The ISfTeH Newsletter is published quarterly for members of the telemedicine community to provide up-to-date information regarding current happenings in the international telemedicine and e-Health industry.

Feel free to share this Newsletter with business colleagues by forwarding it to your associates.

If you would like to submit an article or be added to our email distribution list, please email Aliana at asvecshak@amdtelemedicine.com.

Letter from the Executive Director

Dear Reader,

I welcome you with great pleasure to this issue of the ISfTeH Newsletter - the fifth since we relaunched the periodical in September 2011. For those of you who have taken a summer break - our colleagues in the north - we trust that you are back brimming with new energy and enthusiasm for the cause. As in the past, in addition to recounting important happenings in our eHealth ecosystem, I will take a prospective approach and look ahead to events that will leave their mark on our field of endeavor.

The meeting of the Global eHealth Ambassadors Program (GeHAP), hosted by the Gulbenkian Foundation and held at their premises in Lisbon on June 25, 2012, was a resounding success. As anticipated, five of the six ambassadors, Archbishop Desmond Tutu Chair, Dr. Emilio rui Vilar, Lord Nigel Crisp, Strive Masiyiwa and Peter Gabriel, were present, together with the entire Executive Committee of the ISfTeH and the European Commissioner for Health, John Dalli. Our thanks to the Giulbenkian, which again demonstrated the value of the partnership which underpins the GeHAP.

The star of the event was The Arch, who was his usual self - at once witty and pithy in his declarations. A fireside chat with Jorge Sampaio, former President of Portugal, moderated by a journalist, had the main auditorium of the Gulbenkian overflowing with live spectators, to the extent that additional rooms had to be set up for a live feed by video of the exchange. Press coverage in various media - print, radio, television, web - all contributed to sharing the event with those who were not there in person. The Gulbenkian Foundation newsletter carried a feature story on the event (in Portuguese) and our own
Join the ISfTeH

Are you heading a national telemedicine/eHealth organization?
Do you offer telemedicine products and solutions?
Are you doing research on telemedicine and eHealth applications and technologies?
Does your organization provide (or wants to offer) care services by means of telemedicine/eHealth technologies?
Are you engaged in healthcare policy?
If so, you may be interested in joining the ISfTeH network to expand your global reach or to learn from existing experiences and best practices.

Membership information is available here.

Or send an e-mail with your question or membership request.

Upcoming ISfTeH-Supported Telemedicine

Join Our Mailing List

The Executive Committee of the Society has since held a follow-up meeting in Zurich, Switzerland in early September, and the GeHAP Secretariat is hard at work on activities planned for the coming twelve months.

We eagerly look forward to the next major stop on the Society's global calendar, the 17th Annual Conference of the ISfTeH in Abuja, Nigeria on November 7-9, 2012. Preparations are in full swing for the event, the third Annual Conference of the Society to be held on the African continent. The theme this time is 'Making eHealth Work: Global Trend, Challenges and Opportunities'. The local organizers, the Society for Telemedicine and eHealth in Nigeria (SFTeHiN), are expecting over 700 participants to attend - manufacturers, suppliers, health care providers, insurers and representatives of government. Key regional organizations, among them the African Union Commission, the Economic Community of West African States (ECOWAS), and international organizations such as, WHO, ITU, and other UN systems sister organizations are expected as well. So, it should turn out to be yet another fabulous opportunity to share ideas and extend your networks. For more details, visit: www.sftehin.net.

I will end this letter with a few words about the upcoming elections to the Board of the ISfTeH. This marks the final stage in a phased transition of the Board, begun in 2010 - from an electoral process that saw all nine Board members elected once every three years, to one of continual renewal, with election of three Board members every year. Candidates for election have been asked to provide information on their background and achievements relevant to the exercise of their duties on the Board. We've always done that. This time they have also been requested to tell you, the electorate, their position on the issues of great import to our profession - a sort of manifesto of their candidacy. You, in turn, should take advantage of this occasion to make your voice heard, by exercising your right as a member in good standing of the ISfTeH. It is also your sacred duty to contribute to the attainment of the goals of our Society by electing the most capable team of your peers to oversee the running of the federation over the next few years.

I look forward to seeing your contributions to our newsletter. Such actions of participation in the life of the Society, no matter how small, are in keeping with the ideals of the ISfTeH - sharing of information and knowledge and building capacity for Telemedicine and eHealth globally. They also contribute to the spirit of Target 18 of the Millennium Development Goals - "in cooperation with the private sector, make available the benefits of new technologies, especially information and communications technologies".

Prof. S. Yunkap Kwankam
ISfTeH Executive Director

ISfTeH Meetings and Conferences

17th ISfTeH International Conference
Abuja, Nigeria

Novermber 7 - 9, 2012

17th World Congress
International Society for Telemedicine & eHealth
...making eHealth Work!
The annual ISfTeH Conference is held each Fall. Next Year’s ISfTeH International Conference (2013) will be held in Japan!
M-Care revolutionizes the way medical services are provided in Eastern Africa. M-Care’s goal is to deliver nation wide Accessible, Affordable, Quality medical care to its clients. Provision of Accessible, Affordable and Quality Care by M-Care has become reality by a smart integration of:

- our prepay membership programs,
- our 24x7 TeleConsultation Centre (TCC),
- our 24/7 Medical Centre
- a network of Community Clinics (Clinic-Q) (roll-out started),
- modern telemedicine technologies,
- data systems & services as well as
- our community care program

Our Vision
To become a Community Medical Service Provider which incorporates state of the art biomedical and telemedicine technologies to operate the Afya (Health) Network.

Our Mission
To deliver high quality medical care to our members. To minimize the need for unnecessary hospitalization. To provide doctors with telemedicine tools that allow them to closely monitor their patients online. Build, operate and train remote and rural clinics with telemedicine & biolab technology.

M-Care Network Operation

24 x 7 TeleConsultation Centre (TCC)
We provide our members access to a 24 x 7 TeleConsultation Centre operated by medical practitioners and accredited nurses. Our members can connect to our TCC by phone or online through voice and video chat and receive consultation and advice from our doctors and nurses. Using a video connection our members receive a personalised service that provides nearly the same confidence and comfort as physical visit to a doctor. This provides our members medical consultations at their home at lower cost without the
M-Care has partnered with E+ (Red Cross) and has ambulance coverage in major towns in Kenya. M-Care will respond to our members' emergencies any time, anywhere and if necessary evacuate them to their desired hospital.

24 x 7 Medical Services at Home
Individuals with health problems require close attention from qualified medical staff. To improve the quality of life for chronically ill patients and avoid frequent visits to the doctor, M-Care offers accredited doctors and nurses to care for its members at home. This service is in line with our vision to provide clients with high quality medical services at home and also makes it possible for members to avoid extended stays at the hospital. Our medical staff will work closely with members’ physician to respond to their day to day needs for recovery and rehabilitation and monitor their progress. We can provide:

- Doctors & accredited nurses for care at home.
- Telemedicine kits for online monitoring.
- Medicine delivery at home
- collection of blood samples at home and (online) delivery of lab test results

Outpatient Clinic Services
M-Care’s Titan House facility is equipped with a state of the art walk-in clinic. The clinic operates 24 hours throughout the week and is staffed with general practitioners and accredited nurses. Furthermore M-Care is rolling out a network of community clinics (Clinic-Qs) all over Kenya. Referrals can be made to a wide range of specialists where our members receive consultations and treatment at discounted rates.

Since all M-Care clinics are equipped with a lab and pharmacy, we provide patients access to a facility that saves time and provides quality service. Prescribed medication and/or lab test results can be delivered, by our courier service, at home to clients with a membership plan or at affordable rates to clients who have not subscribed to a membership plan.

Members receive reduced rates at all M-Care clinics, labs and pharmacies.

Community-Care Program
As part of M-Care strategy in building the Community Medical Network and Membership Services, M-Care will establish around each clinic community centres incorporating:

- Sports Care centre
- Art Care Centre
- ICT Care Centre

Telemedicine Services
View-Care
provides medical monitoring services for chronic patients through home kits. The kits installed at home are light, user friendly and are connected to our centre through the Internet or any mobile network. Our doctors at the
M-Care call centre can monitor and analyze the patient’s results in real time. The kits are used to monitor

- cardiac conditions,
- diabetes,
- hypertension
- respiratory and
- obesity

CliniQ - Care
Committed to serve the communities which we are living in and to expand medical care to remote areas, M-Care also offers special telemedicine kits for remote clinics. Most clinics in rural areas are not staffed with qualified doctors or the necessary equipment to examine and diagnose patients. M-Care, is transforming medical services in such areas through its telemedicine kits. These kits work similarly to the View-Care kits but are used for multiple users.

Web-Based Medical Services

- Get an online membership account
- See and edit your personal profile details
- View and print your medical history
- Access Medoctor (Online medical diagnostic decision support System)
- Post a request for medical second opinion from our doctors in Kenya and overseas
- Post request for special lab test
- Post a request for a Harambee (fund raise for special medical services)
- View and top up your “Medical Credit Facility” (MCF)
- Participate in medical forums

Other Services

- GeoCare: A personal device linked to our call centre, for road emergency cases.
- Second Opinion Services: For individuals seeking a second opinion on their medical diagnosis or results, M-Care can have your results reviewed by one of our doctors at our facility or by world-class specialists at our partner hospitals overseas.
- Medical Tourism: M-Care provides packages for individuals seeking specialized treatment and surgeries out of the country. This includes making appointment with the preferred medical provider, travel arrangements as well as accommodation. We are able to do this effectively using our wide network and affiliations with specialists and hospitals overseas.
A different Corporate Member will be spotlighted each quarter.

National Member Spotlight

Finnish Society of Telemedicine and eHealth

The Finnish Society of Telemedicine and eHealth (FSTeHS) with its more than 300 members is a communication forum for professionals from various fields of health care information systems and eHealth domain. Our membership base is a cocktail of researchers, developers and users, private and public sector as well as administration and financial sector. Equally important is the collaboration with the Finnish Technology Agency TEKES, the National Institute for Health and Welfare (THL) and the Association of Finnish Local and Regional Authorities as well as with professional organizations.

Background of Finnish telemedicine and eHealth
The Finnish Society of Telemedicine and eHealth was founded in January 1995, at a time when the use of information and communication technologies (ICT) was beginning in Finnish health care sector. Preconditions for telemedicine to beneficial existed: a sparsely populated country with 5 million inhabitants and long distances had just reached the era of digital mobile communications and public internet covering whole Finland.

Short history of FSTeHS
When founded, the aims of the society were twofold: 1) to promote population health through telecommunication and 2) to disperse expert knowledge within health care. Following these principles the society has slowly but firmly fortified it’s position as appreciated knowledge and expertise center in Finnish health care sector and increased the number of members, today more than 300 individual members, 35 corporate members and honorary members from four continents.

The main activity during past years has been the Annual Conference. FSTeHS has until now organized conferences together with 10 out of country’s 21 Health Care Districts, promoting local activity. In addition to those local fiveannual conferences have been held on boat cruising between Helsinki and Stockholm, activating Nordic co-operation by information exchange and visits to companies and hospitals.
While annual conference being our most important activity, we have also organized together with the Finnish Medical Association a national education session discussing the usability of medical information systems and together with the Finnish Social and Health Informatics Association a seminar of citizen aspects. As a scientific society we are a member of the Federation of Finnish Learned Societies and we publish our own journal, “Finnish Journal of eHealth and eWelfare” once again together with the Finnish Social and Health Informatics Association. The Journal is now entering its third volume.

Our representatives are in close collaboration with IHE (Integrating Health Care Enterprise) and European Standardization Organization CEN in efforts for finding more interoperability into our information systems. Our networking is extended into our closest neighbours like Estonia as well as a little further away into Japan.

Outlines of Finnish Telemedicine and eHealth Activities, Trends and Business Opportunities

Finland’s first experiments in telemedicine took place at the end of 1960s. Activities have grown each year and, already in 1999, over 200 telemedicine projects were registered in Finland, mainly in hospitals. There are now regular services in:

- Teleconsultation (emergency transport)
- Telediagnosis
- Telemonitoring
- Telelaboratory functions
- Videoconferences (telepsychiatry, teleophthalmology and basic/continuous medical education)

Digital radiology image transmission is a standard procedure in all major Finnish hospitals, particularly in imaging. Teleradiology is available at all of the five university hospitals and in most central hospitals. The number of teleconference consultations has increased since 2003, especially in sparsely populated parts of northern Finland where relatively few doctors cover large areas. Although teleconsultation is not a common practice, several pilot projects and experiments are underway. Growth in teleconsultation services is expected as new technologies develop and device prices fall. There are opportunities for Finnish and foreign players in videoconferencing devices. For example, although electronic and telecoms components and devices are mainly imported, Finland can ensure that designs are consumer focused and user friendly.

Overall, telemedicine is considered an efficient solution to overcome distance and it has a significant role in the Finnish eHealth roadmap.

In the field of eHealth, Finland has devoted much effort since the 1990s and, over recent years, has worked on various aspects of health information technology (IT). The development of a nationwide archive system (KanTa), connected to e-prescribing and personal health records, has been a major milestone in the Finnish e-health story. KanTa is based on the development of strong local municipality-based systems, brought together under a comprehensive national umbrella. Finland has shown a particularly early political commitment to e-health issues, making it well-prepared for e-health products and services. The national system is still under development but, when fully deployed, it will significantly change the Finnish e-health environment. Challenges remain, however, mainly in the areas of interoperability and the decentralisation of the healthcare system.

Finland is a small country which is strongly networked, especially within the EU, making it well connected to neighbouring countries. This also means that market trends in the sector are similar to those seen globally.

There are business opportunities in various aspects of e-health. For example, telemonitoring services are expected to grow rapidly, increasing the need for technology and components. Health-related services through web-based smart card identification will probably grow too, due to changes in law. Patients will also have a greater choice of service providers, boosting the
internationalization of web-based health services.

The few main companies in the electronic health record (EHR) market are well established. In fact the two biggest players, Tieto and Logica, have such a strong market positions that newcomers find it relatively difficult to enter the market. On the other hand, there are increased opportunities for collaboration in smaller niche areas.

Examining a single EHR software or nationwide system more closely, decision-support systems are being used by healthcare professionals and significantly improving care quality and patient safety. ‘Current care guidelines’, edited by Duodecim, the Finnish Medical Society, is used every day by Finnish professionals. In this easy-to-use tool, specific decision-support tools include information on drug interaction.

Moving from the provider to the patient viewpoint, the main trend is patient empowerment and the development of personal health records (PHR). There are already both public and private products on the market. Within the KanTa (National Archive system), the internet-based eView service for citizens is being developed. In the private sector there is Google Health, a major international player active in the Finnish market.

Activities of FSTEHS in a nut shell:
- development of professional expertise
- seminars, presentations, work shops, training courses and symposia
- publications (both printed and electronic) - membership journal

Finnish Journal of eHealth and eWelfare and annual national conference abstracts book:
- support academic research
- evaluation and statements of current issues
- collaboration with international organizations
- our communication network includes both national and international experts and organizations

Publications
Finnish Journal of EHealth and eWelfare, partly in English

Contact Information:
c/o Jarmo Reponen, Chief Radiologist
Raahe Hospital, PO Box 25
Raahe, Finland 92101
Email: Mr. Jarmo Reponen, Chairman of the Society: president@telemedicine.fi
Mr. Arto Holopainen, Vice Chairman of the Society: vice-president@telemedicine.fi
Website: www.telemedicine.fi

This national overlook is written by Mr. Raino Saarela, Senior Telemedicine Technology Specialist and Board Member of FSTEHS.

A different National Member will be spotlighted each quarter.
Frank Lievens was born in Ghent, Belgium on 02.03.1944. He obtained a Masters Degree in Economic and Diplomatic Sciences from I.C.H.E.C.-Brussels (Belgium) in 1967. In addition to his duties as the current Secretary-Treasurer of the ISfTeH, Frank is also the Managing Director of LIEVENS-LANCKMAN BVBA (Belgium) and AKROMED FRANCE (France), both companies involved in manufacturing and distribution of Medical Devices, having a worldwide network. He is also the Director of MED-e-TEL in Luxembourg.

Back in 1999, Frank became interested in Telemedicine via Home Care applications. He was involved in 2002 in the creation of MED-e-TEL, the International Educational & Networking Forum for eHealth, Telemedicine & Health ICT. The MED-e-TEL Conference takes place yearly in Luxembourg, Frank works together with his son, Frederic, who acts as International Coordinator and Dr. Malina Jordanova, responsible for the Educational Program. In September 2003, Frank Lievens was elected Treasurer to the Board of the renewed ISfTeH (International Society for Telemedicine & eHealth), and re-elected in December 2007 as Secretary-Treasurer.

As such, Mr. Lievens has been attending many Telemedicine Conferences and Events in various countries including: Albania, Argentina, Armenia, Australia, Austria, Belgium, Bosnia & Herzegovina, Brazil, Bulgaria, Canada, China, Croatia, Czech Republic, Denmark, Egypt, Finland, France, Germany, Hungary, India, Israel, Italy, Japan, Kenya, Luxembourg, Macedonia, Malaysia, Nigeria, Norway, Poland, Romania, Russia, Slovenia, South Africa, Spain, Sweden, Switzerland, The Netherlands, U.A.E., U.K., Ukraine, U.S.A.

Frank has also made various presentations on the Global Vision of Telemedicine/eHealth in the following cities: Abu Dhabi, Abuja, Antwerp, Bangalore, Berlin, Bhubaneswar, Brisbane, Brussels, Bucharest, Budapest, Cairo, Cape Town, Chandigarh, Chennai, Copenhagen, Dubai, Durban, Donetsk, Fiuggi, Fukuoka, Guanzhou, Hvar, Hyderabad, Iasi, Joensuu, Kuala Lumpur, Kunming, London, Luxembourg, Lyon, Mangalia, Montreal, Moscow, Mumbai, Nairobi, New Delhi, Ottawa, Parana, Paris, Perth, Pune, Rabat, Sao Paulo, Sarajevo, Saratov, Skopje, Sofia, Tarusa, Tirana, Tromsø, Vienna, Warsaw, Yerevan, Zagreb.

Over a period of 10 years, Frank LIEVENS has been instrumental in establishing contacts for the ISfTeH with several International Organizations and Institutions, Professional Associations, Telemedicine/eHealth Experts and has contributed to a sustained expansion of the Society, in harmonious and efficient collaboration with the other Board Members and the coordinators of the Working Groups.

Contact:
Mr. Frank LIEVENS
On June 16, 2012 Armenian Association of Telemedicine (AATM) and Union of Information Technology Enterprises (UITE) co-hosted a three-hour long session "Information and Communication Technologies for Healthcare" within the frameworks of the 5th Annual DigiTec Business Forum at Marriott-Armenia hotel in Yerevan. The session was dedicated to the memory of AATM co-founder and Board Member, General Secretary and Treasurer Dr. Davit Gasparyan who tragically died on May 12, 2012.

Click here to read more about the Healthcare ICT Session.

"Android® based mHealth TeleECG System"
Ibiraiaras, Brazil

The evolution of telecommunication and electronics has brought, in recent years, a number of new opportunities for the worldwide provision of health services. More recently, the availability of remote transmission of data via mobile devices - through wireless technology - paved the way for the expansion of telehealth with scope for homecare and remote monitoring of patients' vital parameters. Furthermore, new telemedicine tools equipped with 3G/4G and WiFi teletransmission facilities conferred mobility to the work of health sector professionals, as is the case of cardiologists who reside in remote areas and small towns. In Brazil, a digital tele-electrocardiography pilot project using cell phones and tablets (based on Android® operational system) was implemented at a community hospital (Fig. 1) in the city of Ibiraiaras - population 7000 inhabitants -, located in the state of Rio Grande do Sul (RS).
The system is able to cope with 12 leads ECGs, and the data is stored in a private cloud, being reachable through any web browser or any Android device version 3.2 or newer, in any part of the world. In a matter of minutes it is possible to perform a complete ECG analysis and receive back the remote doctor’s report, allowing the patient to go home with the results, to be directed for local hospital treatment or to be referred to a specialized hospital in case of medical urgencies. Besides the almost immediate knowledge of the patient’s condition, patients’ referral to specialized centres will only happen when it is really necessary, saving resources to who really needs them. With its activities started in August 2012, this groundbreaking work is the result of a partnership established between four RS institutions: the Institute of Informatics of the Federal University of Rio Grande do Sul, the Center for Telehealth of the Institute of Cardiology of RS, the Company i9Access Technology and the Regional Hospital of Ibiraiaras. Training sessions, held both in Porto Alegre (capital of RS state) and locally in Ibiraiaras, delivered technical and practical qualification for the involved professionals (Fig. 2).

The big advantage of the method is conferred by its mobile characteristics, allowing two cardiologists to receive digital electrocardiograms accompanied by relevant clinical data and conducting the analysis of teleECGs using last generation cell phones and tablet/portable PCs, both equipped with the Android® platform, version 3.2 (Fig. 3). The portable technology - “mHealth standard” - of this initiative allows cardiologists to provide 24/7 coverage for
the diagnosis of potential cardiological urgencies, wherever they are. This strategy can prove an invaluable technological contribution towards the implementation of regional teleECG networks, with major impact in areas where there is a significant shortage of cardiologists.

Fig 3. Mobile TeleECG - Android Platform

**Project Partners**

Centro de Telessaúde do Instituto de Cardiologia do Rio Grande do Sul, Brasil
Instituto de Informática da Universidade Federal do Rio Grande do Sul, Brasil
Empresa I9Access Technology, Brasil

*By: Dr. Adolfo Sparenberg*

*Cardiologist, Coordinator of the Centro de Telessaúde do Instituto de Cardiologia do Rio Grande do Sul, Brasil*

Institutional Member News

**i2CAT Foundation** is a research and innovation center placed in Barcelona that focuses its activities on the development of the future Internet within several domains: ehealth & ageing, audiovisual, education, distributed applications on network services, industry, Living Labs and ubiquitous technologies.

Please click here to view their latest press release.

"MedCom8 Dissemination and Technological Future-Proofing 2012-2013"

MedCom is dealing with national dissemination of IT supported cooperation in health care.
You can read more about MedCom's current activities in their brochure by clicking here.

________________________________

Individual Member News

“Signing Ceremony of the Contract between USAID’s NRSP - SGAFP and ASK/eHealth Services Ltd.”

USAID had funded a project for extension of quality healthcare in two districts of Pakistan's Sindh Province. The districts are Mirpurkhas and Tharparkar. 15 Rural eClinics are being created in these two districts. The Hub will be in Karachi from where General Physicians and Consultants will provide Health advise. The Specially trained Physician's Assistants (PAs) will use all electronic clinical assessment gadgets to populate the EMR. The Doctor will then have a live video session with the patient and may have real-time reassessment of the clinical information using remote gadgets. Once the Doctor/Consultant arrives at the decision, he will prescribe line of treatment. Medicines will be delivered to the patient at the rural locations.

During next 12 months over 50,000 patients are expected to be served through this network. The project will be ongoing and is designed on a self-sustainable program.

The program is supported by a number of strategic partners including, ASK Development, NUST-SEECs (The chair for HL-7 in Pakistan) INTEL, Timelenders, RIPHA University's Medical School and Hospitals, TCS, NATPOW, Several Pharmaceutical companies on mutual support basis.

The Program will provide quality healthcare to the rural population of these two districts and offer professional self-employment opportunity to over 100 people with male:female Share of 50:50. The menace of sale of expired and fake medicines will also be eradicated. eHealth is set to create over 15,000 rural eClinics over next 5 years in Pakistan.

To find out more about the USAID funded Telemedicine Initiative in Pakistan, please contact:

Nazir Ahmed Vaid, nazir.vaid@gmail.com

The following announcements are courtesy of ISfTeH Individual Member Abdel-Badeeh M. Salem, Professor of Computer Science and Head of BioMedical Informatics and Knowledge Engineering Research Lab at Ain Shams University in Abbasia, Cairo-Egypt:

1- I have a plenary talk titled "Ontological Engineering for Medical Knowledge Management“ at WSEAS 3rd International conference on Applied Informatics and Computing Theory (AICT ‘12) Barcelona, Spain, October 17-19, 2012


3- I'm organizing a Mini Track on “Intelligent Methodologies for Knowledge Management”. The track will be held in the frame of the International Conference on Inform and Evaluation (ICIME 2013) Ho Chi Min City, Vietnam on May 13-14, 2013
I'm organizing an International workshop on "Bio-Medical Informatics & Health" in the frame of The First International Conference for Computing & Informatics

Helwan University, Cairo, Egypt; December 11-13, 2012

Student Member News

"Telemedicine and Implementation Barriers"

Health is a major issue in all decades, involvement of information and communication technologies facilitate this sector but still there is a gap between developments, implementation and usage of telemedicine. There are many factors which are directly or indirectly produce barriers in front of telemedicine some of them are:

**Economical fears**
Unpredictable financial issues when the global economical crises increase from the last few years due to these investors are become more secure because they are confused about timeline to generate profit of their investments in this sector.

**Technology advancement**
In current era technology change day by day, this change ascends the big issue that is compatibility within as well between the systems, it affect the whole system in respect of time delay and also increase the development and implementation cost of system.

**Lack of collaborative work**
Globally there are different regions works for the same cause but they have no collaboration to each other, every group work in competitive environment rather than collaborative, so experienced technical personals are move from one region to another for their own benefits.

Hafiz Imtiaz Ahmed  
M.Sc Medical Informatics (Student)  
University of KwaZulu Natal (South Africa)  
College of Health Sciences  
Department of Telehealth

"Two Way Interactive Video eConsult System (TWIVES): A Web-Based Care and Continuity Solution Enabling Secure and Private Patient-Provider Connections"  
MSc eHealth Thesis

TWIVES is best-suited for rural and remote regions where there are shortages of well-trained medical professionals. TWIVES could also be used by volunteers in developed countries who want to help at these remote locations but do not necessarily want to travel to those areas (maybe due to cost, personal reasons or security situations in those areas). Imagine medical professionals in Canada, volunteering from the comfort of their home, attending to patients in Burundi Africa and rural India, using TWIVES.

The complete article/thesis on TWIVES is presently published at McMaster University's digital commons: [Click here to read](#).

You may also view a 2-minute video on TWIVES here.

I am hoping to find local partners in the roll-out of TWIVES, as part of my planned Ph.D. studies.
Regards,
Ken Nwosu
MSc eHealth, McMaster University