



HealthbizIndia News

Sobo becomes new destination for corporate health players

So long, Parel has been the address of the best public hospitals in Mumbai. Now, Global Hospital will add a corporate edge to the lane that leads to the 1,800-bedded KEM Hospital, the 500-bedded Tata [more..](#)

Naqpur hospital ties up with US firm

Cover Story



Recent and Upcoming Trends in Teleradiology

By : Dr. Arjun
Kalyanpur

With the approach of this New Year, we have stepped into another year which will be filled with latest advances and technologies. There are a host of recent and upcoming trends in Teleradiology that we will witness this year. Many of these have been and are applied within our own organisation and so I have had the good fortune of using them and/or observing their value. All of these trends, in my opinion, represent paradigm shifts within what is itself a relatively new industry, which makes for exciting stuff. And of course, like all things new, all lend themselves to controversy and debate, before we eventually reach the state of universal appreciation.

The cloud

Arguably the most rapidly evolving recent phenomenon, and one that impacts most industries, teleradiology being no exception, is that of the internet cloud. What this translates to in teleradiology, is that patient images are leaving the server rooms of hospitals and beginning to reside on virtual networks of datacenters.

This trend allows for 3 solid benefits a) extreme redundancy – as the images are distributed over a virtual network of servers which may be spread over different geographies, there is no longer the risk of the hospital PACS server “going down”, which has traditionally been a significant cause of loss of productivity in radiology departments worldwide b) decreased infrastructural costs – the cloud-based service can be utilized on a SAAS or a pay-per-use model, without high startup infrastructural costs and c) most important, universal access to image data, without having to penetrate individual hospital firewalls, while still being compliant with HIPAA security measures. What this means is that physicians can have more direct and seamless access to their patient’s images, and the number of duplicate and unnecessary scans that are performed today can be drastically reduced, especially when patients move, or are transferred from one healthcare facility to another.

Workflow

The teleradiology software of the future (example TeleradTech’s Radspa) has transcended the mundane PACS and RIS and entered the rarefied stratosphere of workflow, i.e. it has gone beyond the routine image viewing and reporting features and incorporates new intelligent tools that route images seamlessly across networks to the most highly qualified radiologist, collaboration tools that allow a radiologist to interact online with a clinician and show them the tumor on a CT or MR image in a virtual environment, and analytic tools that allow every productivity and quality measure in an organization to be tracked in real time mode. Also much more. Watch this space.

Mobile

The exciting new handheld devices with their high resolution screens lend themselves to teleradiology on the go. Of greatest value for busy neurosurgeons, cardiologists, oncologists etc, this allows physicians to quickly check their patient’s images while commuting, between consultations and even while on vacation, without having to drive to work and log in to a cumbersome workstation.

For radiologists too there are many evolving applications in the emergency arena, such as acute stroke and appendicitis, where mobile technologies can deliver benefit, as a host of presentations at this year’s RSNA (Radiologic Society of North America) meeting highlighted. Teleradiology is truly now in the anytime anywhere mode.

E-training

To rapidly increase the pool of trained radiologists and address the critical radiologist shortages that face us, drastic and innovative measures are needed and in our organization, e-training has proved to be one such game changer. We use a Cisco- based platform to connect our pool of 50 or so teleradiologists who are distributed around the globe into a virtual classroom that can be used to display powerpoint presentations, deliver lectures, or even run

videos. This is the educational tool of the future, with profound implications for healthcare education overall, not just in teleradiology, although given the virtualization and globalisation of teleradiology, this is where e-training delivers maximum bang for the buck.

Thin client 3D viewers

Enterprise access is a major trend shift in advanced visualization. Not too long ago, 3D viewing was performed by radiologists at a high end standalone workstation. Now, multiple thin client solutions are available that permit 3D postprocessing and viewing of medical images throughout the enterprise. This has the dual benefit of a) major cost savings, as the high cost of the high end standalone workstation is replaced by inexpensive thin clients connected to a central server. b) Using a thin client solution one does not need to route data back and forth in between multiple servers or workstations – all users can access the data directly, regardless of the physical location of the distributed servers.

This allows for more effective deployment of the radiologist and technologist workforce across the healthcare organisation, and combat staffing shortages, i.e. a single CT/MR technologist at one location can perform complex postprocessing maneuvers on image data from multiple scanners in multiple different locations that have been transmitted to a centralised server.

CAD

The crux of all teleradiology is the report turnaround time or TAT, and as we have seen, the quality of a teleradiology provider is gauged by how tight those times can be compressed, in the interest of enhancing patient care, while still maintaining the highest possible quality of interpretation. Tools that facilitate more speedy or accurate interpretation of images such as CAD, for example for pulmonary embolism or lung nodules therefore can potentially enhance the teleradiology reporting process. Such tools are still early in their development but this is very much a trend to look out for in the future.

The benefit of identifying and understanding a new trend is that it allows one to become an early adopter and thereby achieve a first mover advantage over one's competition. In this context, it is hoped that this article to some extent helps you, in the words of the legendary footballer Pele, to "go not to where the ball is, but to where it is going to be".

The author is the Chief Pusher/Radiologist at Teleradiology Solutions

[Share This With Others](#)

[Add Comment Here :](#)

Name

Comment

Designed & Powered By: - **Authentic Info Home Pvt Ltd**
© 2010. **healthbizindia**

Connect with us on 

Disclaimer: Health Biz India is an online magazine only. We do not deal in any other service/product under this name. Thank You.