Tutorials Sunday June 26th 2016 From 09:00 to 12:00

1. Ontology-based information visualization for Healthcare Collaborative Network Organization

1.1. Morcous Massoud Cairo University

Abstract: By combining virtual communities with Internet portal and content management technologies, Collaborative Network Organization (CNOs) share, access and extend the tacit and explicit knowledge within and across organizations. CNOs are a special kind of web-enabled communities of practice, where like-minded people collaborate and work together towards a common goal, sharing the same vision and values. Information visualization is a powerful tool for communicating complex ideas, but also for exploring data. Research in information visualization has been fueled by the continued growth in the size and complexity of data sets, but it has focused mainly on visualization techniques. Understanding the process of visualization from a wider perspective would support both the development of visualization software, and the adaptation of information visualization as an exploratory technique. This tutorial aims to study this process, and how it can be used to support the exploration of interorganizational networks in particular. In addition, a case study involving the visualization of Healthcare CNO will discuss.

Keywords: Ontology, informatics, visualization, Collaborative Network Organization.

2. Analytic Strategies of Streaming Data for eHealth

2.1. Dr Sunmoo Yoon, Dr Michelle Odlam, Dr Young Ji Lee Columbia University

Abstract: New analytic strategies for streaming big data from wearable devices and social media are emerging in ehealth. We face challenges to find meaningful patterns from big data because researchers face difficulties to process big volume of streaming data using traditional processing applications. This introductory 180 minutes tutorial offers hand-on instruction on analytics (e.g., topic modeling, social network analysis) of streaming data. This tutorial aims to provide practical strategies of information on reducing dimensionality using examples of big data. This tutorial will highlight strategies of incorporating domain experts and a comprehensive approach to streaming social media data.

Keywords: Streaming data, big data, social network analysis, topic modeling, data mining
3. NI Continuing Education: Replicating a U.S. Model in Other Countries?

3.1. Dr Carol J. BICKFORD, Kathleen SMITH ANA, ICCE, LLC

Abstract. The need for nursing informatics continuing education is ongoing as informatics nurses and informatics nurse specialists are expected to be lifelong learners. This tutorial will explore how a very successful U.S. model, Weekend Immersion in Nursing Informatics (WINI), might be considered for replication in other countries. Details about the initial course design, presentation content outline, and sustainability will be shared. Participant input and discussion will be an integral component of this tutorial. The target audience includes informatics nurses, professional development and academic faculty, and those creating interprofessional informatics education programs.

Keywords. Continuing education, nursing informatics, scope and standards of practice


4.1. Martin Pearce, Maureen Perrin, Dr Margaret Kennedy
    Gevity Consulting Inc

Abstract: A fast paced workshop designed for senior public health decision makers and clinical leaders implementing information systems to support delivery of public health programs. The tutorial will introduce public health information systems and provide best practices for implementing solutions related to immunization, communicable disease case management and outbreak management.

Using a combination of formats, the tutorial will:
Highlight key functionality of public health information systems.
Review global crises currently exposing gaps and deficiencies in public health information.
Examine governance, planning, and implementation priorities.
Highlight considerations supporting implementations nationally and in special populations.
Provide real, actionable lessons learned to take away and apply in the real world.

Keyword: Public Health Information Systems, Communicable Disease, Immunizations, Best Practices
Afternoon Tutorials Sunday 26th 2016 from 13:00 – 16:00

5. The need for a global language - SNOMED CT introduction

5.1. Jane Millar, Ian Green: IHTSDO

Abstract: SNOMED CT is the most comprehensive, multilingual clinical healthcare terminology in the world. It is a resource with comprehensive, scientifically validated clinical content. SNOMED CT enables consistent, processable representation of clinical content in electronic health records. When implemented in software applications, SNOMED CT can be used to represent clinically relevant information consistently, reliably and comprehensively as an integral part of producing electronic health information. SNOMED CT supports the development of comprehensive high-quality clinical content in health records. It provides a standardized way to represent clinical phrases captured by the healthcare professional and enables automatic interpretation of these. SNOMED CT is a clinically validated, semantically rich, controlled vocabulary that facilitates evolutionary growth in expressivity to meet emerging requirements. SNOMED CT based clinical information benefits individual patients and clinicians as well as populations and it supports evidence based care. The use of an Electronic Health Record (EHR) improves communication and increases the availability of relevant information. IHTSDO works with other standards organisations to ensure interoperability and a key area has been the work with ICN to enable the use of ICNP and SNOMED CT by the nursing profession internationally.

Keywords: SNOMED CT, Nursing, ICN, Interoperability, Terminology

6. Understanding New Types of Evidence Ready for Translation into Nursing Informatics

6.1. Dr Kathleen McCormick, SciMind, LLC, USA

Abstract: Nurses are the primary deliverers of patient care and observers of patient side effects to medications. The primary objective of this tutorial is to bring the participants up to date in genomic applications for nursing from birth until death. A secondary objective is to define at least 17 pharmacogenomics evidence guidelines ready for implementation into the Electronic Health Record. The target audience are nurses in practice, implementers of EHRs, nursing in leadership and policy-making positions, those focused on defining new areas for nursing research, and educators who are in need of defining criteria for integrating genomics into nursing education.

Keywords: Evidence-based practice, genomics, pharmacogenomics, nursing observations of adverse effects, integration into HER
7. Human Factors for Nursing: From In-situ Testing to Mobile Usability Engineering

7.1. Andre W. Kushniruk; Elizabeth M. Borycki; Terje Solvoll; Carola Hullin

Uni Victoria, Uni Hosp North Norway, Cath. Uni Chile

Abstract: The tutorial goal is to familiarize participants with human aspects of health informatics and human-centered approaches to the design, evaluation and deployment of both usable and safe healthcare information systems. The focus will be on demonstrating and teaching practical and low-cost methods for evaluating mobile applications in nursing. Basic background to testing methods will be provided, followed by live demonstration of the methods. Then the audience will break into small groups to explore the application of the methods to applications of interest (there will be a number of possible applications that will be available for applications in areas such as electronic health records and decision support, however, if the groups have applications of specific interest to them that will be possible). The challenges of conducting usability testing, and in particular mobile usability testing will be discussed along with practical solutions. The target audience includes practicing nurses and nurse researchers, nursing informatics specialists, nursing students, nursing managers and health informatics professionals interested in improving the usability and safety of healthcare applications.

Keywords: Usability, usability engineering, human factors, in-situ, mobile, patient safety

8. User-Centred Design using Gamestorming

8.1. Dr Leanne Currie; Dr J. Craig Phillips; Charlene Ronquillo; Derek Roswell

University of British Columbia

Abstract: User-centered design (UX) is becoming a standard in software engineering and has tremendous potential in healthcare. The purpose of this tutorial will be to demonstrate and provide participants with practice in user-centred design methods that involve ‘Gamestorming’, a form of brainstorming where ‘the rules of life are temporarily suspended’. Participants will learn and apply gamestorming methods including persona development via empathy mapping and methods to translate artefacts derived from participatory design sessions into functional and design requirements.

Keywords: User-centred design, end-user design, participatory design, usability