Foundational eHealth Curricula for the health care workforce

Citation

Year
2017

Version
Publisher's PDF (version of record)

Link to publication
TUTCRIS Portal (http://www.tut.fi/tutcris)

Take down policy
If you believe that this document breaches copyright, please contact tutcris@tut.fi, and we will remove access to the work immediately and investigate your claim.
Foundational eHealth Curricula for the health care workforce

Alpo Värr, Johanna Tolonen, Tampere University of Technology, Finland

This project has received funding from the European Union’s Horizon 2020 research and innovation programme under Grant Agreement No. 727552 EUUSEHEALTHWORK

Tampere University of Technology
Established in 1965
Approx. 1,700 employees and 8,330 students (2016)
Started operating as the form of a foundation in 2006
Collaborates with approx. 230 universities around the world
Quality assurance system audited by The Finnish Higher Education Evaluation Council in 2014

Tampere3 University Fusion
The following three universities in Tampere will unite on 1.1.2019
• Tampere University of Technology
• University of Tampere
• Tampere University of Applied Sciences
These will form a new foundation university to be called Tampere New University

Tampere3 University Fusion
Ideas and viable solutions at Tampere3 health seminar

Tampere3 linking together local research in various health-related areas. The second HealthPioneers seminar held at the end of March saw another opportunity for networking and planning future research openings.

The EU*US eHealth Work Project
• Our Mission:
  – map skills and competencies
  – provide access to knowledge, tools and platforms, and
  – strengthen, disseminate and exploit success outcomes for a skilled Transatlantic eHealth Workforce
• Our overall Goal: to measure, inform, educate and advance eHealth and health information technology skills, work and workforce development throughout Europe, the United States and globally
Key Project Deliverables on the Horizon

- Survey of Current State of Needs
- Foundational Curricula
- Instructional eHealth Simulator Module
- Interactive Web Platform
- eHealth Skills Assessment and Development Framework

TUT Education in Health Informatics

Intended primarily for engineering students

Minor in Health Informatics, 25 cr

Learning Outcomes

Establishing the health IT education baseline in Finland – a local survey

- Interviews and a literature survey
- Results to be presented by Johanna Tolonen
The objective:
- Identify the existing IT related education to the health care work force in Finland.

A secondary objective:
- Get an impression of the experience and attitudes of the members of this workforce about health IT education.

1. Literature survey: the study guides of many major health care professional education organizations,
2. 24 telephone interviews of health care professionals in different fields in Finland

Results
- Given education varied considerably during studies
  - Basic information technology education is often available at every level of education
  - IT skills often part of other courses
  - Registered nurse education appeared to contain more IT related education than the physicians' and practical nursing education
- The amount and quality of on-the-job information technology education varies
  - Learning to use the health information systems during their training periods or later in working life
  - Health care personnel seemed to have the basic knowledge of the patient record systems but they often thought that they want to have more education to use the programs

Conclusion
- The results lead to suggest:
  - Health professional degrees should contain at least a minimal amount of relevant health IT education tested with an exam
  - Present health care workforce should receive ear-marked in-service training for health IT (supplementary education not necessarily contain any IT related education)
  - Education of the necessary IT-skills should be covered by the employer
  - Surviving with the IT-skills
    - Potential to use the IT systems more efficiently if the skills were better

A two- or three-phase education:
1. Basics of the application
2. Information about the more advanced features after 1-2 weeks
3. Rehearsal and new feature introduction 6-12 months after the first training.

IT education serves the professional's needs and is a essential tool in health care working environment.
Foundational curricula

Two target groups
- Students of health care professions
- Health care professionals at work

Recognize different levels of education
- Everybody needs basic digital skills (office software, e-mail, web browsing, social networks, password practices...)
- Basic Health IT skills
  - Generic
  - National flavors (e.g. HIPAA/EU Data Protection Directive)
- Job role related Health IT skills
  - Generic
  - National flavors (e.g. health care cost compensation models)

Source for skills: the HITCOMP tool, http://hitcomp.org


Guidelines on the adoption of DigComp, Stefano Kluzer, 15.12.2015

Main results of the GAP analysis (3)

Many target professionals

Localization

Filter
**Foundational curricula**

Many target professionals

- Anesthesiologist, Attending Physician / Specialty Physician,
- Audiologic Aide / Auditory Technician, Audiology Technician, Behavioral Medicine Technician, Behavioral Therapy Assistant, Behavioral Therapist, Bereavement Coordinator, Cardiology Technician / EKG Technician / Vascular Lab Technician, Care Coordinator, Certified Medical Assistant, Certified Nurse Assistant, Certified Pharmacy Technician, Charge Nurse / Nurse Manager, Clinical Case Manager, Clinical Lab Assistant, Clinical Laboratory Technologist/Lab Technician, Clinical Nurse Specialist/Patient Care, Dental Surgeon / Doctor of Dental Medicine or Doctor of Dental Surgery / Endodontist / Periodontist / Orthodontist / Prosthodontist, Dental Department Head Physician, Dialysis Technician / Certified Hemodialysis Technician, Dietetic Technician, Dietitian / Registered Dietitian,...

Many potential competencies

This project has received funding from the European Union's Horizon 2020 research and innovation programme under Grant Agreement No. 727552 EUUSEHEALTHWORK

Create, manage and utilize policies for accessing, collecting, entering, retrieval and storage of patient data, including single-sign on, remote record access, access pertaining to "scribes", and other data access issues, as part of the appropriate care management team; Assist and monitor needs and requirements for access to virtual content, collections, environments and repositories by different customers, end-users and patients, including those with visual, hearing or other impairments affecting access, and align the design of virtual environments to user and organisational needs; Define the procedures, processes and techniques for knowledge development and capture, and select those that will work best in your organisation and which can be used as part of day to day work; Design and apply health IT/eHealth survey and data collection tools in research and biomedicine/emerging medical technology, and know where to source that work effort; Determine and direct processes that identify information systems, health IT and engineering knowledge assets, leveraging their value, and evaluating duplication, synergies and gaps;

Mapping the roles to competencies

Challenges to Address

- Convincing the education administrators to recognize the importance of Health IT skills in health professional degrees
- What to remove from the basic health professional degrees to make space for Health IT
- Who wants to bear the costs of supplementary education
- Motivational issues of the personnel
- Maintenance of the foundational curricula – an organization to keep the curricula up-to-date is needed

**Bringing the work to a wider context**

New Skills Agenda for Europe

The new Skills Agenda for Europe launches a number of actions to ensure that the right training, the right skills and the right support are available to people in the European Union. It will aim at making better use of the skills that are available, make easier the use of new skills that are needed. It will also focus on the capacity of the education and training systems, to bring new skills in line with the evolving needs of employers. It will also aim at increasing the attractiveness of the skills that are needed and at encouraging the pursuit of lifelong learning.

The Commission is working with Member States, social partners, the industry and other stakeholders to work together for:

- Improving the quality and relevance of skills formation
- Making skills more visible and comparable
- Improving skills intelligence and information for better career choices

This is set out in the Communication: A New Skills Agenda for Europe - Working together to strengthen human capital - employability and competitiveness. The Communication proposes 89 actions to be taken forward over the next two years. A number are announced with the adoption of the new Skills Agenda for Europe on 15 June 2016

http://ec.europa.eu/euratoc/all_main.jsp?catId=122&lang=en
Contacts in TUT

- Alpo Värri, PhD, Associate Professor, Alpo.Varri@tut.fi
- Johanna Tolonen, M.Sc., Johanna.Tolonen@tut.fi
- Milla Jauhiainen, B.Sc., Milla.Jauhiainen@tut.fi