which represents a win-win situation for providers and patients:

- **Positive Patient Experience** – Intuitive self-service options help patients complete administrative tasks more quickly and conveniently and receive timely and accurate information. Improving the efficiency of registration is a key patient satisfaction metric on Medicare surveys. In addition, tweeting emergency room wait times or availability of vaccines are big contributors for a positive patient experience.

- **More Efficient Use of Staff** – Because front-office staff and nurses spend less time completing paperwork when patients receive and complete forms online, these professionals can spend more time on patient care. A more efficient registration process allows greater throughput and productivity for back-office clinical staff.

- **Decrease Costs** – Online communication can reduce the cost of preparing and mailing statements, pre-procedure instructions and lab results — and appointment reminders sent via the patient's preferred communication channel decrease no-shows for appointments.

AT THE HOSPITAL: During patient visits to the hospital, there are numerous opportunities to transform the experience into one more aligned with the hospitality industry in order to drive overall satisfaction. Examples of transforming the experience in this way include:

- Digital signage in hospital common areas, waiting rooms and healthcare product outlets containing educational content, advertising and visitor's information

- Digital signage for general information kiosks with tailored content to each individual screen

- Social media engagement – For example, if a patient is tweeting from a hospital about poor customer service, providers can monitor and enable the customer service staff to take immediate action on potentially important interactions

- Proactively informing patient's families about the status of their medical procedures; for example providing updates about a patient's surgery progress or stage of childbirth and delivery

- Customized educational and entertainment content delivered to the patient's bedside and/or mobile device

Transforming the traditional hospital experience to a more hospitality industry-inspired experience for patients improves overall satisfaction and enhances the brand of the hospital.

AFTER THE VISIT: Research has proven that care costs are reduced dramatically if there is periodic monitoring and 24/7 information provided to remote, chronically ill patients after they have been discharged from a medical facility. Telemedicine leverages communication technologies to enable healthcare providers to interact with and monitor patients remotely, thus extending existing service delivery models to improve access and quality of care. It also enables better collaboration between doctors, nurses and patients to ensure expertise is being shared across the Connected Hospital.

Remote patient monitoring (RPM) helps meet the challenges of an aging population who face an increase in chronic diseases such as diabetes, hypertension, congestive heart failure, and chronic obstructive pulmonary disease. In addition to RPM, multi-channel post-discharge follow up services — such as sending automatic reminders to take medications or change dressings, or to schedule follow-up visits — have a huge impact on improving quality of care and reducing costs.

Providers, patients, and third-party payers all reap the benefits, including:

- **Greater Access** – RPM helps providers serve more patients by eliminating the number of home and office patient visits. RPM also extends services to patients in remote or rural areas that are particularly vulnerable to increasing shortages of physicians and specialists.

- **Quality of Care** – RPM offers reliable data collection and real-time information sharing across the entire care team to facilitate more timely and informed treatment decisions. The monitoring process also improves continuity of care and encourages patient compliance with prescribed therapies.

- **Cost Reduction** – RPM can lower healthcare costs by: decreasing unnecessary patient and provider travel; reducing acute and intensive care through proactive management of chronic conditions; reducing office and emergency room visits; and eliminating the need for homecare nurses.

"Telehealth, an emerging technology that will one day be used by all physicians and patients, increases access to care, reduces overall healthcare costs, empowers patients to take an active role in their health, and improves the quality of care."

Ovum
Communications as a Strategic Resource in Healthcare

Most of the Telemedicine trials and deployments today are for relatively small populations. However, contact center and communication technologies can enable a business model whereby health providers can also deploy Telemedicine solutions in large population groups — such as a single doctor monitoring over 10,000 patients supported by a team of nurses and health coaches, with positive ROI and enhanced patient care and satisfaction.

Strategy 2: Enable mobile, process-driven collaboration for caregivers

The growth in mobility, social media and video offers numerous opportunities for caregivers to be more efficient and effective in their communications. Context-based collaboration that's multi-party, multimedia and multi-channel allows healthcare teams (including: general practitioners, hospitals, nurses, ambulance workers, pharmacies, laboratories, mobile clinicians, and private or public payer organizations) to consult and collaborate across any media and any device to efficiently diagnose and treat patients, communicate with patients and their families, and avoid medical errors.

Changing the Conversation to patient-centric dynamic communications is a strategic asset for successful healthcare transformation with the following benefits:

- **Shorter Treatment Cycles** – Decisions happen faster because healthcare teams can communicate smoothly and get access to patient information when and where they need it.
- **Protection of Clinical Investments** – Digital assets and workflows are appropriately accessible even during unanticipated emergencies.
- **More Time for Patient Care** – Effortless communication allows healthcare providers to focus on their passion — delivering quality healthcare to their patients.

Improving Workflow

As we've discussed, traditional hospital work is characterized by siloed work processes, a lack of cross process integration and a distinct mix of work types. For example, while nurses are primary caregivers, they have to spend a considerable amount of their time on performing administrative tasks such as patient care coordination.

According to the Journal of Healthcare Management (July-August, 2010), hospitals in the United States incur economic waste totaling $12.3B from three primary contributors:

- 7% due to physical communication latency totaling close to one billion dollars
- 40% due to nurse communication latency totaling close to $5B
- 53% due to patient discharge latency totaling over $6.5B

Reducing this economic waste represents an important opportunity for mobile communications and process-driven collaboration in healthcare to improve efficiencies and reduce costs. Implementing a solution that reduces human latency in workflows and improves team/group collaboration delivers patient-centric outcomes in healthcare and reduces communication latencies. In addition, transparency is improved when monitoring work tasks to completion, and clinical staff job satisfaction greatly increased.

Strategy 3: Establish a Robust Network Foundation

Network "connectivity" within the healthcare premises should never fail; it's considered the oxygen of healthcare. One of the essential strategies is to enable all-around connectivity that is reliable, secure and ubiquitous.

Ubiquitous connectivity is required throughout the facility in order to provide reliable, secure blanket coverage for all healthcare providers, devices, patients and visitors while delivering knowledge and care to the patient bedside. In addition, application-aware networking will provide the quality of service and availability required for the numerous applications running on the hospital system network such as: PACS, EHR interactions, voice, medical telemetry, video and so on.

Hospitals are also increasingly implementing wireless technologies and systems to improve operational efficiency and to replace paper-based techniques with mobile applications. Forrester Research reveals that 79% of healthcare organizations are rolling out new mobile applications and services for employees — about double the implementation rate of non-healthcare organizations.

Unfortunately, radio frequency (RF) interference is a byproduct of increased wireless operations. Wireless spectrum management allows hospitals to identify, classify and locate devices that cause interference so they can take corrective measures to resolve spectrum issues. Properly managing the wireless spectrum helps:

- **Solve the Connectivity Challenge** – Once interference is identified and mitigated, wireless devices and mobile applications work in the hospital as intended.

- **Share Information and Resources** – Reliable wireless transmission of data to/from a centralized database increases accuracy and raises the visibility of the data to those who need the information.

- **Drive Meaningful Use of Electronic Health Record (EHR) Implementations and Increase the Speed of Healthcare** – The ability of hospital staff, clinicians and caregivers to input and view patient data from anywhere at any time, increases the quality and speed of healthcare.

- Enable a high quality user experience with reduced complexity with the Application Fluent Network.

USING GENESYS iNTELLIGENT WORKLOAD DISTRIBUTION TO AUTOMATE X-RAY PROCESS FLOW AT HOSPITAL IN ASIA

During the design phase of filmless electronic X-Ray, a need arose for a communications system to automate messaging to radiographers, and to better handle the escalation process across healthcare professionals. The key objective was to un-clog the process from a complex set of communication steps, latency and delays to getting the right request to the right resource at the right time while enabling the core function of health to be the appropriate priority and focus. Genesys intelligent Workload Distribution was used to capture, distribute, manage and report the X-Ray process flow within the hospital. Location information was incorporated to tailor the work distributed, and to provide notifications and escalations to help minimize interruptions and reduce latency.

CONCLUSION

In today's connected world, innovations in mobility, video and social media are changing how caregivers and patients communicate with one another, and how caregivers deliver outstanding care.

To harness the opportunities presented in this paper to improve access, reduce costs and deliver superior patient care, hospitals must Change the Conversation by reducing siloed information and processes, and implementing a Connected Hospital approach that consists of a robust, interconnected network to support all of the innovative new applications and channels.

This approach consists of enabling a seamless experience across all channels to: ensure efficient patient interactions; facilitate context-based collaboration that's multi-party and multi-channel to allow healthcare teams to consult across any media and device to efficiently diagnose and treat patients; improve workflows and efficiencies, and reduce human and communication latencies to deliver patient-centric outcomes; and establish application-aware networking that is reliable, secure and ubiquitous.

The bottom line is that healthcare professionals and hospitals must proactively define and implement strategic solutions to today's challenges in order to succeed and thrive into the future. Those that are able to leverage consumer-driven innovations and implement a Connected Hospital approach will be able to solve connectivity challenges, share information and resources, and ensure more efficient use of staff while decreasing costs.

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