Preface

Dear Readers,

We are proud to present the Electronic Proceedings of Med-e-Tel 2012.

The 220 papers and abstracts from 57 countries, included in the Proceedings, were compiled for and presented at the Med-e-Tel 2012 (The International eHealth, Telemedicine and Health ICT Forum for Educational, Networking and Business, www.medetel.eu). The event was held at Luxexpo, Luxembourg, Grand Duchy of Luxembourg April 18-20, 2012.

Med-e-Tel 2012 brought together participants from all over the world, networking among themselves and with representatives of international organizations, companies and project teams.

Please, when reading, be so kind and have in mind that:

- The sessions are listed in the order of their scheduling in the Preliminary Program on March 10th, 2012;
- Papers within the sessions are arranged in an alphabetical order of their titles;
- In the content, after the title of papers and abstracts maximum of 3 to 4 co-authors are listed, while the remaining co-authors are marked as “et al”;  
- Last minute changes in the program, especially re-scheduling of presentations as a result of speakers’ requests, are not depicted in the organization of the Proceedings;
- Only texts that were submitted on time and were prepared according to the rules are included in the Proceedings;

The Proceedings is a collective experience of colleagues from different continents and different cultures.

The aim of the this Proceedings is to permit those who are planning to introduce eHealth / Telemedicine applications in their regions or countries to rely on experiences of others in order to avoid mistakes and to reduce potential problems.

We hope that anyone involved in eHealth/Telemedicine will find these Proceedings extremely interesting.

iii
With the publication of this Electronic Proceedings as well as with the fifth book from the series “Global Telemedicine and eHealth Updates: Knowledge Resources”, Med-e-Tel strengthens its position as a widely recognized International Educational, Networking and Business Forum for eHealth, Telemedicine and Health ICT.

Enjoy your reading!

Editors
Malina Jordanova, MD, PhD
Educational Program Coordinator, Med-e-Tel
Space Research & Technology Institute, Bulgarian Academy of Sciences
Bulgaria

Frank Lievens
Director, Med-e-Tel
Board Member, Secretary and Treasurer of International Society for Telemedicine & eHealth (ISfTeH)
Belgium & Switzerland
Editors gratefully acknowledge the work of all reviewers that dedicated lots of efforts, time and high expertise, and with their valuable advice, supported both authors and editors in the process of selecting, correcting and preparing for publication all papers and abstracts included in this proceedings.
## Content

**Preface**  

**Global Telemedicine and eHealth Update - Plenary Sessions**  

- eHealth Interoperability and Standardization: Enabling Safer and Equitable Health Services  
  *N. Al-Shorbaji*  
  2  

- Hospital at Home (HAH) and the ICT Infrastructure Needed to Support  
  *M. Blatt*  
  3  

- Intelligent Technologies and Methodologies for Medical Knowledge Engineering  
  *A-B. M. Salem*  
  4  

- International Council of Nurses eHealth Programme: Vision and Reality  
  *C. C. Bartz*  
  9  

- Empirical Analysis on the Reduction of Medical Expenditures by e-Health  
  *M. Tsuji, Y. Akematsu*  
  14  

- Use of eHealth for Health Systems Strengthening in Central Asia  
  *S. Khoja, H. Durrani, S. Nigar et al.*  
  25  

**Global eHealth Strategy Symposium - Policy, Implementation and Deployment**  

- A Feasibility and Acceptability Study of the Provision of mHealth Interventions for Behavior Change in Prehypertensive Subjects in Argentina, Guatemala and Peru  
  *A. Beratarrechea, A. Fernandez, P. Letona et al.*  
  30  

- Critical Shortage of Health Care Workers – Enabling Technology Solutions to Address Capacity Building and Training  
  *M. Gann, Mel Remington, N. Sundararajan et al.*  
  35  

- Deploying Innovative Mobile-based Telemedicine Systems using Open Source tools in Resource-poor Areas of the Philippines  
  37
J. Quesada, L. Celi, C. Moses

Telemedicine Regulation - How Not to Do It: A South African Experience
M. Mars, C. Jack

Towards to an International ”eHealth Insurance” for Taking Improved Support for Health care in Developing Countries
E. Muteba Ayumba

Mobile eHealth Solutions

A Customizable Mobile Tool to Promote Health and Prevent Non-Communicable Diseases
L. J. R. Lopez, D. G. Goroso

Achieving Behaviour Change among Pregnant Mothers Using Mobile Phones
A. Muqeet, S. Raza, D. Khan et al.

Afghan Mobile Health: A Model for Community Health
P. Killcommons

An Effective Mobile Monitoring for Patients at Risk of Fainting
G. Sannino, A. Minutolo, G. De Pietro

Design, Deployment and Field Lessons for Mobile Phone and Tablet Based Mobile Healthcare Solutions
M. Setton

Evolution of Mobile e-Health Technology, Tools and Practices in India
S. K. Mishra, R. D. Chand, I. P. Singh

Feasibility of Mobile Health for Rehabilitation – Pilot Study in Finland
R. Kuoremäki, K. Ahde, A. Heinonen et al.

Mailafiya: How mHealth Can Overcome Challenging Circumstances
Intel, Nigeria

mHealth Confidentiality - Understanding Cellphone use in KwaZulu-Natal, South Africa
C. L. Jack, M. Mars

Mobile DSMS: A Mobile Health System to Increase the Availability of Peer-Support among Persons Living with Chronic-Non
Communicable Diseases
S. Sultan, P. Mohan

Portable Telemedical System with an Intelligent Expert System for Doctor Decision Making Support in Emergency Situations
A. Panfilov, K. Komissarov, V. Stolyar

Russia: Experience in Using Mobile and Portable Telemedical Systems
V. Stolyar, O. Atkov, A. Panfilov

Security Challenges for Remote Patient Care Systems using m-Health Technologies
S. Naqvi, P. Drugmand, S. Rousseaux

The Potential of mHealth Technology Incorporation in Brazil
M. B. Cysne, M. S. Marcolino, J. X. Maia et al.

Innovative Technologies for Mental Healthcare

Help4Mood: First Release of a Computational Distributed System to Support the Treatment of Patients with Major Depression
S. Estévez, J. C. Castro, M. Wolters

INTERSTRESS Project: An Innovative Clinical Validated Solution for the Management of Stress Disorders
B. Wiederhold, D. Pizzioli, G. Riva, A. Gaggioli

Requirements for a Software-Intensive Ecosystem for Telemedicine
H. B. Christensen, M. Christensen, K. M. Hansen et al.

Appropriation of Information, Communication and Health Technologies
C. Duteil-Mougel, A. Geslin-Beyaert, L. Billonnet et al.

Smart Wearable Sensors for Biomedical Data Monitoring in the Treatment of Depression
J. Sousa, H. Silva, N. Santos, P. Aires

User-friendly ICT Tools to Enhance Self-Management and Effective Treatment of Depression in the EU
H. Silva, P. van de Ven, E. Tousset et al.

VERVE: Personalised Virtual Reality Scenarios for Groups at Risk of Social Exclusion

viii
Evidence of Telehealth Outcomes

Challenges in the Implementation of the Diagnostic and Treatment Expert System of Hypertension in Pregnancy
J. Gudu, D. Gichoya, P. Nyongesa, A. Muumbo

Chronic Care Management in Telemedicine: A Way to Tackle Chronic Diseases
M. Bethke, E. Blozik, N. Toelle, Jan von Overbeck

Clinical Decision Support Based on Practice Guidelines: A Business Case on Prostate Cancer Treatment
D. Pierre

Cloud Health: Lessons Learned From a Practical Example on Telemedicine Primary Care Service Launch for 2,000 patients
F. G. Boix, M. Tsuchiya, Fco. J. Sancho, M. Arnal

Effectiveness of a Chronic Care Management Programme for Patients with Type 2 Diabetes Mellitus
M. Bethke, E. Blozik, N. Toelle, Jan von Overbeck

e-Health and the Disaster Management Cycle
C. Sieben, R. E. Scott, M. Palacios

C. Maturana, R. E. Scott, M. Palacios

Impact of Motivational Interview to Increase Teleconsultations Requests: Analysis of an Experience in Minas Gerais
M. C. B. Melo, A. F. Santos, M. A. S. Dias et al.

Sustainability Plan for MEDNet project in Brazil
D. Rizou, J. C. Cavalcanti da Silveira, R. Vallandro

Telemedicine and Face-To-Face Health Care: Synergy or Opposition?
E. Blozik, J. von Overbeck

Telerehabilitation Programme: Lessons Learned From the TELEKAT Project
B. Dinesen, C. Nielsen, O. Grann et al.

The Use of Basic Available Technologies to Enable Healthcare:
Diabetic Retinopathy

A. Bess

Using IVR Technology to Expand Clinical Capacity and Improve the Quality of Life for Older, Chronically Ill Patients

J. Rich, C. Chuang, J. Howe, L. Larson

Webbased Lifestyle Self-Management for Chronic Kidney Disease Patients

M. Hettinga, J. Slegten, J. Nauta et al.

**Telecardiology**

A Device for Separation of Heart Sound from Respiratory Sound Using Lab-View during Auscultation

P. Cudd, Y. Gaidhane, Z. Quazi et al.

A Public Telecardiology Network in Southern Brazil: Results of Phase II (1st Year)

A. Sparenberg, G. Fetter

Applicability of Tele-Electrocardiography at Public Health Systems

M. M. P Rendeiro, E. R. Maia, S. O. V. Franco

Health Link Online: Wireless Online in Real Time Transmission of All Health Data to Dedicated Portal and Database

T. Poppe

Heart Failure Model for Assessment of Different Intervention Programs

J. Schröttner, P. Harter, A. Lassnig, P. Kastner

Identification of Heart Patients’ Everyday Need – Based on User-Driven Innovation

L. K. E. Hæsum, G. Nielsen, S. V. Hangaard et al.

Prevalence of Normal Electrocardiograms in Primary Care Patients: A Study by a Telemedicine Service in Brazil

M. S. Marcolino, M. B. M. Alkimim, D. M. F. Palhares, A. L. Ribeiro

Results of Online Remote Technical Support towards a Telecardiology Project in Southern Brazil


Teleconsulting for Collaborative Diagnosis and Care of Heart
Malformations in Balkan Countries
A. Taddei, E. Rocca, T. Carducci et al.

TelMedHome - Fast and Cheap Home Care Monitoring of the Patients with Cardiac Diseases
R. Krzyminiewski

The EVOLVO Study: Remote Monitoring in Heart Failure Patients with Implantable Defibrillator

Yardsticks for Telemedicine Maturity: A Teleradiology Case Study
L. van Dyk, M. Triegaardt

eHealth in Hospital Care

3rd Generation Clinical Telemedicine Encounter Management Systems
D. McCafferty

Antimicrobial Stewardship through Telemedicine in a Community Hospital in Remote Brazil
R. P. dos Santos, C. Deutchendorf, O. F. C. Pharmd et al.

Application of E-Base of Medical Data of the Institute for Oncology Aad Radiology of Serbia - IORS Hospital Cancer Registry
D. Jovicevic, B. Brankovic, A. Jovicevic

Development of an e-Health Platform for the Management of Hospitalized Patients
J. C. Rosario, I. V. Scheffler, M. R. Correa et al.

Hospital Engineering - Business Engineering in Health Care
T. Lux, R. Gabriel, A. Wagner, P. Bartsch
Implementation of an Electronic Hospital Information System in a Developing Country: A Case Study of Federal Medical Centere Owerri, Nigeria
V. C. Agbasonu

Telenursing

Nursing Professionals’ Barriers for the Use of Educational Technologies: An Integrative Literature Review
M. A. Trevizan, P. C. Nagliate, P. C. Nogueira et al.

Technology Use for Health Education to Caregivers: An Integrative Review of Nursing Literature
I. A. C. Mendes, P. C. Nogueira, P. C. Nagliate et al.

Telehealth Nursing: Building Knowledge through Research
C. C. Bartz

Telenursing Execution: A Need for Fabrication of Need Based Evidences
S. B. Sharma

Security & Standards

Development of a Secure Intelligent e-Prescription System
O. J. Emuoyibofarhe, A. Omotosho

eHealth Standardization to Meet Needs of Developing Countries
L. Androuchko, V. Androuchko

Secure Data Exchange Based on Signature PKI
S. Benzschawel, H. Zimmermann, Uwe Roth

The Issue on eHealth Integration into Routine Statistics
S. Enkhbold, D. Jargalsaiikhan, N. Khurelbaatar, O. Chimedsuren

Towards An Integrated and Interoperable Platform for Telehealth and Telecare
M. Clarke, C. Palmer, R. Jones

eHealth Economics

Clearing the Path – How to Improve Clinical Pathways in A Cost - Efficient Manner
T. Harju, A. Puhakka, N. Tammi et al.

Economic Superiority of USB-boot Cloud Type Remote-desktop System for Providing Telemedicine & Tele-care
A. Hosokawa, N. Nakayama

Four Years Evolution of a Teleconsultation Service in Minas Gerais, Brazil
J. X. Maia, M. S. Marcolino, M. B. M. Alkmim et al.
Home Telemonitoring of Respiratory Function in Cystic Fibrosis Patients: Economic Evaluation and Quality of Life
S. Bella, F. Murgia, C. Cotognini

Introducing Economical Criteria for Telehealth Implementation: An Application at the Telehealth Network of Minas Gerais

Retrospective Return on Investment Analysis of an Electronic Treatment Adherence Device Piloted in the Northern Cape Province
S. C. Broomhead, M. Mars

Telemedical Consultation Center as a Tool for Promoting Innovative Health Care in Remote Regions of Russia
A. Selkov, E. Selkova

The Economics of Biobanking International Cooperation Issues for Optimization of Quality Improvement
C. Huttin, M. Liebman

International Telemedicine and eHealth Initiatives and Developments

ARTEC – Remote Consultation and Medical Information System
R. Schliesser

Association for Ukrainian Telemedicine and eHealth Development - Report of Activity During 2010-2011
A. Vladzymyrskyy, V. Klymovytskyy, D. Kalinovskiy et al.

E-Health Dilemma in the Next Ten Years
V. Gueorguiev, I. Evgeniev, D. Georgieva, M. Nenova

E-Ophthalmology – One Solution for Innovative Health Management
I. Pendzhurov, P. Mihova, J. Vinarova, A. Alexieva

Experience of Applying Telemedicine in Mongolia
A. E. Schmaus

Musculoskeletal Telerehabilitation User Satisfaction - Preliminary Report
K. Krawczak, W. Glinkowski, D. Cabaj et al.

New Fact of the Early Telemedicine History
A. V. Vladzymyrskyy, O. M. Stadnyk, M. Karlińska
Official Telemedicine and eHealth Status in France: The Role of CATEL
A. Petitet, G. Comyn

Opportunities for and Barriers to eHealth and Telemedicine Implementation: a South African Perspective
L. Ncala, M. Molefi

Preliminary Report on the 1st Armenian International Health ICT Congress “ARMTELEMED: Road to the Future"
G. Chaltikyan, A. Avoyan, D. Gasparyan et al.

Quality is Critical
M. VanderWerf

Roadmap towards Sustainable Pan-European Certification of EHR System
F. Wisniewski, J. Devlies, I. Abad

Telemedical Ecology: Preliminary Results of Longitude Medical Environmental Research Project “MARS-500”
R. M. Baevsky, O. I. Orlov, A. P. Berseneva, A. G. Chernikova

Telemedicine: India Country Report
S. K. Mishra

Contributes To Improve Case Management in the Remote Areas of Mongolia
B. Densmaa, P. Bolormaa, D. Mungunchimeg et al.

Telemental Health in Biomedicine and Āyurveda: An Analysis of Online Health Forums in Slovenia and India
T. Ahlin, B. Brijnath

Innovative Policies and Solutions for Healthcare

Construction and Evaluation of a Website on Health of the Elderly
I. A. C. Mendes, A. O. T. de Souza, E. M. L. R. Andrade et al.

From Buzz to Business: eHealth Innovation Toolbox
T. I. Haaker, S. Visser, R. A. Menko, M. Hettinga

People with Depression in the Community across Europe
M. K. Wolters, L. Ferrini, J. Martinez-Miranda et al.

Innovation Policies and Macro-Regional Development in Health Care:
Impact on Telemedicine and eHealth

T. Karopka, P. Frank, W. Blank

Measurement of Blood-Glucose via Near Field Communication (NFC)
S. Cecil, M. Bammer, G. Schmid et al.

Remote Controlled Tele-Sonography Model Using H-323 Protocol
P. Cudd, Y. Gaidhane, Q. Syed Zahiruddin et al.

Telemedical System for Individual Prenosological Health Assessment
O. I. Orlov, V. I. Pougatchev, A. P. Berseneva et al.

Using Humanoid Robot in Ambient-Assisted Living
M. Simonov, A. Frisiello, M. Bazzani

Management of Chronic Diseases - Development of New and Innovative Assisting Technologies

Introduction

Connect2Care - Challenges In Current and Future Infrastructures for Healthcare Services
M. Christensen

Home Training Platform for COPD Patients Using Microsoft Kinect
K. Hallenborg

Personal Health Record for Chronic Patient
B. Dinesen

Sketching of Welfare Technologies – Co-Creating New Solutions for Health
M. Wagner, M. Leth Olsen, E. Kühne

Home Care & Telemonitoring

A 3D Accelerometry - Based Fall Detection System for the Elderly: Realistic False Alarm Rate and Sensitivity
C. Soaz, C. Lederer, M. Daumer

A Framework for Business Continuity Management in Home-Care Context
O. Rejeb, F. Marmier, E. Lamine et al.

AFA-ConnectAlzheimer: Telepsychology for Caregivers
**J. Benavent, J. C. Castro, J. M. Colomé, I. Macanaz**

Domestic Risk Prevention and Technologies: New Jobs of Tomorrow for Home Support  
*P. Boutet, E. Peyrot, S. Queriaud et al.*

DREAMING – Alarm and Monitoring System for Empowerment of Elderly Citizens  
*C. D. Marcussen, M. A. Craggs, J. Clemensen*

ElderCare: How Technology Can Help To Care for Elderly People Who Live Alone  
*I. González, J. M. López*

Go-myLife: How ICT Can Improve and Facilitate the Social Interaction While Ageing  
*I. Olalde, J. M. López*

Hospital At Home: Telemedicine Assisted Discharge of COPD (Chronic Obstructive Pulmonary Disease) Patients to the Home Environment  
*J. Bergsåker-Aspøy, M. Svanes*

ICT Health and Home: What Opportunities Exist on the Horizon of 2015-2020?  
*C. Simonpietri, H. Delahaie*

Improving Care of the Elderly with an ‘Intelligent Bed’  
*N. Soerensen, C. Oestergaard, B. Dinesen*

New Approach to the pHealth, Based on Wireless Monitoring of Vital Signs and on Online Evaluation of Disease Risk  
*J. Jansa, K. Zvolisky, V. Kolcava et al.*

Plug&Care-Connector – A Middleware to Reduce Costs and Create Platform Independence in Telemonitoring Programs  
*M. Lindlar, S. Mohr, D. Seider*

Software Model and Algorithms to Monitor Training At Home with Advanced Sensor Technologies  
*K. Hallenborg*

Successful Business Case: Telecommunication Product allowing eHealth Companies to Extend Lifetime of Their PSTN Devices  
*M. Berrebi, M. Freudmann*

Technology-based Management of Emotional Wellbeing in the Older
Population

J. Doyle

Telemonitoring of Diabetic Retinopathy in Rural Areas in Lithuania

A. Paunksnis, L. Valius, K. Andrijauskas et al.

eHealth in Support of Routine Medical Practice

A Systematic Review of Incentives and Motivation Mechanisms in Worksite Health Promotion Programs

F. Kerssenfischer, T. Fritsch

Autismecare2.0, a New Approach for Mental Health Care

S. M. H. Timmer, A. A. van Dijk

Effects for Age-Related Diseases of Healthy Diet and Nutraceuticals if Managed with the RISTOMED e-Diet Web Platform

F. Buccolini, A. Pinto, I. Bourdel-Marchasson et al.

Enhancing M-Health Services: eWaveMD Telemedicine Solution for Ethiopia: A Practical Approach

R. Schliesser

Interoperability in Integrated Biomedical Systems

L. Lhotska, M. Huptych, M. Bursa

Personal Health Record Market Ecosystem: An Analysis of Key Success Factors

A. Schiltz, J-M. Temerson, G. Zanolin

Rural Tele-Healthcare Project

M. Kalra

Specifying Workflow Requirements for Holistic Care

F. Malamateniou, M. Poulomenopoulou, G. Vassilacopoulos

Standard Operating Procedures for Telemedical Care in Emergency Medical Services

C. Buescher, H. Fischermann, F. Hirsch et al.

Strategy for Reduction of Specialist Appointment Queues

A. F. dos Santos, R. da Costa Oliveira, N. Rievers Queiroz et al.

Supporting the Therapist in eSupport

J. Sjöström, S. Alfonsson
Tele-Regulation as a Means to an Efficient Management

Web Portal Patient-Generated Messages: Are Patients Using This Mode of Access Safely?
F. North, S. Crane, R. Stroebel, S. Tulledge-Scheitel

**Image Transfer: Problems and Achievements**

Broadband Access for e-Health Use: A Study on PACS Application
B. Salgues, R. Picard

Comparison of the Digital Video Transport System (DVTS) and High Definition H.323 System for Telemedicine
C. D. Minh, S. Shimizu, K. Kudo et al.

Moving From Pilot to Implementation: The Road to Cost-Effective, Accessible, Healthcare
D. Trendafilova

Trauma Telemedicine: Providing Real-Time Solutions to Real-Time Problems
A. Marttos, F. M. Kuchkarian, D. F. Rojas et al.

Ultrasound Imaging Teleconsultations in Peru and Brazil
D. Rizou, A. B. Tronchoni, W. Menary

**Poster Session**

A Framework for Intensive Patient-oriented Health Wiki: A Responsible Web-based Reference for Looking up Health Problems
S. Massah, P. B. Karimzad Sharifi

A Research Initiative toward the Remote Chronic Disease Management: The CHRONIOUS Project
P. Bertele, C. Masella, S. Solvi, L. Govoni

Applicability of a Formative Second Opinion in the Resolutiveness of the Primary Attention in Healthcare
M. M. P Rendeiro, C. Vieira, D. L. T. Medina

Applying Machine Learning To Predict the Progression of HIV Infection Using CD4
Y. Singh, M. Mars
Assistive Tools for Real-Time Optimized Audits of Homes of People with Disabilities or With Loss of Autonomy
F. Mas, L. Galet, F. Bouillon et al.

Bridging the Patient Empowerment Gap of National Healthcare Services with QR Codes
S. Urazimbetova, M. Kyng

E-Database Dedicated To Improving the Quality of Hospital Services and Better Utilization of Resources in the Institute for Oncology and Radiology of Serbia
B. Brankovic, D. Jovicic, A. Jovicic

eHealth in Kenya – Readiness Assessment of Two Counties
S. M. Kiura

Electronic Indoor Morbidity Mortality Report: A Realistic Approach to Discharge Data Collection and Analysis
N. C. Kariyawasam, M. K. D. R. B. Dayaratne

ICT Tools for Early Diagnosis Support (TB) - TEDS
L. Murrugarra, P. Prieto, J. Agapito et al.

Infoculture: A Barrier for the Access to Permanent Education?

MENTORbike - Intelligent and Automated Training Support with a Pedelec
B. Feodoroff, A. Chapko, M. Schlicher et al.

Modeling Extraction of Temporal Knowledge from Patient Records
V. C. Agbasonu, A. Ogini, U. Nnodum

OASIS II Implementation and Preliminary Results in Bonsaaso, Ghana
S. Ohemeng-Dapaah, P. Mechael, E. Akosah et al.

Predicting a Single HIV Drug Resistance Measure from Three International Interpretation Gold Standards
Y. Singh, M. Mars

Proposal for a Course Script and Model in a Virtual Learning Environment
M. A. Trevizan, C. A. Seixas, S. de Godoy et al.

Regional Telemedicine Network for Multidrug Resistant Tuberculosis Treatment and Control
A. Vladzymyrskyy, V. Mozgovoy

Small Clinics CRM: A Key Factor in Promotion of Follow-Up Care
(A Proposed Framework for Iranian Healthcare System)

Smart Homes in 2012: When the Floor Becomes Intelligent for People with Loss of Autonomy
C. Peurichard, M. Fayet, A. Le Roux et al.

Social Networks and Telehealth: Enlarging Access to Health Promotion. Telehealth UERJ-Brazil’s Experience in Preventing Childhood Obesity at Schools
M. Rocha, J. Neves, R. Santos et al.

Software for Low Cost Digitalization of Radiographic Films in Teleradiology: Telehealth UERJ – RJ-Brazil
A. Monteiro, A. Bhaya, J. Grande et al.

Telehealth as Professional Update: The Experience of Telehealth-UERJ-RJ- Brazil Networks Program in Distance Education Courses
M. Valério dos Santos, R. Santos, J. Neves et al.

Telehealth UERJ RJ-Brazil Networks: The Impact of Using Technologies for Teleconsulting
R. Santos, M. V. dos Santos, J. Neves et al.

Telehealth UERJ RJ-Brazil: Innovating By the Fusion of Technologies for Teleconferences
M. V. dos Santos, R. Santos, J. Neves et al.

Telehealth UERJ RJ-Brazil: The Impact of Using Technologies for Health Education
E. Diniz, M. V. dos Santos, R. Santos et al.

Teleradiology at Emergency Units in Rio de Janeiro: Reporting Telehealth UERJ-Brazil Experience on the Issue
A. Monteiro, E. Diniz, R. Santos et al.

U-CARE – A Research Program on Psychosocial Care via the Internet
J. Sjöström, S. Alfonsson, E. Olsson

University Network in Telemedicine (RUTE) and Telehealth Brazilian Networks: Telehealth UERJ RJ-Brazil
E. Diniz, M. V. dos Santos, R. Santos et al.
Regional Initiatives in Telemedicine and eHealth 642

acCURAte-Business (CURA-B) 643
A. Roos

Asynchronous and Synchronous Teleneonatology – Clinical Experience at National and Regional Levels 645
A. V. Vladzymyrskyy, O. I. Ryaskova

Biotelemetry Tool for Healthcare in Local Area 649
J. V. Barbosa, D. G. Goroso, L. J. R. Lopez

Challenges of Implementing Telemedicine Projects, the Limpopo Experience 654
S. Nysschens, M. Molefi

Data Privacy Protection of Medical Data in a National Context 655
U. Roth, H. Zimmermann, S. Benzschawel

eHealth: Case Studies in the Czech Republic 659
L. Lhotska, J. Zvarova, L. Seidl

Innovation 4 Welfare, Turning Welfare Challenges into Business Opportunities 664
M. S. Ausàs

National Strategy on Telehealth for Slovenia – One Year Progress in Preparation of the Foundations 669
D. Rudel, T. Vidjen, J. Gašperšič, M. Breskvar

Telemedicine: Case Studies in the Czech Republic 674
L. Lhotska, J. Zvarova, M. Sarek

The “Canadian e-Health for Haiti” Initiative 679
R. E. Scott, M. Palacios, C. Maturana, C. Sieben

The Child and Adolescent Telemedicine Outreach Service (CAPTOS) Story: 15 Years of Rural Professionals’ Capacity Building Through Video Conferencing 685
S. Foley, K. Nunn, D. Dossetor

The Experience of Developing an Electronic Advance Care Plan for Residents of Aged Care Facilities in Australia 689
S. Condon, I. Ellis, E. Cummings et al.

Promoting Telemedicine/eHealth Practice: ISfTeH Student 696
Videoconference Session

IT Solution to the Quality Problem of Medical Laboratory Documentation (Case Study: Cameroon)  697
F. Wefuan

Telemedicine-Future of Universal Health Care in India  699
S. Rastogi

The 3D Posture Telediagnosics: Preliminary Efficiency Study  704
A. Żukowska, B. Glinkowska, J. Michoński et al.

The Development of Web-Based Surveying Platform for eHealth and Clinical Telemedicine  708
B. Łukasik, W. Glinkowski, K. Marasek

Validation of Physiological Data Transmission System  712
R. Ferreira, J. C. Rosario, M. Much et al.

eLearning  717

Improving Hand Hygiene Compliance by eHealth Initiatives: At Distance Education Program  718
R. Pires dos Santos, L. R. Konkewicz, N. M. Kuplich et al.

Laparoscopic Surgery Education and a Multinational Project for Distance Learning  723
L. Avtan, G. B. Cadière, C. Avci

The Art of Learning and Integrating: Improving Quality and Affordability of Health Care through the eHealth Package  728
N. Moens

TRANSFoRm: Vision of a Healthcare Learning System  734
V. Curcin, A. Taweel, T. N. Arvanitis et al.

eHealth for Low Resource Settings and Developing Countries  736

Collaborative Efforts towards eHealth Adoption in Asia  737
H. Durrani, S. Nigar, S. Tirmizi, S. Khoja

Diagnosis of the Situation of Telehealth in Nine Countries in Latin America  741

xxii

Forensic Telepsychiatry: A Solution for the Developing World? 745
M. Mars

One Thousand Web-based Tele-Consult: Analysis of What the Patients Ask and the Challenge of Replying 750
R. Assadi

Promoting an Enabling Environment for ICT in the Health Sector in Nigeria 752
N. U. Lydia

Treating the Needy Patients Free 756
P. Koirala

Distance Consultations 757

Alcatel-Lucent Patient Centered Telemedicine (PCT) – Enabling real transformation in Healthcare 758
N. Hill, S. Ahuja

Anatomy of a Teleconsultation 761
J. Cinqualbre, D. Uhlrich, N. Grosse et al.

CLAHRC Health Improvement Support System (HISS) 763
V. Curcin, T. Woodcock, J. Reed, D. Bell

Roadmap Dermato-ICT Model and Possible Opportunity to Explore in the Field to Establish 765

Make it Quick: Texting is Now the Preferred Way to Communicate in Relationships 770
K. C. Holmes

Using a Teleophthalmology Service to Facilitate Appropriate Referrals of Patients with Diabetic Eye Disease 775
S. Surka, J. Surka

Benefits of Free/Libre Open Source Software in Health Care (FLOSS-HC) 780

An Open Source Software Tool for Creating and Managing Patient 781
<table>
<thead>
<tr>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consents Electronically in IHE XDS.b Environments</td>
<td></td>
</tr>
<tr>
<td>O. Heinze, M. Birkle, H. Schmuhl, B. Bergh</td>
<td></td>
</tr>
<tr>
<td>Application of Open Source Software in Clinical Daily Routine:</td>
<td>782</td>
</tr>
<tr>
<td>Position of German and European Hospital CIOs</td>
<td></td>
</tr>
<tr>
<td>H. Schmuhl, O. Heinze, B. Bergh</td>
<td></td>
</tr>
<tr>
<td>Creation of an Integral Distributed Teleophthalmology System</td>
<td>783</td>
</tr>
<tr>
<td>D. Garcia-Morate, I. Miranda-Diez, J. Tovar et al.</td>
<td></td>
</tr>
<tr>
<td>Embracing eHealth: Free and Open source (FLOSS) Opportunities in</td>
<td>788</td>
</tr>
<tr>
<td>Kenya</td>
<td></td>
</tr>
<tr>
<td>S. M. Kiura, P. Ontunya</td>
<td></td>
</tr>
<tr>
<td>Enabling Innovation by Open Hospital Architecture: The AEXIST</td>
<td>793</td>
</tr>
<tr>
<td>Open Source Electronic Health Record Initiative</td>
<td></td>
</tr>
<tr>
<td>R. Hoekstra, R. Borgts</td>
<td></td>
</tr>
<tr>
<td>How to Make Use of a Wiki for Knowledge and Information</td>
<td>794</td>
</tr>
<tr>
<td>Management in an Imaging Department</td>
<td></td>
</tr>
<tr>
<td>V. Lapczynski</td>
<td></td>
</tr>
<tr>
<td>MECES (<a href="http://www.diagnomx.eu">www.diagnomx.eu</a>) – An Open Access, Secure, And Multi Language Medical Communication System</td>
<td>797</td>
</tr>
<tr>
<td>K. Kayser, S. Borkenfeld, A. Djenouni et al.</td>
<td></td>
</tr>
<tr>
<td>Moodle Report: The Cornerstone between Teaching Activities and</td>
<td>803</td>
</tr>
<tr>
<td>Students’ Performance</td>
<td></td>
</tr>
<tr>
<td>C. Kiyan, M. Zolfjo, M. Mehta et al.</td>
<td></td>
</tr>
<tr>
<td>USB-boot Cloud Type Remote-desktop System Built by Open Source</td>
<td>806</td>
</tr>
<tr>
<td>Software</td>
<td></td>
</tr>
<tr>
<td>A. Hosokawa, N. Nakayama</td>
<td></td>
</tr>
<tr>
<td>Round up of the FLOSS-HC Sessions and Discussion of New Developments and Collaboration Opportunities</td>
<td>807</td>
</tr>
<tr>
<td>E. Saliez, T. Karopka</td>
<td></td>
</tr>
<tr>
<td><strong>International Workshop on Biomedical Informatics (Bml’12)</strong></td>
<td>809</td>
</tr>
<tr>
<td>A Multi-Modal Biosignal Based Approach to Stress Detection</td>
<td>811</td>
</tr>
<tr>
<td>W. Khalifa, K. Revett, M. Roushdy, A-B. M. Salem</td>
<td></td>
</tr>
<tr>
<td>Analyses and New Ways for Hospital Information Systems</td>
<td>816</td>
</tr>
<tr>
<td>V. Gueorguiev, I. Evgeniev</td>
<td></td>
</tr>
</tbody>
</table>
Building OBR-based OWL Ontology for Viral Hepatitis
I. F. Moawad, G. AL Marzoqi, A-B. M. Salem

Collaborative Development of Dermatovenereology Ontology
T. A. Gavrilova, R. A. Ravodin, E. S. Bolotnikova, A. V. Kotko

Dynamic Context Aware Access Control Model for the Areas with Shortage of Healthcare Professionals
Z. Omary, F. J. Mtenzi, B. Wu

Machine Learning for Processing Myocardial Perfusion SPECT Images
S. H. ElRefaie, K. Revett, A-B. M. Salem

Ontology-Based Knowledge Representation for Liver Cancer
M. Alfonse, M. M. Aref, A-B. M. Salem

Software for Transfusion Laboratory Practice
P. Mihova, I. Pendzhurov, J. Vinarova, A. Timcheva