Global Health Informatics Competencies: Recommendations for Inter-professional Care Delivery

Session #179, February 13, 2019

Ursula Hübner, PhD, University of Applied Sciences Osnabrück, Germany

Beth L. Elias, PhD, MS, FHIMSS, University of Scranton, PA, USA

DISCLAIMER: The views and opinions expressed in this presentation are those of the author and do not necessarily represent official policy or position of HIMSS.

Conflict of Interest

Ursula Hübner, PhD

Beth L. Elias, PhD, MS, FHIMSS

Have no real or apparent conflicts of interest to report.

HOCHSCHULE OSNABRÜCK
UNIVERSITY OF APPLIED SCIENCES

©HIMSS 2018–2019

Ursula Hübner, PhD

Overview

- Professor of Medical, Health Informatics & Quantitative Methods at University AS Osnabrueck, Germany
- Past International Co-Chair TIGER Committee 2015-2018
- Member Scientific Program Committee for MEDINFO 2019 Lyon France
- Study Dean for the Promotion of Young Scientists at University AS Osnabueck
- Health informatics educator since 1997

HOCHSCHULE OSNABRÜCK
UNIVERSITY OF APPLIED SCIENCES

©HIMSS 2018–2019

Beth L. Elias, PhD, MS, FHIMSS

Overview

- Faculty in Interdisciplinary Health Informatics, Panuska College of Professional Studies at the University of Scranton
- Past National Co-Chair TIGER Committee 2015-2018 and User Experience Committee Member
- HIMSS Fellow
- Informatics educator since 2009
- Previously a Senior Computer Systems Engineer in healthcare and clinical trials

#HIMSS19

©HIMSS 2018–2019

HIMSS19

Overview

Agenda

- Why health informatics education and workforce development?
- International Core Competency Synthesis Project
- EU*US eHealth Work Project
- TIGER Recommendations Framework 1.0 and 2.0
- High priority core competency areas
- Global case studies illustrating these core competency area
- Conclusions
- Take home message

#HIMSS19

©HIMSS 2018–2019

Learning Objectives

- Describe the International Competency Synthesis Project and its implication for health informatics professional development
- Recognize both the different national and international needs for interprofessional health informatics competencies
- Discuss national and international health informatics exemplar competency case studies that bring to life competency needs and findings.
- Identify key elements of an eHealth curriculum (undergraduate, postgraduate, continuing education including certifications) for nurses and all health professionals involved in inter-professional patient care.
- Assess how a competency framework can help to demonstrate professional achievements and plan careers.

©HIMSS 2018–2019

HIMSS19

Overview

TIGER Technology Informatics Guiding Education Reform

Focus:

Engaging and preparing the global workforce in using technology and informatics to improve the ***delivery of patient care***

History:

- 2006: TIGER began as a grassroots initiative within the nursing community - gradually extending the scope to include other clinical disciplines and move into the inter-professional arena
- 2012: Expanded the TIGER vision globally by establishing the International Committee
- 2014: TIGER transitioned to HIMSS and today is supported by the Professional Development Department
- 2018: TIGER International Task Force now represented by 28 countries worldwide; Paula Procter and Bob Brookshire serve as co-chairs

#HIMSS19

©HIMSS 2018–2019

HIMSS19

Overview

Global TIGER Community

MEDINFO 2017 in Hangzhou, China

TIGER pioneer Marion Ball with colleagues at Run Run Shaw Hospital

HIMSS18 Las Vegas

TIGER Global Leadership Meeting

Marion Ball and Beth Elias

EU*US eHealth Work Project Kick-Off Germany

October 2016 project kick-off meeting in Hamburg, Germany

MIE2018 Sweden

TIGERs and colleagues

#HIMSS19

©HIMSS 2018–2019

Audience Polling Question #1

How many educators are in this room?

A. Health Informatics educators

B. Health professional educators

C. IT educators

D. Computer science educators

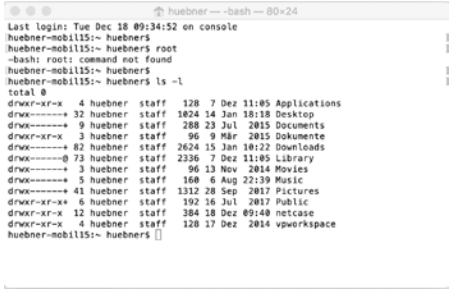
©HIMSS 2018–2019

HIMSS19

Why health informatics education?

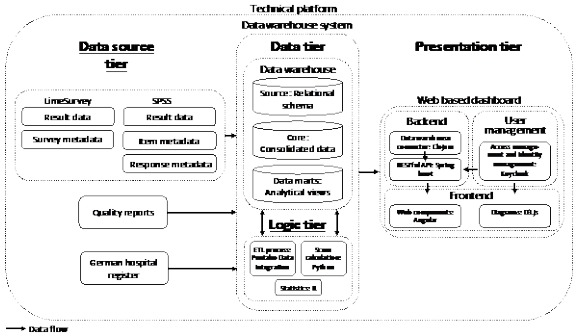
Technology has changed dramatically over the last decades!

User interfaces 1980



to user interfaces 2019

But is it really less complex



or more safe?

J Healthc Risk Manag. 2017 Jan;36(3):6-15. doi: 10.1002/jhrm.21259.

EHR-related medication errors in two ICUs.

Carayon P[1], Du S[1], Brown R[1], Cartmill R[1], Johnson M[2], Wetterneck TB[1].

Nurs Adm Q. 2015 Oct-Dec;39(4):345-56. doi: 10.1097/NAQ.0000000000000119.

A Systematic Review of Nurses' Experiences With Unintended Consequences When Using the Electronic Health Record.

Gephart S[1], Carrington JM, Finley B.

#HIMSS19

HIMSS19

Why health informatics education?

#HIMSS19

eHealth education must be invented anew!

Health informatics education for clinicians is:

- **… not** about on/off switches, printer cables and how to write an eMail
- … about the **systems level thinking** that is required in a connected health environment: *How can health IT support the patient care team? How does my work impact the work of my colleague, did they understand what I my **communication**?*
- … about doing things **right**: *Do I store patient data on my personal devices? Did I ask the patient to consent to the transmission of their data, have I checked the strength of my password?*
- … about **not automagically trusting** the EHR output: *Does what I am seeing make sense given the patient? Did I do a plausibility check?*
- … about exploiting **new opportunities**: *How can I use patient data to transform healthcare and the care of a particular patient?*
- … about **patient** interaction: *What do I do when patients want me to share the electronic record with them?*

©HIMSS 2018–2019

HIMSS19

Why health informatics education?

Where are the priorities and examples in an ocean of options and needs?

What are high priority **core competencies** in health informatics?
Do they depend on the (future) **role** of the health professional?
Is this competency relevant because it is **innovative**?
Should I teach / learn **basic** stuff or **advanced** methods?
How do I know?

What can **I learn from colleagues** and faculty of other institutions?
What courses are they offering?
Can I get **hands-on experience**?
How do I **deliver the content**?
How often do I need to **update** content?

©HIMSS 2018–2019

Audience Polling Question #2

Have you made use of educational recommendations? If so, what is your primary resource?

A. AHIMA

B. AMIA/IMIA

C. CAHIIM

D. HIMSS TIGER

©HIMSS 2018–2019

HIMSS19

TIGER International Recommen-dations Frameworks 1.0 and 2.0

#HIMSS19

Two projects to show the priorities and provide examples

International Competency Synthesis Project

HIMSS transforming health through IT

KeGL Kompetenzentwicklung von Gesundheitsfachpersonal im Kontext des Lebenslangen Lernens

GEFÖRDERT VOM Bundesministerium für Bildung und Forschung

EU*US eHealth Work Project

EU*US eHealth WORK

Measure Inform Educate Advance

Funded by European Commission's Horizon 2020 Research and Innovation Programme (Grant-ID #727552)

T.I.G.E.R. TECHNOLOGY INFORMATICS GUIDING EDUCATION REFORM

TIGER International Recommendations Frameworks

1.0
nurses

2.0
multiple professionals

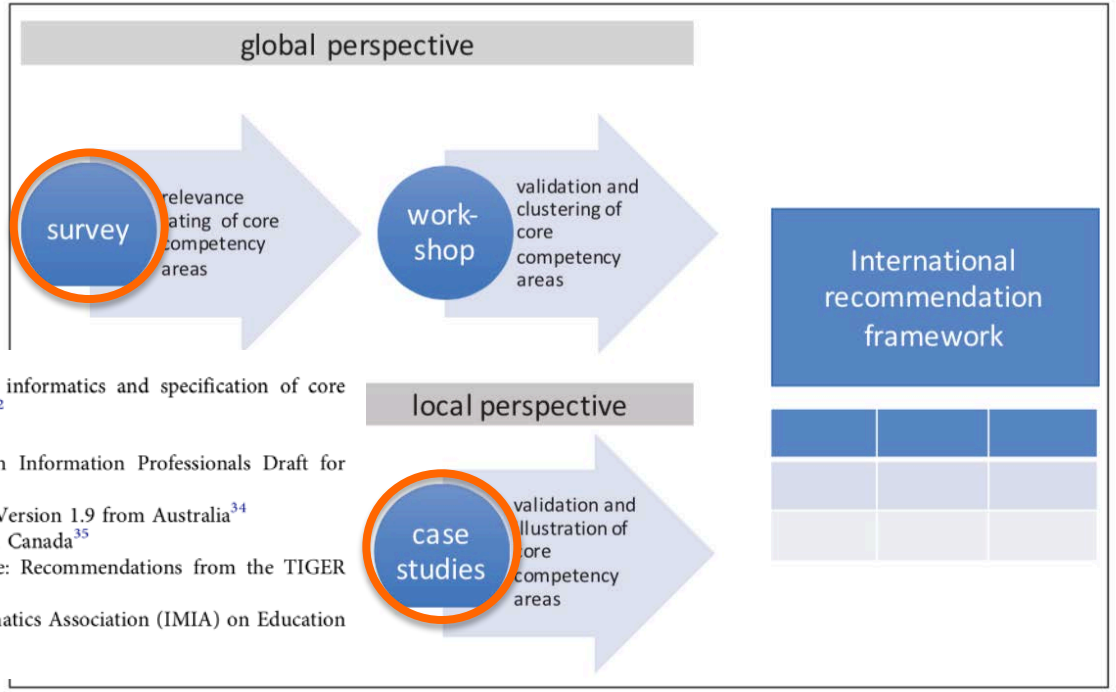
©HIMSS 2018–2019

Methodological Approach

TIGER International Recommendations Frameworks 1.0 and 2.0

International Competency Synthesis Project

EU*US eHealth Work Project



- AMIA Board White Paper: definition of biomedical informatics and specification of core competencies for graduate education in the discipline[32]
- German NKLM[31]
- Global Academic Curricula Competencies for Health Information Professionals Draft for Public Comment[33]
- Health Informatics Scope, Careers and Competencies Version 1.9 from Australia[34]
- Informatics Professional Core Competencies v3.0 from Canada[35]
- Informatics Competencies for Every Practicing Nurse: Recommendations from the TIGER Collaborative[36]
- Recommendations of the International Medical Informatics Association (IMIA) on Education in Biomedical and Health Informatics First Revision.[37]

Figure 1 Methodological approach.
Hübner et al. 2018

Methods Inf Med 2018; 57(Open 1): e30–e42
https://doi.org/10.3414/ME17-01-0155

Open Access Publication

TIGER International Recommendations Framework 1.0

#HIMSS19

International Competency Synthesis Project

TIGER International Recommendation Framework 1.0

Original Articles

OPEN ACCESS

Technology Informatics Guiding Education Reform – TIGER*

An International Recommendation Framework of Core Competencies in Health Informatics for Nurses

Ursula Hübner[1]; Toria Shaw[2]; Johannes Thye[1]; Nicole Egbert[1]; Heimar de Fatima Marin[3]; Polun Chang[4]; Siobhán O'Connor[5]; Karen Day[6]; Michelle Honey[7]; Rachelle Blake[8]; Evelyn Hovenga[9]; Diane Skiba[10]; Marion J. Ball[11]

[1]Health Informatics Research Group, University of Applied Sciences Osnabrück, Osnabrück, Germany;
[2]Clinical Informatics, HIMSS North America, Chicago, IL, USA;
[3]Federal University of São Paulo (UNIFESP), São Paulo, Brazil;
[4]National Yang-Ming University, Taipei, Taiwan/ROC;
[5]School of Health and Social Care, Edinburgh Napier University, Edinburgh, UK;
[6]School of Population Health, The University of Auckland, Auckland, New Zealand;
[7]School of Nursing, The University of Auckland, Auckland, New Zealand;
[8]Omni Micro Systems, Omni Med Solutions GmbH, Hamburg, Germany;
[9]eHealth Education Pty Ltd and Global eHealth Collaborative, East Melbourne, Australia;
[10]University of Colorado College of Nursing, Aurora, CO, USA;
[11]Healthcare Informatics, Center for Computational Health, IBM Research, USA

Methods Inf Med 2018; 57(Open 1): e30–e42
https://doi.org/10.3414/ME17-01-0155

©HIMSS 2018–2019

TIGER Recommendation Framework 1.0

TIGER International Recommendations Framework 1.0

International Competency Synthesis Project

Table 4 Recommendation framework of health informatics for nurses. Legend: DIK = data, information, knowledge; EL = ethical and legal issues; IEIS = information exchange and information sharing; SLCM = system life cycle management; MAN = management in informatics; STAT&TECH = biostatistics and medical technology; REL = mean relevance from 0 … 100.

Roles		Clinical nursing (direct patient care)		Quality management		Coordination of inter-professional care		Nursing management		IT management in nursing	
Core competency area	Domains	REL n = 41	Covered by case studies from	REL n = 41	Covered by case studies from	REL n = 41	Covered by case studies from	REL n = 43	Covered by case studies from	REL n = 41	Covered by case studies from
Principles of nursing informatics	DIK	80.5	• UK-SCO • NZ • BR • TW-CHN	80.2	• NZ	74.6	• NZ	82.3	• NZ • GER	89.5	• NZ
Information and knowledge management in patient care	DIK	82.2	• UK-SCO • NZ • BR • USA • TW-CHN	83.2		85.4	• NZ	84.0	• GER • NZ • USA	86.1	• NZ • USA
Nursing documentation (including terminologies)	DIK	80.5	• UK-SCO • BR • TW-CHN	84.4	• NZ	83.4	• NZ	92.1	• GER • NZ	83.4	
Decision support by IT	DIK	70.2	• UK-SCO • BR • USA • TW-CHN	72.7		70.0	• NZ	74.7	• USA	85.4	• NZ • USA
Information management in research	DIK	51.0	• NZ • USA	72.4	• NZ	60.5		63.3	• NZ • USA	71.5	• NZ • USA

Methods Inf Med 2018; 57(Open 1): e30–e42
https://doi.org/10.3414/ME17-01-0155

Clinical role in nursing

Domain

Core competency area

Mean global relevance

Related exemplar case studies

©HIMSS 2018–2019

HIMSS19

TIGER International Recommendations Framework 1.0

#HIMSS19

Clinical Nursing: Global relevance ratings

International Competency Synthesis Project

	Core competency area	REL
1	**Nursing documentation (including terminologies)**	94.4
2	Information and knowledge management	82.2
3	Principles of nursing informatics	80.5
4	Data protection and security	80.0
5	**Ethics and IT**	79.5
6	Information and communication systems (incl. interoperability)	75.1
7	Quality management	72.0
8	**Decision support by IT**	70.2
9	eHealth, telematics and telehealth (including interoperability)	69.5
10	Assistive technology for ageing people	69.0
11	Process management	67.8

Methods Inf Med 2018; 57(Open 1): e30–e42
https://doi.org/10.3414/ME17-01-0155

©HIMSS 2018–2019

Multiple Health Professionals: Global relevance ratings

HIMSS19

TIGER International Recommendations Framework 2.0

#HIMSS19

EU*US eHealth Work Project

Professional role

Health information management (HIM)		
	Core competency area	***REL ± SD***
1	*Communication* [n=184]	90.1 ± 19.0
2	*Documentation* [n=184]	87.7 ± 18.0
3	*Data analytics* [n=183]	87.7 ± 17.9
4	Leadership [n=184]	87.0 ± 19.0
5	Data protection & security [n=184]	86.9 ± 19.3
6	Information & knowledge management in patient care [n=182]	86.2 ± 19.4
7	Ethics in health IT [n=184]	85.6 ± 20.2
8	Principles of health informatics [n=182]	85.1 ± 18.4
9	Care processes & IT integration [n=183]	84.8 ± 19.1
10	Learning techniques [n=184]	84.2 ± 20.2

Top 3 core competency areas and mean global relevance

Executives (EXC) (clinical and administrative)		
	Core competency area	***REL ± SD***
1	*Leadership* [n=55]	96.4 ± 7.8
2	*Communication* [n=55]	95.8 ± 8.3
3	*Quality & safety management* [n=55]	90.4 ± 16.1
4	Information & knowledge management in patient care [n=55]	89.2 ± 16.9
5	Strategic management [n=55]	89.1 ± 21.0
6	Principles of management [n=55]	88.6 ± 20.8
7	Legal issues in health IT [n=55]	87.6 ± 16.3
8	Process management [n=55]	87.5 ± 16.4
9	Resource planning & management [n=55]	87.3 ± 21.7
10	Ethics in health IT [n=55]	87.0 ± 18.3

Chief information officers (CIO) (clinical and technical)		
	Core competency area	***REL ± SD***
1	*Leadership* [n=62]	93.8 ± 9.6
2	*Communication* [n=62]	93.2 ± 10.7
3	*Care processes & IT integration* [n=62]	91.8 ± 13.7
4	Principles of management [n=61]	90.8 ± 12.2
5	Quality & safety management [n=61]	90.5 ± 12.7
6	Strategic management [n=61]	90.0 ± 13.4
7	Process management [n=62]	89.6 ± 13.6
8	Change & stakeholder management [n=61]	89.6 ± 12.6
9	Ethics in health IT [n=61]	88.7 ± 18.0
10	Resource planning & management [n=61]	88.4 ± 18.7

Engineering or health IT specialist (ENG)		
	Core competency area	***REL ± SD***
1	*Communication* [n=172]	91.3 ± 14.3
2	*Care processes & IT integration* [n=171]	87.5 ± 18.9
3	*Information & communication technology (applications)* [n=171]	87.2 ± 18.0
4	Leadership [n=172]	86.1 ± 17.8
5	Project management [n=172]	85.4 ± 19.7
6	Data protection & security [n=171]	84.3 ± 22.6
7	Ethics in health IT [n=170]	83.4 ± 22.2
8	Interoperability & integration [n=172]	83.0 ± 21.7
9	Documentation [n=172]	82.1 ± 22.6
10	Process management [n=172]	82.0 ± 21.7

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

HIMSS 2019

HIMSS19

TIGER International Recommendations Framework 2.0

#HIMSS19

Multiple Health Professionals: Global relevance ratings

EU*US eHealth Work Project

Science and education (S&E)		
	Core competency area	***REL ± SD***
1	*Communication* [n=218]	91.6 ± 16.1
2	*Teaching, training & education in health care* [n=220]	89.2 ± 17.9
3	*Leadership* [n=218]	88.2 ± 17.3
4	Learning techniques [n=218]	88.1 ± 18.8
5	Ethics in health IT [n=219]	86.5 ± 21.3
6	Documentation [n=222]	86.3 ± 21.2
7	Information & knowledge management in patient care [n=221]	86.3 ± 20.2
8	Principles of health informatics [n=218]	83.3 ± 23.2
9	Quality & safety management [n=220]	83.1 ± 22.9
10	Data analytics [n=218]	81.9 ± 23.6

Quality & safety management, Documentation and Care processes & IT integration among Top 10 for four of the six roles

Data analytics among Top 10 for three of the six roles

Communication among Top 3 for all roles

Leadership and **Ethics in health IT** among Top10 for all roles

Direct patient care (DPC) (nurses/physicians/therapists)		
	Core competencies	***REL ± SD***
1	*Communication* [n=335]	92.4 ± 14.5
2	*Documentation* [n=337]	91.7 ± 17.2
3	*Information & knowledge management in patient care* [n=335]	90.0 ± 17.5
4	Quality & safety management [n=333]	87.5 ± 18.9
5	Leadership [n=336]	86.2 ± 19.0
6	Learning techniques [n=334]	85.6 ± 18.8
7	Teaching, training & education in healthcare [n=333]	84.4 ± 21.0
8	Ethics in health IT [n=334]	83.8 ± 23.0
9	Information & communication technology (applications) [n=332]	81.6 ± 20.5
10	Care processes & IT integration [n=333]	81.1 ± 21.3

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

©HIMSS 2018–2019

Global Educational Case Studies

EU*US eHealth Work Project

TIGER International Recommendations Framework 2.0

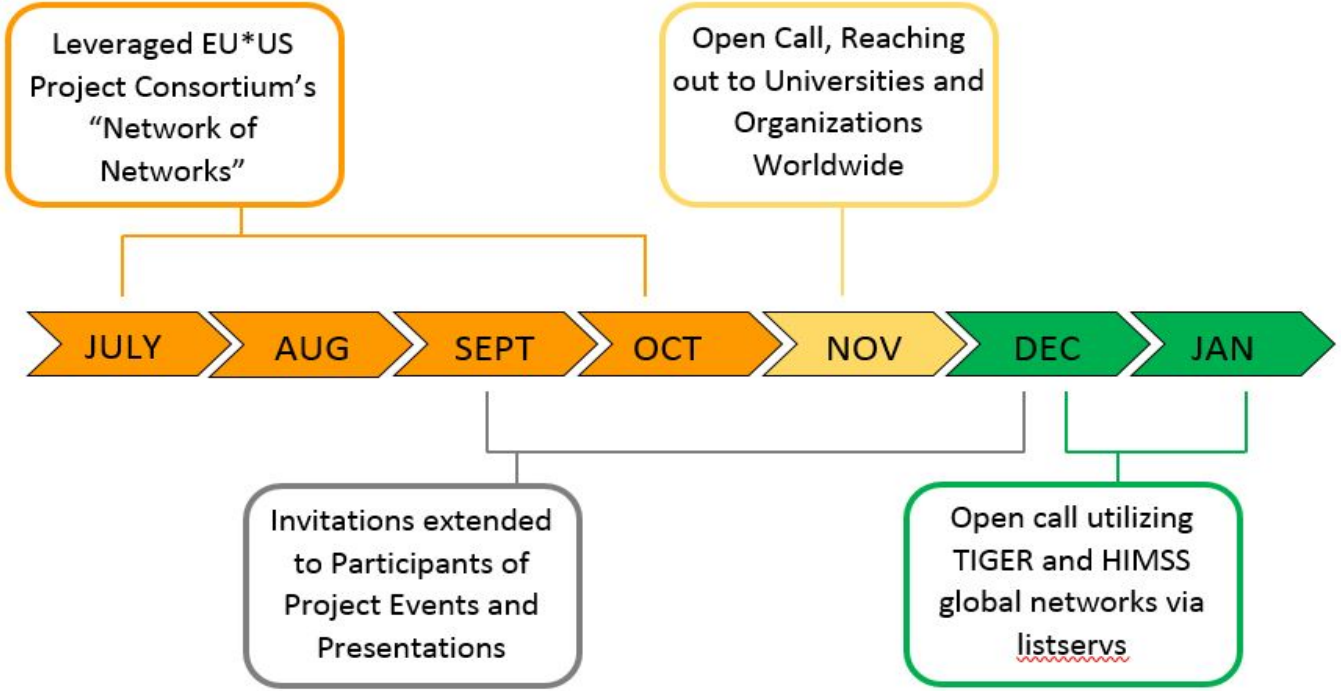
No	author's name	country	organization	micro, meso, macro	professions	educational level	technology supported learning
1	Elske Ammenwerth	Austria	UMIT - Private University for Health Sciences, Medical Informatics and Technology	micro - university programme (curriculum)	interprofessional	Masters (curriculum)	fully online
2	Lynn Nagle	Canada	University of Toronto	macro - country	nursing teachers	Continuing Education (stepwise approach)	webinars included
3	Zhuang Yiyu (April)	China	Sir Run Run Shaw Hospital	meso - hospital	nurses	Continuing Education (principles of the curriculum)	online tests, systems use
4	Inge Madsen	Denmark	Aalborg University	micro - university programme	nurses	Bachelor (curriculum)	no information
5	Kaija Saranto	Finland	University of Finland - Kuopio Campus	micro - university programme	interprofessional in cluding social work with focus on nursing	Masters (principles of the curriculum and curriculum)	no information
6	Outi Ahonen, Jonas Tana, Gun-Britt Lejonqvist, Marge Mahla, Sanita Marnauza, Elina Rajalahti	Finland, Latvia, Estonia	Laurea University of Applied Sciences; Arcada, Tartu Health Care College, Red Cross Medical College Riga	micro - university programme across countries	interprofessional	Bachelor (curriculum)	fully online
7	Ursula Hübner	Germany	University of Applied Sciences, Osnabrück	micro - university programme	nurses	Continuing Education (curriculum)	eLearning platform
8	Sabu K M	India	Manipal University	micro - university programme	health information management	Masters (curriculum)	predominantely face-to-face
9	Rachelle Kaye	Israel	Assuta	meso - hospital	interprofessional	Continuing Education (principles of the curriculum and curriculum)	partly online
10	Juris Bārzdiņš	Latvia	University of Latvia	micro - university programme	physician, nurse	all levels (educational measures are proposed)	n/a
11	Omotayo Omojola	Nigeria	HISN Nigeria	macro - country	interprofessional	Continuing Education (need and common practice)	eLearning platform
12	Ann Kristin Rotegård	Norway	Oslo University Hospital/University of Oslo	decision support system	nurses	Continuing Education	software
13	Anne Moen	Norway	Oslo University Hospital / Institute for Health and Society	Massive Open Online Course (MOOC)	interprofessional	Bachelor and Masters (curriculum of nursing and medicine not informatics)	MOOC
14	Paulino Souza, Alexandrina Maria Ramos Cardoso	Portugal	Escola Superior de Enfermagem do Porto	macro - country	nurses	Bachelor and Masters (recommendations)	n/a
15	Taghreed Justina	Saudi Arabia	King Saud bin Abdulaziz University for Health Sciences	micro - university programme	interprofessional	Continuing Education (curriculum)	not yet, in planning
16	Helena Blažun Vošner	Slovenia	University of Maribor	micro - university programme	nurses, physicians and patients	educational measures in planning (part of a R&D project on eHealth/mHealth)	no information
17	Jan Florin	Sweden	Dalarna University	micro - university programme	nurses	Bachelor and Masters (curriculum)	blended learning
18	Paula Procter	UK (England)	Sheffield Hallam University	micro - university programme	interprofessional	Bachelor and Masters (curriculum)	fully online
19	Theofanis Fotis	UK (England)	School of Health Sciences, University of Brighton	micro - university programme	nurses and widwifes	Masters (curriculum)	blended learning
20	Siobhán O'Connor	UK (Scotland)	Edinburgh Napier University	micro - university programme	nurses	Bachelor (principles of the curriculum and curriculum)	some online elements
21	Jessica Liston	USA (California)	Sutter Maternity and Sugery Center	meso - hospital	nurses	Continuing Education (being developed)	no information
22	Josette Jones	USA (Indiana)	Indiana University - Purdue University Indianapolis	micro - university programme	interprofessional	training for students and health professionals (curriculum)	all types of teaching modes

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

©HIMSS 2018–2019

#HIMSS19

Case Study Recruitment



The EU*US project received funding from the European Union's Horizon 2020 research and innovation programme under Grant Agreement No. 727552
EUUSEHEALTHWORK

©HIMSS 2018–2019

Case Study Methods

- Official letters of invitation issued for formal acceptance
- 2 month timeline, exemplar case study and case study template shared with authors
- Draft case study submitted by authors
- Four internal rounds of reviews by University of Applied Sciences Osnabrück, Germany and TIGER Leadership
- Additional review by HIMSS Clinical Informatics staff and TIGER Committee members
- Final Review by TIGER staff before acceptance of finalized case studies
- Alignment with major gap areas identified from EU*US eHealth Work Survey

The EU*US project received funding from the European Union's Horizon 2020 research and innovation programme under Grant Agreement No. 727552
EUUSEHEALTHWORK

©HIMSS 2018–2019

Case Study Highlights

- Reflect on-the-ground realities, challenges, deficiencies and needs
- Propose remedies and identify concepts and/or solutions to bridge gaps and overcome challenges in key areas.
- Examples of successes and best practices in education & training, skills preparation, competency assessment/workforce development
  - ✓ 22 completed studies with 50 contributing authors/co-authors
  - ✓ 14 studies from Europe representing 10 European Union States
- Additional Global case studies from:
  - Asia and the Middle East (Israel, India and China)
  - North America (Canada, United States)
  - Africa (Nigeria)

The EU*US project received funding from the European Union's Horizon 2020 research and innovation programme under Grant Agreement No. 727552
EUUSEHEALTHWORK

©HIMSS 2018–2019

#HIMSS19

HIMSS19

TIGER International Recommendations Framework 2.0

#HIMSS19

US Case Study: Indiana University

EU*US eHealth WORK
Measure Inform Educate Advance

EU*US eHealth Work Project
***Author*: Josette Jones**

Module-based flexible workforce training program with 21 one-credit modules **for anyone who needs training in health informatics**, in particular students from health professional programs (e.g. physicians, nurses, public health), professional health care staff members (e.g. from patient centred medical homes, community health centres).

Identify clinical decision support (CDS) tools

Perform clinical data and process modeling

Determine use cases for CDS tools

Understand ensuring technical security

EHR development and implementation

Understand systems testing

Analyze how to develop and implement a CDS tool compliant to Meaningful Use

Describe the processes of developing/selecting, preparing, implementing and evaluating an EHR system

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

©HIMSS 2018–2019

HIMSS19

TIGER Recommen-dations Frameworks 1.0 and 2.0

#HIMSS19

Israeli Case Study: Assuta Med Centers

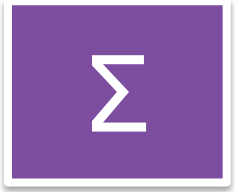
EU*US eHealthWork Project

Authors: Rachelle Kaye, Liat Todris, Rama Phillips

The main drivers at Assuta Medical Centers, the largest private hospital system in Israel, for establishing **continuing education** at basic, intermediate and advanced levels is to improve the quality of care. It is meant to **reach all professionals** within Assuta. Insights into clinical performance are needed to develop a high quality of care, hence, data **analytical skills** are required to make use of EHR and other electronic data.

Perform digitally supported research and database research

Understand and interpret results



Perform data analytics

Design database for research purposes, on-going management and patient care improvement

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

©HIMSS 2018–2019

HIMSS19

TIGER Recommen-dations Frameworks 1.0 and 2.0

#HIMSS19

Baltic Case Study: Laurea, Arcada, Red Cross Medical College

EU*US eHealthWork Project

Authors: Outi Ahonen, Jonas Tana, Gun-Britt Lejonqvist, Marge Mahla, Sanita Marnauza, Elina Rajalahti

The curriculum developed by a Finish, Latvian and Estonian university, is **multi-professional** and combines health and welfare with IT and service design. In the three study units (15 credit points), future professionals from different fields of study (IT, social care, economics and health care) are developing their own unique competencies according to the **pedagogical principle "learning by developing"**.

Understand ethical theories, safety procedures, principles and laws affecting digital health and welfare as well as customer privacy

Ethics

Have the skills to practice ethical and high quality customer service taking responsibility for the safety and integrity of the client

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

©HIMSS 2018–2019

HIMSS19

TIGER Recommen-dations Frameworks 1.0 and 2.0

#HIMSS19

Conclusions

The TIGER International Recommendation Frameworks of Core Competencies in Health Informatics 1.0 and 2.0 are based **on a proven methodology** and integrate global findings on priorities and local exemplar case studies.

1) Inter-professional education is **possible and necessary** particularly regarding common top areas: communication, leadership, ethics, quality & safety management, documentation and care processes & IT integration

2) Emerging fields in health informatics are **data analytics** and **medical technology / assistive technology** (which includes robotic).

©HIMSS 2018–2019

Take Home Message

Health informatics education
is at the heart of the
quality of care* and *transforming healthcare

through I & T

because I & T

***empowers* the agents of change,**
***the people*!**

©HIMSS 2018–2019

References

- Hübner U, Shaw T, Thye J, Egbert N, de Fatima Marin, Chang P, O´Connor S, Day K, Honey M, Blake R, Hovenga E, Skiba D, Ball MJ. Technology Informatics Guiding Education Reform (TIGER) – An Internationale Recommendations Framework of Core Competencies in Health Informatics for Nurses. Methods Inf Med 2018; 57(Open 1):e30-e42. doi.org/10.3414/ME17-01-0155.
- Egbert N, Thye J, Hackl WO, Müller-Staub M, Ammenwerth E, Hübner U. Competencies for nursing in a digital world. Methodology, results, and use of the DACH-recommendations for nursing informatics core competency areas in Austria, Germany, and Switzerland. Inform Health Soc Care. 2018:1-25. doi: 10.1080/17538157.2018.1497635.
- Thye J, Shaw T, Hüsers J, Esdar M, Ball M, Babitsch B, Hübner U. What Are Inter-Professional eHealth Competencies? Stud Health Technol Inform. 2018;253:201-205.
- O'Connor S, Hübner U, Shaw T, Blake R, Ball M. Time for TIGER to ROAR! Technology Informatics Guiding Education Reform. Nurse Education Today 2017;58:78-81. doi: 10.1016/j.nedt.2017.07.014.
- Carayon P, Du S, Brown R, Cartmill R, Johnson M, Wetterneck TB. EHR-related medication errors in two ICUs. J Healthc Risk Manag. 2017 Jan;36(3):6-15. doi: 10.1002/jhrm.21259.
- Gephart S, Carrington JM, Finley B. A Systematic Review of Nurses' Experiences With Unintended Consequences When Using the Electronic Health Record. Nurs Adm Q. 2015;39(4):345-56. doi: 10.1097/NAQ.0000000000000119.

#HIMSS19

©HIMSS 2018–2019

TIGER and Project Links

- HIMSS TIGER Initiative: https://www.himss.org/professionaldevelopment/tiger-initiative
- International Competency Synthesis Project: https://www.himss.org/professional-development/tiger-initiative/tiger-international-informatics-competency-synthesis-project
- EU*US eHealth Work Project: http://ehealthwork.eu

HOCHSCHULE OSNABRÜCK
UNIVERSITY OF APPLIED SCIENCES

#HIMSS19

©HIMSS 2018–2019

Questions? Thank You!

Please do not forget to complete your session evaluation

Ursula Hübner
u.huebner@hs-osnabrueck.de

Beth Elias
beth.elias@scranton.edu

Toria Shaw, TIGER Liaison
tshaw@himss.org

Find us on Twitter:
AboutTIGER
#tigersightings #tigervle

eHealthWork

The EU*US eHealth Work Project received funding from the European Union's Horizon 2020 research and innovation programme under Grant Agreement No. 727552 EUUSEHEALTHWORK

©HIMSS 2018–2019