2022臺北榮民總醫院國際醫學教育研討會
International Symposium of Medical Education at Taipei Veterans General Hospital

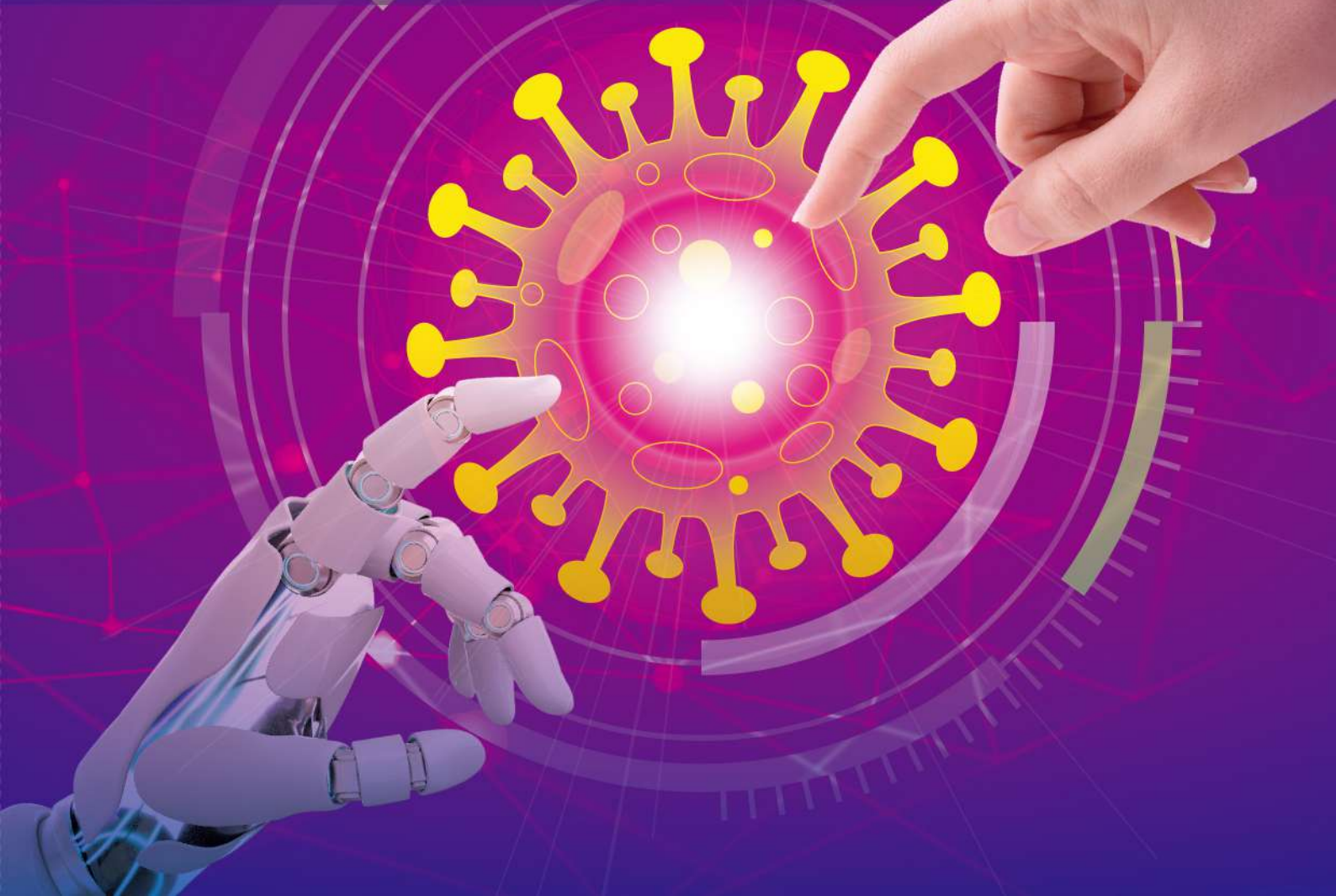
醫教跨域新解方
科技賦能創新應用

Interprofessional Education: Will the Metaverse Reshape the Vein of Medical Education

時間 / 地點	臺北榮民總醫院
2022.6.17（五）	致德樓第一會議室
2022.6.18（六）	醫療創新中心CiC（第三門診九樓）

主辦單位：臺北榮民總醫院

協辦單位：國立陽明交通大學醫學院 / 醫學系　CiC 醫療創新中心



醫教跨域新解方
科技賦能創新應用

Interprofessional Education:
Will the Metaverse Reshape the Vein of Medical Education

Content

序

Taipei Veterans General Hospital Superintendent Professor Wei-Ming Chen

We have been honored and very delighted to invite globally-renowned professionals to participate in the international symposium of medical education in Taipei Veterans General Hospital for over 10 years or so. Due to their contribution, we are able to present the international-wise and newly techniques and theories in modern medical education. Being the superintendent of TVGH, one of the greatest interests of mine is to create an environment embedding the latest innovations and ideas for our staff and watch them grown; so much so we have invited many inter-professional experts to share their research efforts for our healthcare workers in every year and there is no exception this year. We will look forward to all the insightful opinions and interactions in the symposium.

Taipei Veterans General Hospital Vice Superintendent Professor Yung-Yang Lin

Despite the everlasting COVID-19 wave has affected Taiwan for two and a half years, the development of medical education cannot be deferred. Instead, it requires an AI-coated transformation in the fight of high-speed mutated viruses and other unknown pandemics. We will be soon in need of qualified personnel to deal with remote clinical practices and medical training system. That is why we will keep seeking for collaboration with international professionals regarding medical trainings, for which we expect the conference inspire some advanced and constructive ideas for our students and audiences online.

National Yang Ming Chiao Tung University Dean of College of Medicine, Professor Chen-Huan Chen

Our medical school has faced a great deal of challenges in educating medical students in the pandemic years. We are dealing with a fundamental change in the clinical education; for example, the challenges could be either in bedside teachings or inpatient practices. Fortunately, we have had many years of experience in leading changes with prominent professionals and physicians. Together with the aid of TVGH and its affiliated institutions, I believe our medical school will chin up in order to fight the pandemic with our students and the nation.

序

Taipei Veterans General Hospital
Director of Department of Medical Education, Professor
Ying-Ying Yang

To operate a teaching hospital, hospital management and medical education must be taken into consideration at the same time. It is a dynamic system that includes members of medical students, healthcare workers and patients. A system that displays practical outcomes on a daily basis and where healthcare workers have experienced formal trainings from pre-hospital school training, internship, to bedside practices. In Taipei Veterans General Hospital, we provides a service that traces the learning history of our personnel for documenting their various occupations and training levels in hospitals, at schools, and almost everywhere in cyber activities. Meanwhile, all learning activities and history can also be recorded in a physical manner. Nevertheless, I reckon the effort put in a business of education will not be light as a feather; we hope to explore more forms of "cloud" to make it easier and smarter by increasing international brainstorms.

Taipei Veterans General Hospital
Director of Division of Faculty Development
Associated Professor
Ming-Teh Chen

The international symposium of medical education has been one of the annual grand ceremonies for Taipei Veterans General Hospital. The scheme for this year is "Inter-professional Education - Will the Metaverse Reshape the Vein of Medical Education", in which many experts will gather together to discuss the potential combining the strength of computer science with that of the medical science to counter the threat of contemporary pandemic. Cross-field collaborations will become pervasive internationally thanks to advanced AI innovations. As the chief of DFD, I feel fully supported and grateful by my superiors and my staff for their devotion to the event.

June 17th, 2022

Venue: 1st Conference Room, Chih-Teh Building

Time / 時間	Topic / 題目	Speaker / 演講者	Moderator / 座長
08:20-08:50	Registration 報到		
08:50-09:00	Opening Remarks 開幕致詞	Chien-Jen Chen, Former Vice President 前副總統 陳建仁 院士 Wei-Ming Chen, Superintendent, Taipei Veterans General Hospital 臺北榮民總醫院 陳威明院長 Chi-Hung Lin, President, National Yang Ming Chiao Tung University 國立陽明交通大學 林奇宏 校長	
09:00-09:20	【Session I】Human-Based Medicine in The Digital Age Human-Centered AI Healthcare Solutions	Ethan Tu, Founder Taiwan AI Labs 臺灣人工智慧實驗室創辦人 杜奕瑾 先生	Wei-Ming Chen, Superintendent Taipei Veterans General Hospital 臺北榮民總醫院 陳威明 院長
09:20-09:40	Artificial Intelligence and The Humanity of Care	Kirsten Ostherr, Director Medical Humanities, Rice University	Shan-Chwen Chang, Vice President National Taiwan University 國立台灣大學 張上淳 副校長
09:40-10:00	Rethinking The Human Through Digital Mental Health 從數位心理健康反思人	Hsuan-Ying Huang, Assistant Professor Department of Anthropology, The Chinese University of Hong Kong 香港中文大學人類學系 黃宣穎 助理教授	Chi-Hung Lin, President National Yang Ming Chiao Tung University 國立陽明交通大學 林奇宏 校長
10:00-10:30	Panel Discussion 綜合討論		
10:30-10:50	Coffee Break 茶敘		
10:50-11:10	【Session II】Technological Implementations in Clinical Practice Artificial Intelligence and Its Use in Healthcare	Craig Webster, Associate Professor Centre for Medical and Health Sciences Education, University of Auckland	Chi-Chen Lin, Head of the Joint Commission of Taiwan 財團法人醫院評鑑暨醫療品質策進會 林啓禎 董事長
11:10-11:30	How Virtual Therapeutics Will Revolutionize Medicine and Medical Educationn	Brennan Spiegel, Professor Medicine and Public Health and Cedars-Sinai Site Director Clinical and Translational Science Institute (CTSI)	Chi-Huo Lin, Chair Consultant I-SHOU University 義守大學講座顧問 林其和 教授
11:30-11:50	The Development of Online Learning Technologies for Science Education in Taiwan	Chen-Chung Liu, Professor Dept. of Computer Science and Information Engineering, National Central University 國立中央大學資訊工程學系 劉晨鐘 教授	Horng-Ren Yang, Chief Executive Officer Taiwan Medical Accreditation Council 臺灣醫學院評鑑委員 楊仁宏 執行長
11:50-12:20	Panel Discussion 綜合討論		
12:20-13:20	Lunch Break 中午休息		

Time / 時間	Topic / 題目	Speaker / 演講者	Moderator / 座長
13:20-13:40	**【Session III】Inter-Professional Personnel Training at Industry-Academia Collaboration** Improving Pharmacy Workforce Capacity and Capability: The Role of Interprofessional Education	**Sean D. Sullivan, Professor and Dean** School of Pharmacy, University of Washington	**Tzeng-Ji Chen, Superintendent** Taipei Veterans General Hospital Hsinchu Branch 臺北榮總新竹分院 **陳曾基 院長**
13:40-14:00	Cultivate Interdisciplinary Talents for Precision Aging Care: The Mechanism of International Courses and Certificate Integration 高齡精準照護跨域人才培育：國際課證合一機制	**Shu-Fang Wu, President** National Taipei University of Nursing and Health Sciences 國立臺北護理健康大學 **吳淑芳 校長**	**Hsing-Hwa Lu, Superintendent** Taipei Veterans General Hospital Taoyuan Branch 臺北榮總桃園分院 **盧星華 院長**
14:00-14:20	Clinical Immersive Experience in Nursing Cultivation 臨床沉浸感之擴增 - 醫護教育元宇宙	**Heng-Hsin Tung, Distinquished Professor** School of Nursing National Yang Ming Chiao Tung University 國立陽明交通大學護理學院 **童恒新 特聘教授**	**Tsung-Min Hu, Superintendent** Taipei Veterans General Hospital Yuli Branch 臺北榮總玉里分院 **胡宗明 院長**
14:20-14:50	Panel Discussion 綜合討論		
14:50-15:10	Coffee Break 茶敘		
15:10-15:30	**【Session IV】The Impact of Metaverse Upon Future Medical Education** Entrance to Metaverse: Innovative Applications and Services of AR Smart Glasses in Medicine 元宇宙關鍵入口：AR 智慧眼鏡在醫學的創新應用與服務	**Wen-Lung Liang, Chairman** Jorjin Technologies Inc. 佐臻科技公司 **梁文隆 董事長**	**Chen-Huan Chen, Dean** College of Medicine, National Yang Ming Chiao Tung University 國立陽明交通大學醫學院 **陳震寰 院長**
15:30-15:50	Construct The Smart Emergency Medicine Model Through Artificial Intelligence 建置急診智慧醫療發展模式	**Chien-Hwa Huang, Director** Dept. of Emergency Medicine National Taiwan University Hospital 臺大醫院 急診部 **黃建華 主任**	**Yan-Shen Shan, Dean** College of Medicine, National Cheng Kung University 國立成功大學醫學院 **沈延盛 院長**
15:50-16:10	Effects of The Transparency Course Managing System For Institution-Wide Continuous Medical Education (CME) 醫院用繼續教育管理系統暨導入雲端服務	**Ying-Ying Yang, Director** Dept. of Medical Education, Taipei Veterans General Hospital 臺北榮民總醫院 教學部 **楊盈盈 部主任**	**Yung-Yang Lin, Vice Superintendent** Taipei Veterans General Hospital 臺北榮民總醫院 **林永煬 副院長**
16:10-16:40	Panel Discussion 綜合討論		
16:40-16:50	Poster Awards 頒獎典禮		
16:50-17:00	Final Remarks 閉幕致詞	**Yung-Yang Lin, Vice Superintendent,** Taipei Veterans General Hospital 臺北榮民總醫院 **林永煬 副院長** **Ying-Ying Yang, Director,** Dept. of Medical Education, Taipei Veterans General Hospital 臺北榮民總醫院 教學部 **楊盈盈 部主任**	

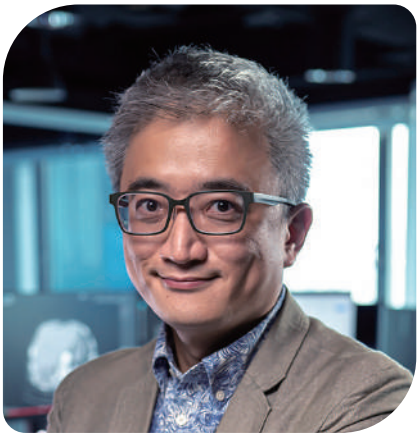
June 18th, 2022

Venue: Clinical Innovation Center, 9F, The 3th Outpatient Building

09:15-09:30	Registration 報到	
09:30-09:40	Opening Remarks 開幕致詞 國立臺灣大學 醫學院 倪衍玄 院長	
09:40-12:00 Concurrent Workshop 10:30-10:50 (Coffee Break)	【Workshop I】 The Uses of Virtual Patients in Teaching and Learning Clinical Reasoning	【Workshop II】 Clinical Data-based AI Medicine - Introduction to Quanta AI Cloud Platform
	【Facilitators】	
	高雄醫學大學後醫學系 / 高醫附醫小兒科 蔡淳娟 教授	廣達智慧醫療產品範疇 宋振華 協理
	國防醫學大學 / 三軍總醫院風濕免疫科 劉峰誠 副教授	廣達智慧醫療產品範疇 楊子翔 副處長
12:00	Farewell	

June. 17th, 2022
Main Conference

CURRICULUM VITAE



Ethan Tu
杜 奕 瑾

Citizenship

Taiwan

Current Position

國立台灣大學 資訊工程學系

Qualifications

台灣人工智慧實驗室
創辦人

Past Appointments

微軟公司人工智慧部門亞太區
首席研發總監

美國國家衛生研究院人類基因研究所程式
組長

批踢踢
創辦人

KEYNOTE LECTURE INFORMATION

以人為本的智慧醫療

當人工智慧遇上醫療，以 AI 訓練出優良的模型應用是打造精準健康的重要一環，前提是必須蒐集足夠的醫療數據，才能將機器學習優勢最大化。醫療產業如何不共享資料，也能共同訓練、驗證、測試與確效，並同時保障人權隱私？依循中立開源、可被信任的精神及原則，聯合學習 (Federated Learning) 將是促成「以人為本」的智慧醫療創新關鍵。

CURRICULUM VITAE

Kirsten Ostherr

Citizenship

United States of America

Current Position

Gladys Louise Fox Professor and Chair, Department of English, and Director of Medical Humanities, Rice University

Qualifications

2014
M.P.H., University of Texas School of Public Health, Houston, TX

2001
Ph.D., American Civilization, Brown University, Providence, RI

1997
M.A., American Civilization, Brown University, Providence, RI

Past Appointments

2008 - 2013
Associate Professor of English, Rice University, Houston, TX

2002 - 2008
Assistant Professor of English, Rice University, Houston, TX

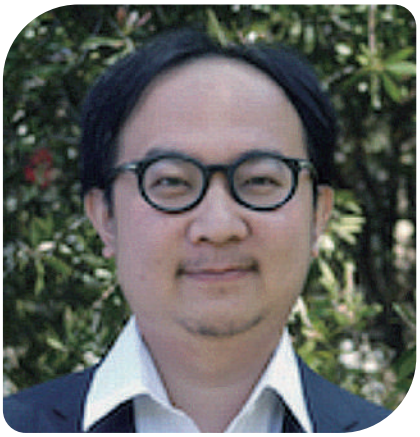
2001 - 2002
Postdoctoral Fellow, Faculty Seminar on Transnational Intersections of Gender, Race, Ethnicity, Class, and Sexuality,
Wesleyan University, Middletown, CT

KEYNOTE LECTURE INFORMATION

"Artificial Intelligence and the Humanity of Care"

Artificial intelligence (AI) is being used in a wide range of healthcare settings, often without the awareness of patients or doctors, and with little transparency or ethics oversight. This recent addition to the technological armamentarium of medicine has given rise to concerns about algorithmic bias and has prompted debates about the changing role of human clinicians in the evolving ecosystems of digital health. Yet, research on AI has also shown that it sometimes outperforms human clinicians on specific diagnostic tasks, possibly improving health outcomes for patients. For this reason, some researchers have argued that AI could augment the capacities of physicians and increase their availability to provide empathy and other uniquely human forms of care to their patients. Might AI and other advanced computational health tools create the possibility for new forms of humanity in medicine? This talk will explore several concrete examples of AI use in healthcare, with a focus on social determinants of health and health equity. Prof. Ostherr will explore the questions: What would it take for AI to be "ethical," in a society that is still shaped by inequity, discrimination and disparate access to care? What methods can medical and health humanities provide to help create a more humane and just healthcare future? And, how might we reimagine health technology with ethics and equality truly at the center of the design process?

CURRICULUM VITAE



Hsuan-Ying Huang

Citizenship

Taiwan

Current Position

Assistant Professor, Department of Anthropology,
Chinese University of Hong Kong

Qualifications

MD
PhD

Past Appointments

Postdoctoral fellow
Australian National University

Resident psychiatrist
Department of Psychiatry,
National Taiwan University Hospital

Resident psychiatrist
Taoyuan Mental Hospital

KEYNOTE LECTURE INFORMATION

Rethinking the Human through Digital Mental Health

The rapid development of digital technologies over the past several decades has greatly transformed the landscape of mental health care. The trend has become even more conspicuous recently due to the COVID-19 pandemic. While face-to-face interaction becomes unlikely under various control and mitigation measures, a variety of digital technologies offer alternative solutions to people who are in need of help, and very quickly these technologies are widely accepted by professionals and the public. In this presentation, I will draw on literature review and my own ethnographic research in China to introduce some of the recent developments in the domain of digital mental health. I will use this opportunity to reflect on the impacts of these new technologies on health care. Focusing on the most fundamental level of care, that is, human-to-human encounter and relationship, I will explore the problems and challenges brought by technologies that are often perceived as convenient and accessible.

CURRICULUM VITAE

Craig Webster

Citizenship

New Zealand

Current Position

Associate Professor, School of Medicine,
University of Auckland, New Zealand

Qualifications

PhD
MSc (1st class), BSc

Past Appointments

Associate Professor
2019 onwards – Centre for Medical and Health Science Education and Department of Anaesthesiology, School of Medicine, University of Auckland

Senior Lecturer
2012 - 2018 – Centre for Medical and Health Science Education and Department of Anaesthesiology, School of Medicine

Senior Research Fellow
2010 - 2012 – Centre for Medical and Health Sciences Education and Department of Anaesthesiology, School of Medicine

KEYNOTE LECTURE INFORMATION

Artificial Intelligence and its use in healthcare

Artificial intelligence (AI) is typically defined as the ability of computers to perform tasks normally requiring human intelligence. Most applications of AI in healthcare involve disease diagnosis based on patient data or imagery. The complexity of the data analysis involved leads to highly non-transparent algorithms, particularly when machine learning and neural networks are used. However, AI does not use diagnostic rules in the human sense, which means that the AI has no contextual understanding of what it is doing or what its diagnosis means, hence cannot offer any genuine explanation of how a diagnosis is arrived at. It can, therefore, be difficult for clinicians to be sure that an AI diagnosis is correct or reliable without an understanding of the steps involved. While recent attempts to create so-called explainable AI systems address this problem to some degree by requiring the AI algorithm to highlight the parts of a medical image involved in the diagnosis, the use of AI can occasionally lead to catastrophically incorrect or bizarre results.

Most clinicians would like AI systems to be transparent and explainable, while at the same time worry about AI taking their jobs. At least for the foreseeable future, due to the complexity of AI algorithms and the inability of AI to deal with the context of patient care, AI is unlikely to become genuinely transparent or explainable. Human doctors remain skilled in dealing with the context of patient care, therefore making AI an ideal clinical decision support tool or clinical assistant.

CURRICULUM VITAE

Brennan Spiegel, MD MSHS

Citizenship

USA

Current Position

Professor of Medicine and Public Health

Qualifications

MD
MSHS

Past Appointments

Associate Professor
David Geffen School of Medicine at UCLA

Director
UCLA Gastroenterology Fellowship Program

Section Chief
Education & Training, UCLA Division of Digestive Diseases

KEYNOTE LECTURE INFORMATION

How Virtual Therapeutics will Revolutionize Medicine and Medical Education

Description of talk:

Not so far in the future, in lieu of prescribing another pill, clinicians might prescribe a virtual beach vacation to ease aches and pains. Doctors might offer scenic tours of Icelandic fjords to reduce procedural anxiety. Gastroenterologists might immerse IBS patients in a virtual behavioral therapy clinic to manage visceral pain. It's all starting to happen now because of virtual reality (VR). For decades, scientists in elite universities have been quietly discovering the surprising health benefits of VR for ailments ranging from burn injuries, to stroke, to acute stress. Over 10,000 studies reveal that VR has an uncanny ability to lower pain, calm nerves and boost mental health without requiring pharmacotherapy. But the technology has been too expensive, unreliable, and unwieldy for the research to translate beyond the pages of academic journals and doctoral dissertations… until now. Explosive advances in delivering low-cost, portable and high-quality VR has spawned a new field the FDA now calls Medical Extended Reality, or MXR. In this lecture, Dr. Spiegel will describe frontline stories of using VR in over 3000 patients at Cedars-Sinai Medical Center, and will review his lab's latest clinical research, including a recent randomized controlled trial testing VR in the hospital setting, a new virtual clinic for patients with IBS, and a study of VR for sphincter of Oddi dysfunction, among other conditions.

CURRICULUM VITAE

Chen-Chung Liu

Citizenship

Taiwan

Current Position

Chair Professor

Qualifications

Ph.D
Department of Computer Science and Information Engineering,
National Central Univesity

Past Appointments

Assistant Professor
Yuan-Ze University

KEYNOTE LECTURE INFORMATION

The development of online learning technologies for science education in Taiwan

Online learning has become an integral pathway to learning that overcomes the distance caused by time and location constraints as well as challenges posed by diseases such as the COVID-19 pandemic. This talk will introduce our work on the development of an online platform, CoSci **(https://cosci.tw/)**, which provides over 100 collaborative simulations/games that support collaborative science learning. Computer simulations/games have been applied to facilitate modeling-based learning activities. In particular, problem-solving simulation games, which combine science phenomena with challenging tasks, are increasingly applied to help students explore the features of simulations in many disciplines. However, how computer simulations/games should be effectively integrated into science curricula in regular classrooms is challenging for teachers. Extensive studies have indicated that learning with technologies is time consuming and often adds too much complexity for teachers. The orchestration issue, which refers to the pedagogies empowered by technologies an educator may adopt to engage students in activities conducive to learning in classrooms, becomes critical to use simulations/games in regular science classrooms. We have conducted multiple studies to design effective pedagogies with the simulations/games on CoSci platform that can be feasibly implement in school science classrooms. Classroom studies were also conducted to understand how the new simulations/games can be used in regular classroom settings to understand the design consideration of computer simulations/games in supporting classroom science learning. Several design principles including the minimalism (less is more) principle and the teacher-led collaboration principle and how these pedagogical designs impact student scientific literacy will be discussed in this talk.

CURRICULUM VITAE

Sean D. Sullivan, PhD

Citizenship

Seattle, WA, USA

Current Position

Professor and Dean, School of Pharmacy,
University of Washington, Seattle, WA

Qualifications

BScPharm, MSc, PhD

KEYNOTE LECTURE INFORMATION

Improving Health Workforce Capacity and Capability: The Role of Interprofessional Educatione

Complex and interdependent healthcare systems need trained health care professionals who understand a wide range of topics. To achieve this, healthcare training programs in the US have evolved to place more emphasis on interprofessional education (IPE), without sacrificing discipline specific instruction. Indeed, some health care professions in the US have curricular requirements for IPE dictated by accreditation agencies. At the University of Washington, we have developed a coordinated and sustainable organizational structure and curricular model for IPE jointly with the Schools of Dentistry, Medicine, Nursing, Public Health and Social Work. The purpose of this session is to describe our model and discuss the role and future impact of interprofessional education on healthcare workforce development and capacity building.

CURRICULUM VITAE

Shu-Fang, Vivienne, Wu

Citizenship

Chiayi, Taiwan

Current Position

Distinguished Professor & President, National Taipei University of Nursing and Health Sciences

Qualifications

RN
PhD, FAAN

Past Appointments

Vice President
National Taipei University of Nursing and Health Sciences

Director of Research Center for Healthcare Industry Innovation

Director of Research and Development Center

Chair of Department of Gerontological Health Care

KEYNOTE LECTURE INFORMATION

Cultivate interdisciplinary talents for precision aging care: the mechanism of international courses and certificate integration

In order to respond to industry needs in the aging society, NTUNHS established the base in 2019 to cultivate talents for precision aging care. The cooperation between industries, government and schools was carried out by 7 international and local corporate bodies, such as Taipei Veterans General Hospital Center for Geriatrics and Gerontology, Institution of Traditional Medicine in NYCU, Shin Kong Wu Ho Su Memorial Hospital, Hondao seniors' well-being Foundation, as well as 7 school partners. Also, the mechanism of international courses and certificate integration for precision aging care was designed by introducing Australian long-term care certificate/courses and cooperating with TAFE, the Australian vocational and education training institute. Throughout the process of educating, assessing, and certificating, students can develop the ability for worldwide connection and have opportunities to work in aging industries in more than 20 countries. While outlooking the development of health industry, this year NTUNHS focuses on cultivating smart medical reablement talents, building up the mechanism by connecting processes of research, training, certificating and employment. Currently, the talent cultivation base contains professional classrooms, aging care rooms, reablement labs and administrative service areas, which is well-equipped and consistent with industries. The base, up to 150 level ground, also serves as a national training and examination center to provide the best educating, training and testing area for precision aging care, which certainly benefits to talents of precision health industry in Taiwan.

CURRICULUM VITAE

Tung, Heng-Hsin

Citizenship

Taiwan

Current Position

Distinguished Professor / Director
Department of Nursing, National Yang Ming Chiao Tung University

Qualifications

DNP
Health Systems Executive Leadership Doctor of Nursing Practice Nursing

PhD
Nursing

Master
Nursing administration Family Nurse Practitioner

Past Appointments

Professor
Nursing School, National Taipei University of Nursing and Health Science

Director
Performance examination center, National Taipei University of Nursing and Health Science

Associated Dean / Director
Academic affair /Teaching excellent center, National Taipei University of Nursing and Health Science

KEYNOTE LECTURE INFORMATION

Clinical immersive experience in nursing cultivation

Virtual reality (VR) can provide an artificial environment to create immersion which facilitate and increase concentration and interactivity. This lecture is expected to bring renovation teaching strategies and professionalism to nursing education. Nursing education integrates knowledge and skills. Advanced practice nurses who need more-advanced interactive and clinical experience to cultivate the high levels of professionalism necessary to make health care decisions and manage health conditions appropriately. First, the lecture describes the contents of simulation-based education and virtual simulation technology. In addition, steps and applications of simulation-based education in nurse education from nursing student to advanced practice nurse are illustrated. Lastly, examples of virtual simulation technology applications in nursing education are reported.

The digital teaching in the new normal of the epidemic and is an ongoing and irreversible future trend. pandemics may be viewed as tipping points in terms of willingness to embrace renovation and innovation, as using technology properly has the potential to assist educators and students to achieve learning goals and sustain teaching quality. The use of online synchronous or asynchronous or hybrid online with offline to deliver knowledge has gradually matured. Practical experience in real clinical side are difficult to replace by other means; therefore, VR can only partially close to real clinical experience or reduce the sense of clinical reality shock. The faculty, who facilitate interaction of learning and debrief during learning process through case scenario, is the key sprite of VR use for nursing education.

The learning objectives of this lecture include:

(1) Understand the background of immersive simulation-based nursing education

(2) Summarize the important points of demonstration of the VR examples

(3) Understand how to conduct immersive nursing education (VR)

(4) Understand the challenges of mix (online-offline) method for nursing education

(5) Describe the possible problem-solving strategies to overcome the challenge

(6) Describe at least three online software

(7) Describe future perspective

CURRICULUM VITAE

Tom Liang

Citizenship

Taiwan

Current Position

Jorjin Technologies Inc. Chairman

KEYNOTE LECTURE INFORMATION

Entrance to Metaverse, innovative applications and services of AR Smart Glasses in medicine

As a trend product of 5G+AR future new technology, AR smart glasses will replace mobile phones and connect people, objects and digital content with a new concept of brain-computer interface (Brain-Computing Interface), realize the interconnection of all things, and establish intuition in space. The interaction mode between virtual contents and reality is an important entrance to the metaverse. AR smart glasses have also brought many innovative applications in the medical field, including smart care, telemedicine, simulation training, and surgical navigation.

CURRICULUM VITAE

Chien-Hua Huang
黃 建 華

Citizenship

Taiwan

Current Position

Chairman and Clinical Professor, Department of Emergency Medicine & Department of Internal Medicine, Medical College, National Taiwan University

Qualifications

1986.08 - 1993.07
M.D; Medical College, National Taiwan University, Taipei, Taiwan

2002.12 - 2004.10
Post-Doc Researcher, Baylor College of Medicine, Houston, Texas

2001.08 - 2007.01
PhD; Graduate Institute of Clinical Medicine, Medical College, National Taiwan University, Taipei, Taiwan

Past Appointments

2015.08 - 2016.07
Chair of Taiwan Advanced Cardiac Life Support Joint Committee

2016.08 - 2019.07
Director, Emergency Intensive Care Unit, Department of Emergency Medicine and Department of Internal Medicine, National Taiwan University Hospital

2017.08 - 2019.07
Chief, Division of Critical Care, Department of Emergency Medicine and Department of Internal Medicine, National Taiwan University Hospital

KEYNOTE LECTURE INFORMATION

Construct the Smart Emergency Medicine Model Through Artificial Intelligence

The rapid development and growing of machine learning and artificial intelligence bring the new models in medical researches and clinical services. Urgent and complicated evaluation, triage, diagnosis and management are key issues in daily emergency medical service of all levels of hospitals. Critical care takes a lot of information to make rapid and optimal decisions for differentiating the emergency status and life-saving treatment for patients in emergency department. Machine learning and artificial intelligence provides good chances for improving the emergency services when facing the large amount of patient's vital signs, clinical symptoms/signs, laboratory data and examination reports. There are some successful models reported in medical society for emergency services, including trauma evaluation, prediction of acute ST elevation myocardial infarction in electrocardiography, etc. We construct the smart emergency model, which covers different processes from patients coming into emergency room to be discharges from hospital. The models will be presented in the presentation.

CURRICULUM VITAE

Ying-Ying Yang

Citizenship

Taiwan

Current Position

Chief, Department of Medical Education, Taipei Veterans General Hospital

Qualifications

2017 - Now
TSSH, executive director; TAME, Deputy Secretary-general

2010 - Now
TAME PGY mentors / committee member, T VGH "PGY clinical Instructor Training program"; Ministry of Examination, OSCE committee member

2014 - now
Organizers for basic Clinical Skills

2009
(BCS) curriculum of National Ying-Ming Chiao Tung University

2008 - 2011
Liver Unit, Department of Medicine, University of Calgary, Calgary, Canada, post PhD

2004 - 2007
Yang-Ming Medical school, Taipei, Taiwan, MPH of and Public Health & PhD of Physiology

Past Appointments

2002 - 2005
Attending Physician of General Medicine, Taipei Veterans General Hospital

2006 - present
Professor, School of Medicine, National Yang-Ming University

2014 - present
Professor, Institute of Clinical

2014 - present
Medicine, Department of Medicine, National Yang-Ming University

Awards

2011 - 2022
Institute for Biotechnology and Medicine Industry, SNQ*3; JCOT, HQOA 2021, Excellence in Teaching Award and research innovation, Taipei Veteran General Hospital, Yang-Ming University

2013
Wu Ta-Yu Memorial Award, National Science Council

2012
Taiwan Young Investigator award

2013
Academia Sinica, Taiwan Liver Disease prevention & treatment research foundation, outstanding research award

2012
The Taiwan Association for the Study of the Liver foundation, outstanding research award

2011 - 2015
Taipei Professor Lin Rung Yao foundation, research award
Taiwan Association of Medical Education, Best video award

KEYNOTE LECTURE INFORMATION

Effects of the transparency course managing system for institution-wide continuous medical education (CME)

In the operation of teaching hospitals, the goals of hospital operation and medical education must be taken into consideration at the same time. This makes "teaching" in teaching hospitals, it is necessary to create a diverse environment in which members can cover from students, employees to outsiders, and the types of learning need to be able to include pre-hospital, internship, and new to on-the-job training.

This system has implemented a digital clinical teaching and evaluation service platform in Taipei Veterans General Hospital. The service area includes the new training and on-the-job education of various staff of the main hospital, its 7 branch hospitals, and 2 entrusted hospitals. It also covers the learning activities of personnel of various occupations and training levels in hospitals and schools at home and abroad. The curriculum style includes physical and online, and its mixed type. All learning activities such as lesson preparation, class opening, release, training, electives, class attendance, verification, recording and evaluation, etc. can be carried out in an orderly manner.

The system integrates the three main functions of the teaching environment, starting management, learning activities and teaching assessment, and meets the five functional goals urgently needed for hospital teaching:

(1) Integrate a single sign-in mechanism for users from multiple organizations

(2) Simplified and intuitive course start and class process

(3) Reliable and comprehensive learning records

(4) Smooth evaluation and feedback mechanism

(5) More rigorous system maintenance and information security management procedures

We are well aware that building a huge system requires a proper planning process in order to succeed.

Therefore, in the process of developing the system, we constantly adjust the import procedure to reduce the impact on all users during the introduction of the new system and ensure the smooth transfer of the old system data. We believe that this covers the integration experience of general hospitals and branch hospitals of various sizes. After extraction and refurbishment, it is very suitable as a standard operating procedure for the introduction and replacement of teaching management systems in hospitals at all levels in Taiwan. Therefore, we have incorporated the import service into a part of the system technology transfer, and look forward to contributing to the teaching environment of Taiwan's hospitals.

June. 18th, 2022
Workshop I

The Uses of Virtual Patients in Teaching and Learning Clinical Reasoning

2022臺北榮民總醫院國際醫學教育研討會
International Symposium of Medical Education at Taipei Veterans General Hospital

CURRICULUM VITAE

Tsuen-Chiuan Tsai

Citizenship

Taiwan

Current Position

Professor of Department of Pediatrics, Kaohsiung Medical University Hospital

Qualifications

MD
China Medical University, Taiwan

PhD
University of Calgary, Canada

Past Appointments

Dean of Academic affair Attending physician
Department of Pediatrics, Kaohsiung Medical University Hospital, Kaohsiung Medical University, Taiwan

WORKSHOP INFORMATION

The Uses of Virtual Patients in Teaching and Learning Clinical Reasoning

Recommended Participants

Faculty or healthcare professionals who are interested in the education on clinical reasoning, or in the development of assessment modalities for clinical reasoning.

Participants who are interested in applying virtual technology in medical education.

Completion Message

At the end of the workshop, the participants will be able to:

1. Describe the key components leading to an accurate clinical diagnosis.
2. Identify the pros and cons of using virtual patients and standardized patients in clinical examination.
3. Select appropriate assessment tools, between virtual patients and standardized patients, for different test purposes in various clinical encounters.

Description

Diagnostic accuracy is one of the major determinants of healthcare quality and patient safety. As stressing the importance of competency-based medical education, assessment on clinical diagnosis plus the underlying reasoning have been considered essential, while being very challenging. Clinical reasoning is a complex system, which involves not only medical knowledge and knowledge structure, but also the problem-solving strategies that are applied. As the clinical skills should be best assessed in an authentic situation, standardized patients have been widely used in assessing candidates' capacities of making clinical diagnosis. Such a performance examination has been facing the challenges of cost/time, candidate number, consistency and various biases. As the advances of digital AI technology, virtual patient (VP) incorporating natural language processing (NLP) has been now introduced to simulate clinical encounters, and can be delivered to a large group for training or examination. During the pandemic outbreak, virtual patients continued to provide learning experience on cloud.

In this workshop, two learning modalities using virtual patients will be introduced, i.e., VP-PBL and cloud-based VP-PBL. Participants will be divided into two groups, rotating to have hands-on experience with the two modalities.

CURRICULUM VITAE

Feng-Cheng Liu

Citizenship

Taiwan

Current Position

Director and Associate Professor, Division of RIA, Department of Medicine, TSGH, NDMC

Qualifications

MD
National Defense Medical Center

PhD
Graduate Institute of Medical Sciences, NDMC, Taipei, Taiwan

Postdoc
Tokyo University Hospital

Past Appointments

Teaching Attending Physician
Department of General Medicine, Tri-Service General Hospital, Taiwan

WORKSHOP INFORMATION

The Uses of Virtual Patients in Teaching and Learning Clinical Reasoning

Recommended Participants

Faculty or healthcare professionals who are interested in the education on clinical reasoning, or in the development of assessment modalities for clinical reasoning.

Participants who are interested in applying virtual technology in medical education.

Completion Message

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June. 18th, 2022
Workshop II

Clinical Data-based AI Medicine - Introduction to Quanta AI Cloud Platform

2022臺北榮民總醫院國際醫學教育研討會
International Symposium of Medical Education at Taipei Veterans General Hospital

CURRICULUM VITAE

Chen-Hwa Song

Citizenship

Taiwan

Current Position

Associated Vice President

Qualifications

2000
Ph.D. Institute of Information Management, Nation Chiao-Tung Univ.

1994
BA. Information and Computer Engineering, Chung-Yuan Christian Univ.

Past Appointments

2021
Associated Vice President, Quanta Computer Inc.

2012
Senior Director, Quanta Computer Inc.

2010
Senior Director, Quanta Computer Inc.

WORKSHOP INFORMATION

Clinical Data-based AI Medicine - Introduction to Quanta AI Cloud Platform

Recommended Participants

Around 30 people, Educators and Health professionals from all professions with IT/Data Analytics background

Completion Message

Participants will enhance their understanding of the trends of smart medical technologies, fundamental medical AI and its application in the medical environments.

Description

Quanta Computer is a one of the Global Fortune 500 Companies and also one of the world's leading notebook manufacturers. Aside from our leadership position in notebook manufacturing business, we have extended our reach to cloud computing business, enterprise network solutions, mobile communications products, smart home products, autotronics, smart healthcare, IoT, and AI applications to proactively expand the integrated deployment of our operation and explore new business opportunities.

In the topic of smart medical, Quanta focuses on developing smart medical platforms base on its well-established AI, Cloud, and IoT technologies.

In this Talk, we'd like to share the R&D experience of Quanta's AI Cloud Platform in medical environment, which includes: 1). Body Care Platform, 2). Patient/Health Care Platform, 3.) AI medical Platform.

CURRICULUM VITAE

Robe Yang

Citizenship

Taiwan

Current Position

Director, Business Unit 12, Quanta Computer Inc.

Qualifications

2010
Ph.D., Department of Information Management, National Taiwan University, Taiwan.

2001
MBA, Department of Information Management, National Chi Nan University, Taiwan.

1998
BA, Department of Applied Chemistry, National Chiao Tung University, Taiwan.

Past Appointments

2020 - 2022
Director, Cloud Solution Division 2, Business Unit 12, Quanta Computer Inc.

2011 - 2020
Senior Manager, Cloud Solution Division 2, Business Unit 12, Quanta Computer Inc.

2010 - 2011
Deputy Director, Information Systems Office, National Taiwan University Hospital (NTUH).

WORKSHOP INFORMATION

Clinical Data-based AI Medicine - Introduction to Quanta AI Cloud Platform

Recommended Participants

Around 30 people, Educators and Health professionals from all professions with IT/Data Analytics background

Completion Message

Participants will enhance their understanding of the trends of smart medical technologies, fundamental medical AI and its application in the medical environments.

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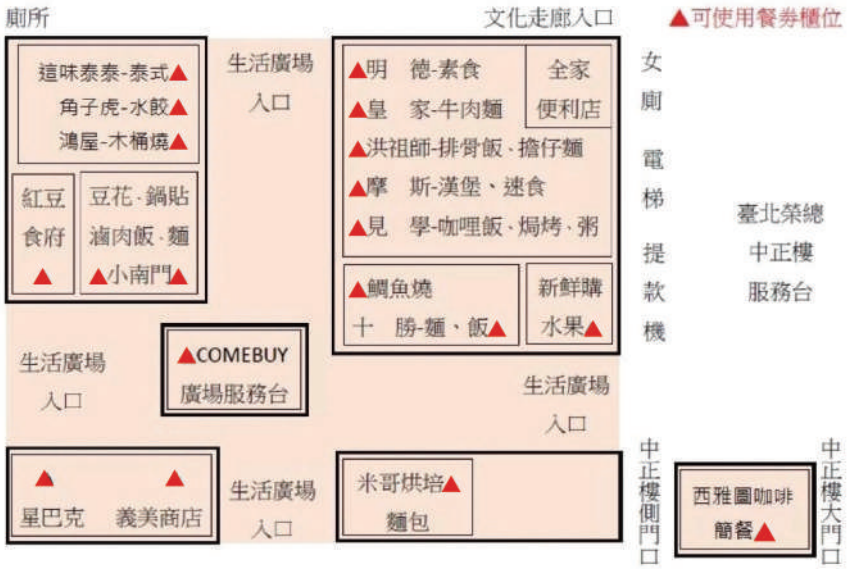
餐券資訊

6 月 17 日 (星期五) 整日專題演講活動提供學員中午餐券 (新台幣 100 元)，請持餐券前往 **中正樓一樓生活廣場美食街** 享用午餐。

註：憑餐券消費享 9 折優待，特價品除外，恕無法折現及找零，超額部分請自付現金，限 111 年 6 月 17 日當日使用。

本院平面指示圖

中正樓生活廣場櫃位指引圖



(全家便利店、杏一醫療、健康生活館無法使用)

Note

Note

2022 臺北榮民總醫院
國際醫學教育研討會

2022 International Symposium of Medical Education
at Taipei Veterans General Hospital

國際醫學教育研討會議網站
（演講簡報下載）