Toward Realizing Telemedicine in Iran: Challenges and Recommendations

Ali Akbar Safavi  
A/Prof. of Systems and Control Engineering  
School of Electrical and Computer Engineering  
Shiraz University  
Safavi@shirazu.ac.ir

Abstract

The Impact of Information and Communication Technology (ICT) on our life shows that the future will be driven by a new environment that differs substantially from that of the past decades. Some of the features of this new environment are already apparent and provide insight into the new research and development directions that need to be pursued. For instance, the Internet and new communication media provide new possibilities for monitoring an object remotely, or in long-distance learning and computer-based self-tutoring systems. The Internet and computer networks have also proved to be powerful tools for distributed collaborative work.

Telehealth and telemedicine are examples of the impacts of ICT on our life. This has brought us new hopes for a better health and medical services to the public, particularly those in rural or distanced locations, and/or at disaster circumstances, and those in ambulances and on ships or other transportation systems.

Despite reasonable efforts of the Ministry of Health and Medical Education of Iran in last 10 years on developing the infrastructure for Telehealth and telemedicine in Iran, no strong foundation and experiences exist and there is a great deal of efforts to be made on this way. One simple solution could be to ask the Ministry to work on the basic rule and regulations and support the institutions and expert groups to develop and expand typical applications and introduce best practices on this field.

After a successful establishment of the first academic e-learning programs in Iran by Shiraz University in 2003, we are heading for a practical and sustainable development of a telemedicine and telehealth systems between Shiraz Mother and Child Hospital as the main centre with three other medical centres as:

- Shiraz Shahid Rajaee Hospital (A Trauma Hospital)
- Gerash Hospital (Gerash is a city in southwest of Fars Province of Iran with a 350 KM from Shiraz and about 41000 population.
- The Iranian Hospital in UAE (in Dubai).

A short report of this program and its objectives will be presented. We will also announce our readiness to expand these experiences and services to other cities, institutions and also our neighbouring countries.

Though the above report shows the possibility of incorporating ICT in telemedicine and telehealth, we will review some of the challenges already facing us and the public in invoking or expanding such applications. This includes:

- The cost and quality of the current communication media (Internet, Intranet, space technology, etc).
- The lack of powerful law and regulations and financial supports for developing such applications.
- The impact of political international bans on technology export/imports on improving public health and medical services.
- The needs for cultural and social programs for better acceptances of new technologies by the expert/public and better understanding of the cost/benefit of such applications.

As final remarks, some recommendations for a better collaboration among all the related experts and managers in Iran and abroad toward an expansion of such applications are provided.