Curriculum Development for Interdisciplinary Postgraduate Specialist Study in Medical Informatics

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Abstract. This paper presents an overview of a Croatian project MEDINFO - Curriculum Development for Interdisciplinary Postgraduate Specialist Study in Medical Informatics. Project aims to draft a qualification standard for specialist in medical informatics and a curriculum based on IMIA recommendations, literature review and a survey on required competences among Croatian professionals in medical informatics. It is funded by the European Union through IPA program (Development of Human Resources - Further development and implementation of the Croatian Qualification Framework). Preliminary results of a survey of health informatics practitioners are presented.

Keywords. Medical Informatics, Curriculum

Introduction

Large scale introduction of health information systems, as foreseen by the Croatian National Health Care Strategy 2012-2020 [1], will require adequate human resources to support design, deployment and use of these systems. However, no institution of higher education in Croatia provides master level study in medical/health informatics [2]. Overall objective of the project is to contribute to the development and implementation of the Croatian Qualification Framework through development of a new qualification standard for university specialist in medical informatics and the development of a new postgraduate specialist (master level) study program following the International Medical Informatics Association (IMIA) recommendations [3]. The target group for the new program in medical informatics are master level professionals in any of the areas of medicine, nursing, public health, information and computer science and others who work in health or IT sector designing, developing and implementing ICT solutions for health. Main activities of the project are focused on needs assessment, building staff capacity, development of a qualification standard and a curriculum, and delivering a small number of pilot courses. We present here preliminary results of the needs assessment survey.

1. Methods

The project started in August 2013 and will last 18 months. Needs assessment was based on the literature review, analysis of existing study programs, and a survey of health informatics practitioners from Croatian health and IT sectors. The survey was
inspired by the Australian approach to skill needs assessment [4], and modified to comply with the current version of IMIA recommendations [3] and the Croatian and European Qualification Frameworks [5,6]. We have selected top competences based on average estimate of the needed level of skill from all responses.

2. Results

Information on the number of medical informatics professionals active in Croatia is not available, however Croatian Medical Informatics Society (CMIS) has around 100 members. We have contacted all health care institutions and members of the CMIS asking them to fill in an online questionnaire. So far we have received 42 completed replies (23 male and 19 female respondents). They were between 23 and 58 years old. Around one third described their job as health informatics professional. They came from all levels of health care institutions. Top five IMIA learning outcomes from our survey were: Project management and change management (IT), Health administration, health economics, etc. (MED), Evaluation and assessment of IS (MI), IS life cycle (IT), Principles of data representation and data analysis (MI).

3. Discussion

Preliminary results of our survey show some similarity (project/change management, health administration, data representation), but also differences (IS evaluation, IS life cycle) with the Australian results [4]. They could be attributed to change in medical informatics work environment due to passing of time, due to national characteristics, or due to the differences between questionnaires which were based on different versions of IMIA recommendations. As a matter of fact, results differ in skills that were not present in the earlier IMIA recommendations. We believe that our preliminary results show there is a need for a similar EU wide survey that would help European health/medical informatics education to stay aligned with the needs of the practitioners. We would be interested in joining such an initiative.

References