

Working in Teams, Unit 9b

**Expanding Value:
Tools for Collaboration Across
Time and Space in HIT-Related Activities**

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High Definition Videoconferencing for Healthcare

- Healthcare is clearly the most demanding application for videoconferencing.
- Doctors are able to see and hear as clearly as if they are there in person.
- Videoconferencing allows the physician to look inside an ear canal, view a radiology film, and see vivid, true colors to determine a patient's well-being.



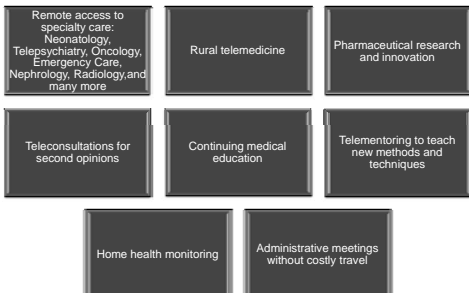
Image: <http://www.oar.net/press/releases/2009/images/hvrc.jpg>

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2

HD Video Conferencing Solutions and Applications



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3

INTEL Health Guide



The Intel Health Guide is a comprehensive, next-generation remote health management (RHM) solution that combines an in-home patient device, the Intel Health Guide PHS6000, with the Intel Health Care Management Suite, an online interface that allows clinicians to monitor patients and remotely manage care.

Remote Health Management (RHM)

The Intel Health Guide is intended for use by patients under the guidance of a healthcare professional and is not intended for emergency medical communications or real-time patient monitoring.



Image: <http://www.intel.com/corporate/healthcare/remotehealthguide>

Global Conferencing

Global conferencing can connect individuals and teams virtually in every country and territory around the world!



Image: <http://holfreconferencecalls.org>

Advantages of Global Conferencing

- Used for scheduled and recurring conferences.
- Web-based presentations, demonstrations can be done easily with large audiences.
- Every participant can hear, see and edit the same content at the same time.
- Web conferences can be created in an instant with global colleagues.



<http://www.thetechcoop.com/wp-content/uploads/2010/07/tra-right-top-ling.jpg>

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7

Advantages of Global Conferencing

- Decisions to share screens can be made spontaneously
- Join in conferences without leaving personal workspace
- Trims costs and boost efficiency
- Employees save time and reduce travel



http://www.keyzone.com/images/VideoConferencing_01.jpg

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8

Future Tools/Trends for Collaboration Across Time and Space

Social Media

- Social media has invaded health care from at least three fronts: innovative startups, patient communities and medical centers.
- The **Health 2.0 movement** has nurtured dozens of startups with creative concepts to revolutionize health care: tools from vertical search and social networks to health content providers and wellness tools.

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9

Barriers/Challenges to Social Media

Hospitals and medical practices are risk adverse and generally cautious about new technology trends without clear value.

There are questions about whether social media use by hospital employees is a waste of time.

Does social media present risks of violating HIPAA or leaking proprietary information?

Hospital IT departments are concerned about security risks, such as the use of tinyurl.com, which can mask malicious Web sites.

Privacy concerns, particularly the vulnerability of social media accounts, are also cited as a reason to avoid social media.

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10

Activity

Search the Internet or other sources of accessing media and write a one-page paper on a type of social media currently being used in healthcare today.

Highlight the type of social media, the purpose, the benefits, and challenges you see with the use of this communication tool.

Summarize how this tool can assist the healthcare team to collaborate across time and space.

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11

Current Trends to Watch in Social Media in Health Care

- Managing a conversation;
- Engaging e-patients;
- Remote access to personal health records; and
- Social media for providers.



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12

e-Patients

- E-Patients are defined as those "who are equipped, enabled, empowered and engaged in their health and health care decisions."
- E-patients can provide feedback not only on improving hospital Web sites but also as participants in quality improvement within the health system.



Image: <http://www.ucdmc.ucdavis.edu>

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13

PHRs and Online Communities

- Some individuals are talking online about their **Personal Health Records** and sharing this information within the health community.
- Patients share similarities between online patient communities.



Image: <http://www.free-press-release.com>

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14

Future Evolution of Social Media

- Social media is here to stay in health care, but it will evolve quickly.
- Patient engagement will continue to characterize this change.
- Organizations will use social media tactically within their overall marketing and communications efforts -- videos and mobile technology will likely dominate these approaches.



Image: http://dannybrown.me/wp-content/uploads/2008/10/social_media.jpg

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15

Future Evolution of Social Media

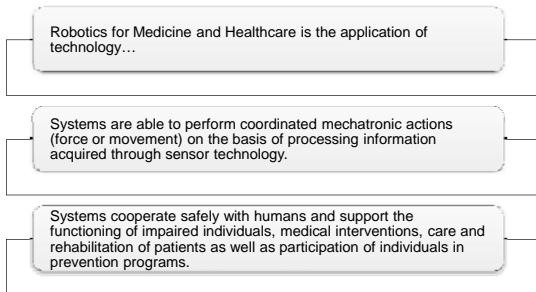


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16

Tele-health Robotics



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17

Examples of Tele-health Robotics



Intelligent Prosthetics

Smart Medical Capsules



Robotised Surgery

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18

Robotics Considerations

Robotics hold the promise of addressing some major healthcare issues.

Robotics in healthcare is in its infancy – industry, government and research can still exert influence.

There is a need to bridge the difficult transitions from laboratories to trials and from trials to regular healthcare practice.

Systematic support to research is needed for progress to be made.

Ethical and legal problems should be an integral part of any research program in this field.

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19

Performance Dashboards For Healthcare

- Interactive Performance Dashboards for Healthcare are designed to address this challenge by utilizing best practices in data visualization.
- Performance Dashboards allow healthcare professionals to focus on what is important.
- Customized Performance Dashboards give healthcare professionals the ability to absorb key information about hospital clinical and financial performance at a glance.




image: <http://static.howstuffworks.com/igitt/dashboard-display-1.jpg>

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20

Performance Dashboards Services

Assessment of the organization's source systems, data and readiness for enterprise-wide adoption of Performance Dashboards

Planning the project with hospital staff

Building and documenting the data warehouse

Proof of Concept and Production Dashboards and Scorecards

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21

Types of Performance Dashboards

High-end Performance

Medium-level Performance

Open-source

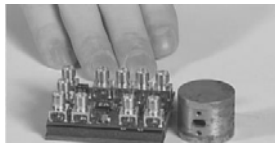
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22

Video Sites for Medical Professionals and Patients

- Video sites for medical professionals and patients are becoming more available for the medical team to actually demonstrate a surgical procedure that the patient may go through at the time.
- Video sites are also being used to anticipate what changes may occur with the surgery, e.g. plastic surgery involving a nose reconstruction.



EXAMPLE: Palm-sized cancer testing device. (Image courtesy of the Boston Museum of Science)

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23

Future Face of Healthcare Field and Team Collaboration

- E-health is an emerging field in the intersection of medical health informatics
- Virtual health care teams are a growing phenomenon that consists of health care professionals who collaborate and share information on patients through digital technologies.
- Virtual organizations are merging together to create a platform for information access and sharing.



Image: http://news.cnet.com/telemedicine_550x367.jpg

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24

Summary

With HIT teams, one can see the challenges of learning to collaborate virtually and to develop these emerging technologies so that the healthcare team and patients can gain from the use of these emerging virtual tools.



The focus of all these emerging technologies revolves around the patient receiving a comprehensive treatment from all treating parties.

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25

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26

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Version 2.0/Spring 2011

27

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