Career Development: Competencies and Skills for Health Informatics Educators

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Abstract

Health Informatics is an inter-disciplinary endeavor that has a strong element of team working, as colleagues from diverse fields collaborate to deliver digital health. This requires educators to be conversant with the key ideas and the academic practices of the different disciplines on which health informatics draws, and typically, to be expert in at least one application area within the field. These requirements can prevent academics who focus on education from achieving goals required for career advancement in academia. Informatics is not as widely recognised as other medical disciplines or other careers such as biomedical research and clinical care, which can also limit recognition.

This workshop will explore frameworks and strategies for career progression as academics with a focus on health informatics education and collect and share evidence to support career advancement and recognition. The workshop will be delivered in three phases: (1) exploration and round-table discussion of competency frameworks and skills for health informatics educators; (2) collection of relevant evidence to support them; (3) development of personal plans or plans for development of colleagues.

At the end of the workshop participants will have gained a better knowledge and understanding of how to develop their own career (or the careers of others) and the skills required and how to develop them to progress as a health informatics educator.

Round table discussions focussed on competency frameworks and skills for health informatics educators will be collected and reported back to the participants following the workshop.

The workshop will be led by two of the UK's health informatics educators who have focussed their career on teaching and scholarship in health informatics. They are responsible for developing their institutions capacity in health informatics and health data science education and also lead the capacity building for the UK's national institute.

Introduction

The requirement to develop informatics skills in the healthcare workforce has never been greater. To meet the increased demand for skilled informaticians, we must develop academics and professionals who understand the complexities and elements of the field, and who devote a substantial element of their time to health informatics education and the delivery of effective and innovative training programmes. To date, health informatics educators and the field of health informatics education has received less attention

than other similar fields such as medical education, and career advancement particularly in academia for those that focus on teaching and scholarship has been difficult.

In this workshop we will focus on the career development of health informatics educators, in particular, the different skills and evidence required at each stage to advance.

Workshop Objectives

By the end of the workshop the participants will have:
1) learned about key competencies and skills that are required by health informatics educators at different career stages;
2) identified practices and principles for career advancement in informatics education; and
3) reflected on their own career development and identified their personal development needs.

Outline of topics to be covered

- Promotion criteria for Teaching and Scholarship Academics
- Healthcare Educator Professional Frameworks (*e.g.,* Health Educators Framework and Medical Education Professionals Framework)
- Case-studies outlining different career pathways and skills in health informatics education
- Personal Development Plans

Level of material to be covered

Intermediate

Target Audience and pre-requisites

The target audience for the workshop are informatics educators and academics who are interested in how to develop skills, collect evidence and pursue careers in health informatics education.

Attendees will be invited to complete a brief questionnaire shortly before attending the workshop, indicating their level experience and their expectations, to be used to help assign attendees to groups and tailor the activities appropriately.

Outline of workshop

The workshop will be structured in two sections building participants knowledge and understanding of the skills and evidence required to develop as a health informatics educator.

Timing	Activity
SECTION 1: HEALTH INFORMATICS EDUCATORS CAREERS This section will provide an introduction to the workshop detailing case-studies and comparisons of how health educators in informatics and other related fields develop careers. One hour in total.	

5 minutes	Welcome and introduction
15 minutes	Principles of career advancement in health informatics education and the introduction of professional standards for other healthcare professional educators (*e.g.,* medical educators professional standards). This will include 10 minutes presentation and 5 minutes for participant discussion.
30 minutes	Round-table discussions focussing on the different domains and elements expected in health informatics teaching and scholarship. Attendees will work in small groups. Each group will focus on each of the domains for 5 minutes.
10 minutes	Overall group discussion and findings (facilitated by presenters)
SECTION 2: IDENTIFYING DEVELOPMENT NEEDS This section focuses on the identification of personal (or faculty) needs to develop health informatics educators using the frameworks and criteria introduced in section 1. The output will be a development plan.	
20 minutes	A short talk by each of the presenters outlining how they developed their careers including evidence required to support career advancement criteria, and how they have supported the development of junior colleagues, as health informatics educators in academia. Presenters and attendees will sharing tips about important knowledge, skills and contributions.
30 minutes	Putting together a personal development plan, including relevant evidence to support this for career advancement in health informatics education, through peer-to-peer discussion.
10 minutes	Workshop Wrap Up and Next Steps. A key outcome of the workshop will be for attendees to identify ongoing needs that can be met by the development of a peer network of informatics educators and the potential for creating and sustaining such a support mechanism within or outside existing professional structures.

Presenter Biographies

The workshop will be led by two academics who have recently been promoted to full professor on the strength of the contributions to the development of taught programmes at their institutions and their contributions to the development of informatics nationally. Both have previous experience of running skills development workshops at international meetings and have, as part of their work for the Farr

Institute, successfully led an international leadership programme for early and mid career academics in health informatics and data science

Georgina Moulton is a Professor of Bio-Health Informatics Education at The University of Manchester, UK. She is an Associate Director of Training at the UK national institute, Health Data Research UK, as well as being Director of Workforce Development and Training for the Department of Health funded programme, Connected Health Cities. She leads the post-graduate education in health informatics and health data science at her host institution, and is the co-academic lead and Programme Director for the MSc in Health Informatics. Her career to date has focussed on workforce profiling and developing curriculum from A-levels to postgraduate and consultant levels for health data scientists, health informaticians and clinicians as well as directing teaching to support this. She has presented at conferences detailing career development in health informatics/data science and mentors PhD students and junior academics and professional educators in her department in the development of health informatic and data science education and pedagogical practices.

Paul Taylor is a Professor at UCL's Institute of Health Informatics and the academic lead for its health informatics and health data science education and training portfolio, which includes one of the UK most long-established MSc programmes in health informatics, and health data science programme as well as a health informatics element within the undergraduate medical curriculum. He is the author of 'From Patient Data to Medical Knowledge', a textbook for health informatics. His research interests have focussed on the use of computer systems in clinical decisions, particularly in image interpretation including mammography and chest radiography. He is currently leading a major collaborative project to create a resource of routinely collected ophthalmic data, including imaging, to answer a range of questions relating to the progression of disease and effectiveness of treatment for common retinal conditions.