2024 ASAIHL Confernce, Tokyo, at Juntendo University
Jun 16-17, 2024
Conference Suchedule

June 16,2024(Sun)

	Room1	Room2	Room3	Room4	Room5	Room6
	1F Ogawa Lecture Hall	13F Memorial Hall	5F 5NS	6F 6NS	7F 7NS	B1F Collaboration Space
9:00						
	Opening Ceremony	Opening remarks Toshio Naito Mohammad Shatar bin Sabran Ninnat Olanvoravuth Opening presentation by the president Hiroyuki Daida				
10:00	Keynote Lecture 1 Chairs:Mai Suzuki Toshio Naito Speaker:Nobuhiko Horioka					
11:00	Keynote Lecture 2 Chairs:Yuki Uehara Toshio Naito Speaker:Maki Sakamoto		A-0 Education Chairs:Shuhei Yokoyama Naoya Ito			
12:00		Luncheon Seminar 1				
13:00	Country Report 1 Thailand Chairs:Naoya Ito, Hirotake Mori	X-1 Education Chairs:Hirohide Yokokawa Yosuke Sasaki	A-1 Data science Chairs:Akio Kanazawa Mai Suzuki	C-1 Health, medicine Chair:Yoshiro Hadano	B-1 Health, medicine Chair:Shuhei Yokoyama	Workshop1 A Model of STEAM Education in Medicine : Considering the "Game-making Process" Ayano Fukuda, Shunnen Rin, Nanako Ishii, Yukiyoshi Fukuda, Rikuto Munemura
14:00	Country Report 2 Hong Kong Chairs:Naoya Ito, Hirotake Mori	X-2 Technology innovation Chairs:Hirohide Yokokawa Yosuke Sasaki	A-2 Data science Chairs:Akio Kanazawa Mai Suzuki	C-2 Health, medicine Chair:Yoshiro Hadano	B-2 Health, medicine Chair:Shuhei Yokoyama	
15:00		Coffee break and networking				
16:00	Country Report 3 Malaysia Chairs:Yoshiro Hadano, Hirotake Mori	X-3 Education Chair:Yosuke Sasaki	A-3 Health, medicine Chairs:Akio Kanazawa Arisa Ito	C-3 Education Chair:Hirohide Yokokawa	B-3 Education Chairs:Mai Suzuki Simon Valenti	Workshop2 VR in medical education: multidisciplinary training tool for the geriatric care Dmytro Remez, Daria Krokva, Hirotake Mori, Yasuharu Yahagi, Yasuji Umeno
17:00	Country Report 4 Indonesia Chairs:Yoshiro Hadano, Hirotake Mori	X-4 Education Chair:Yosuke Sasaki	A-4 Health, medicine Chairs:Akio Kanazawa Arisa Ito	C-4 Education Chair:Hirohide Yokokawa	B-4 Education Chairs:Mai Suzuki Simon Valenti	
18:00						
19:00						

2024 ASAIHL Confernce, Tokyo, at Juntendo University
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Conference Suchedule

June 17,2024(Mon)

	Room1 1F Ogawa Lecture Hall	Room2 13F Memorial Hall	Room3 5F 5NS
9:00	Keynote Lecture 3 Chair:Yuji Nishizaki Speaker:Taro Shimizu		A-5 Technology innovation Chair:Taijyu Miyagami Joshua Michael Kin Jiang Lee
10:00	Keynote Lecture 4 Chair:Yoshiro Hadano Speaker:Takenori Inomata		A-6 Education Chair:Taijyu Miyagami Joshua Michael Kin Jiang Lee
11:00	Keynote Lecture 5 Chair:Hirotake Mori Speaker:Francois Niyonsaba	X-7 Data science Chairs:Daria Krokva Dmytro Remez	
12:00		Luncheon Seminar 2	
13:00	Country Report 5 Japan Chair:Yuichiro Yano		A-8 Technology innovation Chair:Yuichi Takahashi Yuichiro Mine
14:00	Country Report 6 Philippines Chair:Yuichiro Yano		A-9 Education Chair:Yuichi Takahashi Yuichiro Mine
15:00		Coffee break and networking	
16:00	Country Report 7 Taiwan Chiar:Mizue Saita		
17:00	Closing Ceremony Ninnat Olanvoravuth, Next conference organizer：Universitas Airlangga Toshio Naito		
18:00			
19:00			

Day 1 : Jun 16(Sun), 2024
Country Report

CR-1 Thailand	**AUGMENTED REALITY-BASED COMBINED PHYSICAL EXERCISE AND LANGUAGE INTERVENTIONS FOR ENHANCING EXECUTIVE FUNCTIONS AND LANGUAGE SKILLS IN THAI EFL UNIVERSITY STUDENTS: A PILOT STUDY** WANVIPHA HONGNAPHADOL
CR-2 Hong Kong	**Harmonising Data and Creativity: The PEDAL Project's Interdisciplinary Approach to Learning** IP, Kim HO
CR-3 Malaysia	**Assessing Leadership Capabilities: A Systematic Profiling Approach in Higher Education** Norazharuddin Shah Abdullah & Harshita Aini Haroon
CR-4 Indonesia	**IN BETWEEN DIGITAL DIVIDE AND DIGITAL LITERACY: NAVIGATING DATA SCIENCE FOR THE RISE OF INDONESIA'S INFORMATION SOCIETY** A. Safril MUBAH

Day 2 : Jun 17(Mon), 2024
Country Report

CR-5 Japan	**Teaching data science literacy for global citizens; A Case from Soka University** Minami Hattori
CR-6 Philippines	○○○○ Br. Bernard S. Oca FSC
CR-7 Taiwan	**Embracing Transformative Internationalisation: NTU's Journey in the Digital Age** **Jiun-Haw Lee**

Day 1 : Jun 16(Sun), 2024
Parallel Session 1

13:00 - 13:45 Venue: 13F

Sub-theme : Education **Chairs : Hirohide Yokokawa, Yosuke Sasaki**

X-1-1	**Technology Innovations For Education: The Need For Artificial Intelligence And Hyflex Learning Capacity Building For Educators** Ismi Arif Ismail
X-1-2	**The Cotutelle Program: A Model for International Collaboration in Doctoral Education** Azadeh Shadmehr
X-1-3	**UNVEILING THE LEARNING MANAGEMENT SYSTEM ACCEPTANCE AMONG SELECTED UNIVERSITY STUDENTS: A BLUEPRINT FOR AN ACTION PLAN** Frederick A. Inoncillo

13:55 - 14:40 Venue: 13F

Sub-theme : Technology innovation **Chairs : Hirohide Yokokawa, Yosuke Sasaki**

X-2-1	**Asynergistic paddy transformation project by institute of higher learning with the government, for the community, ensuring food security of the nation** Shahrul Razid Sarbini
X-2-2	**Engaging Minds: A Supportive Ecosystem for Gamification and Innovative Technology in Higher Education Institution** Kartini Abd Ghani
X-2-3	**INFORMED MOBILITY STRATEGIES IN METRO MANILA AFTER THE PANDEMIC** Eva Aurora D Callueng

15:30 - 16:15 Venue: 13F

Sub-theme : Education **Chair : Yosuke Sasaki**

X-3-1	**Master's degree program in nursing informatics at Tehran University of Medical Sciences** Arpi Manookian
X-3-2	**Digital technology to enhance students' learning experience in science education** Kim Hung Lam
X-3-3	**Recent Advances in AI for Personalized Education: A Case Study from Chiang Mai University** Arnan Sipitakiat

16:25 - 17:10 Venue: 13F

Sub-theme : Education **Chair : Yosuke Sasaki**

X-4-1	**Collaborative International Joint Class cultures in broaden global engagement** Bambang S. Lukiswanto
X-4-2	**Revolutionizing Learning: The intersection of Education Technology, Shared Leadership and Mutual Assistance** Catherine Cheung
X-4-3	**Sustainable Innovations: The Role of Green Technology in Achieving Educational and Environmental Goals in Philippine Universities** GREG EMMANUEL BANIAGA

11:00 - 11:45 Venue: 5F

Sub-theme : Education **Chairs : Shuhei Yokoyama, Naoya Ito**

A-0-1	**The Power of ChatGPT and Prompt Engineering: Unlocking Ancient Chinese Wisdoms for Modern Business Management Education.** WINSLET T.Y. CHAN
A-0-2	**LEVERAGING TECHNOLOGY AND ONLINE RESOURCES IN CIVIL ENGINEERING EDUCATION: A COMMUNITY OF INQUIRY PERSPECTIVE** Andres Winston C. Oreta
A-0-3	**Wearable Fitness Devices and the Filipino Consumers: An Academic Review and Classification** Luz Suplico Jeong

13:00 - 13:45 Venue: 5F

Sub-theme : Data analysis **Chairs : Akiko Kanazawa, Mai Suzuki**

A-1-1	**DashFood: An Application Software Leveraging Retail Factors for Smarter and More Efficient Grocery Shopping**	Noime B. Fernandez
A-1-2	**News Coverage of Mainstream Online Newspapers in the Philippines Regarding Japan: A Text Mining Approach**	Rex P Bringula
A-1-3	**Eco-Social Network: Analyzing the Impact of Social Media on Environmental Awareness and Citizen Participation**	Mideth B. Abisado

13:55 - 14:40 Venue: 5F

Sub-theme : Data science **Chairs : Akiko Kanazawa, Mai Suzuki**

A-2-1	**A COMPARATIVE STUDY OF ACTIVATION FUNCTIONS IN THE CONTEXT OF A FEEDFORWARD NEURAL NETWORK FOR RICE GRAINS CLASSIFICATION**	Tidarut Areerak
A-2-2	**CLASSIFYING FIVE VARIETIES OF RICE USING IMAGE PROCESSING AND MACHINE LEARNING TECHNIQUES**	Sam-ang Panu

15:30 - 16:15 Venue: 5F

Sub-theme : Health, medicine **Chairs : Akiko Kanazawa, Arisa Ito**

A-3-1	**Exploring Varied Cognitive Aspects in Adult Telephone Interviews within Thai Contexts**	Watthanaree Ammawat
A-3-2	**Preliminary Insights into the Effectiveness of Senior Mentoring in Teaching Media Creation for Proper Inhaler Device Usage: A Study on 5th-Year Pharmacy Students' Project**	Karunrat Tewthanom
A-3-3	**Transforming Public Health Surveillance in the Philippines: Implementing the One Health Framework for Comprehensive Monitoring**	Mideth B. Abisado

16:25 - 17:10 Venue: 5F

Sub-theme : Health, medicine **Chairs : Akiko Kanazawa, Arisa Ito**

A-4-1	Hybrid training to improve healthcare providers' knowledge and attitude toward disease management in the primary care setting during Covid-19 pandemic.	Thanakamon Leesri
A-4-2	USING ARTIFICIAL INTELLIGENCE TO GENERATE SYNTHETIC IMAGES TO REPLACE ORGAN PHOTOGRAPHS ON REAL HUMAN FACES FOR FACIAL ANALYSIS APPLICATIONS	Jessada Tanthanuch
A-4-3	GENERALIZED LINEAR MODELS AND DOUBLE GENERALIZED LINEAR MODELS IN THE MODELING OF HEALTH BIOLOGICAL SIGNAL DATA	Amornrat Suriyawichitseranee

13:00 - 13:45 Venue: 6F

Sub-theme : Health, medicine **Chair : Yoshiro Hadano**

C-1-1	COMPARING STATISTICAL AND MACHINE LEARNING MODELS FOR ASSESSING BODY FAT PERCENTAGE USING BODY COMPOSITION DATA	Jessada Tanthanuch
C-1-2	PREDICTION OF ICU ADMISSION FOR COVID-19 INFECTED PATIENTS USING BINARY LOGISTIC REGRESSION ANALYSIS	Tidarut Areerak
C-1-3	An Intelligent Fall Detection Technique Using Convex Hull Analysis	Jessada Tanthanuch

13:55 - 14:40 Venue: 6F

Sub-theme : Health, medicine **Chair : Yoshiro Hadano**

C-2-1	Development of Low-Resourced Language Respiratory Symptoms Dataset from Social Media Posts Towards Public Health Surveillance	MIDETH ABISADO
C-2-2	Development and Validation Test of 3D-print based cerebrum mannequin for Anatomical learning devices	Nur Arfian
C-2-3	DIAGNOSING MAMMOGRAMS WITH REPRESENTATION LEARNING USING STACKED MODULES	Albert Silva

15:30 - 16:15 Venue: 6F

Sub-theme : Education **Chair : Hirohide Yokokawa**

C-3-1	**E-LEARNING METHOD TO SUPPORT FOURTH INDUSTRIAL REVOLUTION** Wilmy E. Pelle
C-3-2	**Exploring Student Satisfaction and Engagement through Gamification: A Pilot Study** Muhammad Shahzad Aslam
C-3-3	**Exploring the Landscape of ChatGPT, its Applications in Education, and Research: A Comprehensive Overview** Saima Nisar

16:25 - 17:10 Venue: 6F

Sub-theme : Education **Chair : Hirohide Yokokawa**

C-4-1	**A Critical Examination on Generative Artificial Intelligence in Legal Education: Limitations and Risks** Lucas, C. H. Chiang
C-4-2	**Evaluating E-Learning Systems Success: A Case of University X** Patrick S. Zeta
C-4-3	**Technological Advancements in Education at State Islamic University: A Case Study of UIN Alauddin Makassar, Indonesia** Serliah Nur

13:00 - 13:45 Venue: 7F

Sub-theme : Education **Chair : Shuhei Yokoyama**

B-1-1	**Interface Interactions and Mathematics Performance in a Personal Instructing Agent Exhibiting Synthetic Facial Expressions** Miguel Angelo A Tolentino
B-1-2	**Shaping the Future of Education with UBD's Innovative Lifelong Learning and Bachelor of Digital Science Programmes** Jose_Hernandez Santos
B-1-3	**Virtual Tracer of Students' Connection to Science Ideas of Social-Scientific Issues in Biochemistry Class** Erman Erman

13:55 - 14:40 Venue: 7F

Sub-theme : Education **Chair : Shuhei Yokoyama**

B-2-1	SELF-PRESENTATIONS OF FILIPINO MEDICAL PRACTITIONERS IN THEIR TELECONSULTATION MATERIALS ON FACEBOOK Leonardo O. Munalim
B-2-2	Paghalungkat ng Mga Ugat: Ang Paggalugad at Pagsipat sa Pagpili ng Mga Artikulong Nailathala sa Dalumat E-Journal mula 2010 hanggang 2022 Jessica May Reyes
B-2-3	UE-CLAMS: University of the East - Computer Laboratory Asset Management System Chazz C. Manubay

15:30 - 16:15 Venue: 7F

Sub-theme : Education **Chairs : Mai Suzuki, Valenti Simon**

B-3-1	Enhancing Teaching and Learning Through eLEAP: UNIMAS's Path to Technological Innovation Rohana Sapawi
B-3-2	ThIEsisIT: Development of an IOT-based Management System for the Automation of Research Archiving Noime B. Fernandez
B-3-2	Demand for Digital Skills for the Accounting and Finance Profession: Evidence from Company Job Advertisements for College Students Shaojun Zhang

16:25 - 17:10 Venue: 7F

Sub-theme : Education **Chairs : Mai Suzuki, Valenti Simon**

B-4-1	Moodle Learning Management System (LMS) in a Higher Education Institution e-Learning Environment ROWENA PILA
B-4-2	Enhancing Food Education through A ChatGPT-empowered VR-based Metaverse: An Analysis of Learner Engagement and Intention to Use Ping Geng
B-4-3	The Impact of Generative AI Uses Amongst Students in Shaping Students' Expectations Towards Teaching Method Development Allathifah D Oetomo

Day 2 : Jun 17(Mon), 2024
Parallel Session 2

11:00 - 11:50　Venue: 13F

Sub-theme : Data science　**Chairs : Krokva Daria, Remez Dmytro**

X-7-1	**Digital Citizen Participation Platform for Disaster Management: A User Evaluation from a Developing Economy** MIDETH ABISADO
X-7-2	**Predictive Modeling in University Admissions: A Case Study at a Private University in the Philippines** Kimberly May M. Vallesteros
X-7-3	**DATA-DRIVEN CURRICULUM ANALYSIS: INFORMING UNIVERSITY POLICY WITH CURRICULUM POSITION MATRIX** Juggapong NATWICHAI

9:00 - 9:50　Venue: 5F

Sub-theme : Technology innovation　**Chairs : Taiju Miyagami, Joshua Michael Kin Jiang Lee**

A-5-1	**ROSTA ? Development of an Automated Coffee Roaster with Roasting Profile Data** Jasper Meynard P. Arana
A-5-2	**Leveraging Facial Expression Analysis During Assessment in an Employee Training and Onboarding Portal: A Measure of an Exam Taker's Assertiveness** Ma. Lea A. Martinez
A-5-3	**Evaluating the Ethical Perception of Student in using artificial Intelligence for Research and Learning Outcome of Baliuag University Students.** Sammy Isidro P. Pagaduan

10:00 - 10:50 Venue: 5F

Sub-theme : Education **Chairs : Taiju Miyagami, Joshua Michael Kin Jiang Lee**

A-6-1	**Creating Detail Geological Map based on students' final year geological mapping assignment using GIS** Ilham Alimuddin
A-6-2	**Nationalism and Disinformation Perception of University Students in Mainland China** Zeying Wu
A-6-3	**Data Analysis of Technology Utilization for Hybrid Classes: A Case Study** Noemi Torre

13:00 - 13:45 Venue: 5F

Sub-theme : Technology innovation **Chairs : Yuichi Takahashi,Yuichiro Mine**

A-8-1	**COUNSELING EXPERIENCES USING TELE, WEB AND FACE-TO-FACE MODALITY** Ruth Ann L. Musngi
A-8-2	**Network Threat Detection and Anti-Malware System Enhanced with Notifications and Data Analytics Reports** Kenny James A. Ebrada
A-8-3	**Strengthen Translational Collaboration among Lecturers by Integrated Lectures** Widya Wasityastuti

13:55 - 14:40 Venue: 5F

Sub-theme : Education **Chairs : Yuichi Takahashi, Yuichiro Mine**

A-9-1	**ASSESSMENT OF LEARNERS MENTAL LOAD USING ELECTROENCEPHALOGRAM (EEG) TECHNOLOGY TOWARDS ENHANCEMENT OF LEARNING** Anna Liza A. Ramos
A-9-2	**Attitudes, Behaviors and Adoption Intentions Toward Artificial Intelligence Generative Tools in a Higher Educational Institution** ANTONIETTE Z. LACERNA

AUGMENTED REALITY-BASED COMBINED PHYSICAL EXERCISE AND LANGUAGE INTERVENTIONS FOR ENHANCING EXECUTIVE FUNCTIONS AND LANGUAGE SKILLS IN THAI EFL UNIVERSITY STUDENTS: A PILOT STUDY

WANVIPHA HONGNAPHADOL

Kasetsart Universuty

This study aims to investigate the effectiveness of the AR-based combined physical exercise and language interventions for enhancing Thai EFL students' executive functions (EFs) and language skills. Fifteen EFL university students were enrolled in this one group pretest-posttest experimental study. The participants' EFs (i.e., shifting, working memory, and inhibition) and language skills were evaluated by PEBL computerized tasks and the English test respectively. The AR-based intervention was developed by Unity3D and connected to Kinect to detect participants' physical movements. Twelve 45 minutes AR-based intervention sessions were held three times a week and lasted for a month. T-tests were employed to compare (1) cognitive factor (EF scores and reaction time (RT)), and (2) linguistic factor (English test score) before and after the intervention. The AR-based intervention significantly improved the EFs. The magnitudes of enhancement were observed for shifting, working memory, and inhibition as indexed by the percentage of correct responses and RT, $p < .01$. EFL students gained more correct responses with less RT. The AR intervention significantly improved their language skills, $p < .01$. The integrated cognitive motor functions and linguistic embedded in the AR-based intervention is thus effective in enhancing EFs and English language skills in EFL students.

Harmonising Data and Creativity: The PEDAL Project's Interdisciplinary Approach to Learning

IP Kim HO, BERTELLI ENRICO, YUI SHIKAKURA

Lingnan University, Hong Kong

Abstract: Our PEDAL project—Presenting Enviro-cultural Data for Interdisciplinary Learning—explores the nexus between intergenerational dialogues, enviro-cultural data, digital music, metaverse, and Generative AI (GenAI). Students from diverse majors work in groups to interview the elderly to collect multisensory memories and to use GenAI to creatively sonify Hong Kong's environmental data. The resulting exhibition takes place in a Metaverse environment (Decentraland).

Through courses such as Creative Expression with Music, PEDAL is integrated into the curriculum, connecting environmental and cultural sustainability themes. For instance, students have transformed temperature data into melodies, translating quantitative information into engaging audio experiences. They also experiment with environmental sounds and memories associated with our five senses morphing into an oral history map. This interdisciplinary methodology has enhanced students' creativity and technical skills and significantly boosted their confidence.

Preliminary results reveal PEDAL's impact on student engagement and learning outcomes, underscoring the project's potential for broader educational applications. By sharing our experiences, we aim to inspire educators and institutions to explore similar integrations of GenAI in education, enhancing creativity, technical skills, and interdisciplinary collaboration. As PEDAL evolves, we aim to deepen the exploration of data-driven creativity and public outreach, furthering our contribution towards the Sustainable Development Goals.

Keywords:

1. Enviro-cultural data
2. Data-driven creativity
3. Interdisciplinary learning
4. Intergenerational dialogues
5. Cultural sustainability

Assessing Leadership Capabilities: A Systematic Profiling Approach in Higher Education

Norazharuddin Shah Abdullah & Harshita Aini Haroon

Higher Education Leadership Academy (AKEPT) Ministry of Higher Education

The Association of Southeast Asian Institutions of Higher Learning (ASAIHL) Conference
2024, Juntendo University, Tokyo, Japan
June 16-17, 2024

Leadership in higher education

The complex, evolving, and dynamic environment confronting global higher education requires institutions to develop the capacity to adapt and modify new models of knowledge and change to remain competitive and meet the demands of stakeholders. The role of the leadership is more pronounced than ever now, having to contend with and address issues, amongst others, on:

- shifts in leadership theory and practice which call for a focus on 'leading', which leads to more creative, shared, and collaborative approaches (Davis & Jones, 2014);
- leadership sustainability which includes lack of interest, expertise, resources, and gender issues (Filho et al., 2020);
- managing change and coping with challenges in post-war contexts such broadened access to education, tension between accountability and autonomy, changes in funding and access, and the political role of students (Altbach et al., 2017) and the rapidly changing social and technological environments, institutional constraints, and lack of resources (Smith & Vass, 2019);
- tensions between innovation and operation, requiring agile leadership to create an adaptive space for innovation transformation (Tsai et al., 2019);
- demoralization of academic work, a culture of incivility, and negatively which impacts the wellbeing of faculty and staff (Bosetti & Heffernan, 2021).

These challenges underscore the importance of strong leadership in higher education

needs (Suyunovich, 2023; Shukla, 2023; Cherkashyn, 2021; Sauphayana, 2021; Choudhary & Paharia, 2018).

Talent excellence is a specific emphasis in the Malaysia Higher Education Blueprint (Higher Education) 2015-2025. Operationally, the term refers to an attribute of an academic community that contributes to the excellent standing and reputation of Malaysian higher education. The community comprised of academics who continuously work towards the enhancement of quality, who support professional development and lead in teaching and learning, and are excellent in research and innovation. In the supplementary Malaysia Higher Education Action Plan (2022-2025), Shift 2 on Talent Excellence delineates two strategies, four initiatives and eight programmes to enhance efforts and contribute towards an academic community that is relevant, referred and respected on both local and international platforms.

To translate the plan, the Malaysian Higher Education Leadership Academy (AKEPT) plays an instrumental role at the central level. Of the eight programmes lined up for Talent Excellence, three are assigned to AKEPT:

i) Strengthening talent management
ii) Succession planning
iii) Leadership for (university) executives

The central idea behind these programmes is that firstly, universities are to identify their academics and administrators who show potential to be at the helm of university leadership. In other words, all universities are expected to have a succession planning strategy on place. Working with the nation's higher education institutions, AKEPT provides facilitation in the training and nurturing of these individuals to become future leaders, ensuring sufficient and competent talent to be pooled accordingly, to be developed to serve the needs of the institutions. The training and nurturing take place in two ways: on-site on the job training, i.e. experiential learning; and via modular programmes that focus on knowledge and skills required in both talent management and competency-based training. AKEPT also offers a training programme that specifically tailors to the areas of leadership skills and competencies of university leadership at the executive level. Talent targeted for this programme are those already in the top and middle management level, focusing on areas such as governance, higher education management and internationalisation. The nurturing is also important as preparation for the talent to be profiled in a structured and systematic manner. The profiling exercise is done in every three-year cycle, underlying which is the idea that one's leadership competencies would have matured and expanded over time and through experience, for which the growth would show in the results of the profiling. Secondly, this group of people will be in the radar of both the institutional talent management unit of their respective institutions and AKEPT, to be selected and recommended to the Ministry and institutions, as and when the need for various levels of institutional leadership arises.

The mandate for the profiling programme has resulted in AKEPT exploring ways to contribute towards the achievement of the profiling objectives. The result is AKEPT's own assessment centre where various instruments are deployed to fulfil a standardized individual profiling exercise. Technology plays a huge part in this endeavour, for various reasons but mostly for the sheer volume of data that AKEPT manages, given the breadth and depth of the instruments, and also the number of people to be profiled, analysis for which requires data analytics proper. Concern for objective selection of candidates is also a paramount contributor to the use of a proper system. This shall now be discussed further.

Establishment of a competency framework

A study comparing academic leadership capability and competencies between Australia, New Zealand and Malaysia found that higher leadership capabilities and competencies are associated with higher performance effectiveness in higher education (Ghasemy, Hussin & Daud, 2016).

Studies suggest that useful competencies in leadership of higher education institutions include academic credibility, people skills, servant leadership, soft skills, and a framework of personnel effectiveness, cognition, leading, impact and influence, and achievement and action (Negussie & Hirgo, 2023; Thornton et al., 2018; Loureiro, Dieguez & Ferreira, 2022; Cherkashyn, 2021). Additionally, regarding sustainable development, competencies such as systemic thinking, anticipatory thinking, and critical thinking are deemed as key (Rieckmann, 2012). The wide array of competencies suggests the requirement of a competency framework. Criticism abounds on the necessity of such a framework, such as the views of Bryman & Lilley (2009) that no single type of leadership stood out as particularly effective or ineffective in higher education institutions, and competency frameworks tend to underestimate contextual factors. Nonetheless, at AKEPT we believe that competency frameworks remain appropriate and valid for leadership development in higher education, as they are found to assist in leadership development and offer insight into developing leadership capabilities in higher education institutions (Black, 2015).

At AKEPT, this was to be the main challenge i.e., the establishment of a competency framework that would be context-appropriate and sensitive, and that would refer to competencies that are regarded as important by stakeholders of Malaysia higher education institutions. A study in 2020 led to the establishment of a competency framework Competency Framework 1.0), which comprised five clusters of Personnel Effectiveness, Cognition, Leading, Impact and Influence, and Achievement and Action, with a combined total of 19 competencies (Jais, Yahaya & Ghani, 2021). Each of these clusters defines competencies (or issues) via which good leadership is identified. A review of the framework was conducted in 2023, keeping the five clusters intact with minor modifications on the competencies (existing competencies combined, expanded

and/or new competencies added), resulting in Competency Framework 2.0 with 15 competencies. In addition, four central tenets were introduced to the framework – of Wisdom, Justice, Courage and Temperance. These were drawn from classical philosophy as four virtues of mind and character, or the components of pleasant morality as described by Al-Ghazali.

The instruments and the system

With the competencies defined, the next task was to embed them in instruments to be used for the purpose of profiling. Four instruments are put together to help assessors establish the leadership readiness level of an individual.

i) Behavioural Event Interview (BEI)
The instrument (with a correlation coefficient at 0.61) requires an individual to describe how they have responded to a series of situations. The descriptions have to be based on actual events and behaviour. The purpose of BEI is to map one's experience-action to AKEPT's leadership competencies. The experience-fit-job-ready analysis provides an individual's baseline competency, which in turn guides training needs and indicates the individual's overall aggregated competency level, which can be mapped against the succession status of any of the levels: Level 1 (individual contributor, no supervision of others; lecturer), Level 2 (supervising day-to-day tasks; e.g., deputy head), Level 3 (managing function; e.g., faculty head), Level 4 (integrating diverse functions; DVC level) and Level 5 (leading whole organisation; VC level).

ii) Institutional Leader Directory (ILead)
This is an MCQ instrument, which requires an individual to run a self-assessment on leadership aptitude that measures motivation, readiness, and leadership style. Developed by AKEPT, the items for leadership style were based on Blake and Mouton's theory. The analysis is guided by the Blake-Mouton Managerial Grid (1964), a two-dimensional model plotting "concern for production" and "concern for people," depicting five basic managerial styles and their combinations: country-club leadership, team leadership, impoverished leadership, produce or perish leadership, and middle-of-the-road leadership. These styles suggest an individual's take on managerial leadership, conflict resolution, and organizational development. The final analysis of this instrument is a description of one's overall style – whether it is transactional, transformational, laissez-fayre etc.

iii) Strategic Paper Presentation (SPP)
This part of the evaluation entails a presentation on strategic planning, to visualize strategic approaches and operationalize with clarity. The purpose of the presentation is to sell 'how-to(s)' into executable initiatives at institutional level.

The presentation will reveal one's strategic tact, vision and finesse to lead institutionally.

iv) Leadership Curriculum Vitae (CurVE Lead)
This is essentially a guided CV which showcases one's leadership qualities. Unlike the mainstream academic CV, CurVE Lead requires the presentation of one's achievement related to leadership standing, experiences, network and resources.

All the instruments are placed in a platform aptly named UniLEAD. The system is run at AKEPT and is currently entering Phase 2 of its development. An individual who is keyed-in into the system by AKEPT administrators would have been identified to be profiled by the institution where they are based. The nomination rests on the assumption that the institution has established a system or mechanism through which identification is done, which should also be part of its succession planning strategy.

Once they are in the system, an individual's demographics and details relevant to academic experience and institutional leadership are compiled, as a precursor to more extensive data that is to be obtained following the individual's responses to the four instruments and the corresponding data analysis. Data resulting from the analyses are presented to the national Search Committee, to form meaning that is relevant to the institutional context in which the individual is being considered for its leadership position. The Search Committee is responsible for making recommendations to the Minister of Higher Education, of suitable candidates for the post of Vice-Chancellor after consideration of the data and an interview process.

Other than being a secure archive and a multiple access (but strictly controlled) platform with a smart reporting system that generates individual/group reports with necessary information on leadership assessment, UniLEAD is also responsible to perform a door-to door task to manage talent development initiatives. Talents that are identified with competency gap(s) (after profiling) are strategically nominated to attend development programs, where UniLEAD shall be responsible for invitation, on-site registration, storage of documentation (modules, notes and assessments) up to feedback forms and certification. All these data are then merged into the individual talent's page that will aid the smart reporting system for nomination of talent for various strategic posts.

The utilization of UniLEAD has contributed to three benefits in particular: i) increased efficiency and consistency of the process of identifying talent for institutional strategic posts; ii) the provision of a comprehensive competency and job-fit report on one's leadership potential and standing, and perhaps most significantly, iii) moves the process of decision-making on a candidate's suitability from intuition-based to one that is data-driven.

Moving forward

The current system development is at Phase 2 out of three, which will be completed in 2026. In the pipeline, we hope to achieve the following:

- The system to allow specific parties to have immediate access to data (levels of access will vary across users); the plan in to allow access to individuals profiled and the institutions, amongst others;
- At present the profiling analysis is heavily utilised for the identification and nomination for the National Top Talent (NTT) – a term referring to those at the level of preparedness to be Vice Chancellors. The system is hoped to be used also for both Level 3 and Level 4 leaders. For this to happen, getting buy-ins from higher education institutions is necessary, as well as getting a rigorous system in place (Phase 3, in 2026);
- It is hoped that the system would be able to capture details of leadership training at AKEPT for individuals nominated by their institutions, thus building a database that would enable fast nomination of leadership talents with very little dependency on institutional information and data;
- We also have plans to incorporate training effectiveness evaluation in the system, for continuous improvement and to identify which programmes result in the most significant impact.

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IN BETWEEN DIGITAL DIVIDE AND DIGITAL LITERACY: NAVIGATING DATA SCIENCE FOR THE RISE OF INDONESIA'S INFORMATION SOCIETY

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Over the last few years, Indonesian government has made a great effort to promote digital literacy across the country. In 2016, the government launched the project namely the Palapa Ring to build fiber-optic infrastructure connecting all areas of the nation. Moreover, the government has since 2021 introduced national digital literacy program by organizing the digital trainings for 12.4 million people every year. The growing networks of communication among areas have shifted Indonesian people to information society and contributed to narrow digital divide among all provinces around the archipelago. According to East Ventures' Digital Competitiveness Index 2023, there is a consistent improvement in digital competitiveness between middle and lower ranking provinces. However, six provinces of Java Island are dominating the top rankings. It indicates that digital divide is still an existing problem in Indonesia. This paper investigates Indonesia's efforts to bridge the gap between digital divide and digital literacy. Unlike digital divide that focuses only on access to digital tools, digital literacy means the ability to use digital skills. It finds that data science competences are significant for employing the digital skills to utilize digital tools.

Teaching data science literacy for global citizens; A Case from Soka University

Minami Hattori

Soka University

Digitized and globalized, our society is increasingly data-driven. Undergraduate programs in Japan encourage students to learn the basics of data science and artificial intelligence (AI). Some universities, including Soka University, have made an introductory course on data science and AI mandatory for all undergraduates, regardless of their major. Soka University's mission is to foster global citizens contributing to a society they live in. In this talk, I will briefly overview the policy context of data science education in Japanese universities. Then, I will discuss how the course "Introduction to Data Science" is designed to help students become global citizens in this data-driven world. This course is also offered to high school students.

Br. Bernard S. Oca FSC

De La Salle University

Embracing Transformative Internationalisation: NTU's Journey in the Digital Age

Jiun-Haw Lee

National Taiwan University

In the current Digital Age, National Taiwan University (NTU) remains steadfast in its pursuit of transformative internationalisation, leveraging advancements in information and communication technology to enhance its global presence and impact.

Through bilateral and trilateral strategic partnerships, collaborative research initiatives, and student exchange programs, NTU has actively engaged with institutions worldwide, fostering a diverse and inclusive academic environment. The university has embraced digital platforms to facilitate seamless communication and collaboration among scholars, students, researchers and staff across borders. Virtual classrooms, online conferences, and digital resources have transcended geographical constraints, enabling NTU to connect with a broader audience and disseminate knowledge on a global scale, enriching the educational experience and promoting lifelong learning opportunities.

Moreover, information and communication technology has revolutionised higher education by providing innovative tools and resources for not only academic corporation (such as teaching, learning, and research), but has also proven to be vital in helping NTU identify and consolidate strategic partnerships. For instance, advancements in information and communication technology have facilitated data-driven decision-making processes, empowering NTU to adapt and respond effectively to the evolving needs of the academic community and society at large.

In essence, NTU's commitment to transformative internationalisation, coupled with the integration of information and communication technology, underscores its dedication to fostering a vibrant, interconnected global learning community that thrives in the Digital Age.

Keywords:

1. Transformative Internationalisation
2. Innovation
3. Digital Age
4. Global Learning Community
5. Globalisation

The Power of ChatGPT and Prompt Engineering: Unlocking Ancient Chinese Wisdoms for Modern Business Management Education.

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The Art of War and I Ching have gained popularity among business school to navigate modern business world. However, the comprehensive principles and language in ancient wisdoms can be challenging for learners to understand and apply. This study proposes a novel approach that leverages the power of ChatGPT to generate educational content, making these wisdoms accessible and applicable via prompt engineering. Results show that ChatGPT generates high-quality text that explains the wisdoms; provides practical examples and applications that business students can relate to for making strategic business decisions; and generates interactive simulations that allow students to apply the wisdoms in controlled environment. Findings demonstrates the potential of AI to facilitate learning of old wisdoms in an efficient and engaging manner. ChatGPT bridges the gap between ancient wisdoms and modern business practices, providing students with insights and practical tools to navigate business world. ChatGPT generates customized educational content that caters individual learner needs. ChatGPT reduces the time and cost in developing educational content, allowing educators to focus on higher-level tasks. This study contributes to the ongoing conversation about the role of AI in education and highlight the need for further research in this area to fully explore the potential of ChatGPT.

LEVERAGING TECHNOLOGY AND ONLINE RESOURCES IN CIVIL ENGINEERING EDUCATION: A COMMUNITY OF INQUIRY PERSPECTIVE

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Civil engineering educators face challenges with the revision of the civil engineering curriculum and changes in course delivery brought about by the pandemic. Teachers need to adapt to a rapidly evolving professional landscape, where technological advancements and digital tools play pivotal roles in the student learning and professional practice. The integration of technology and online resources has become increasingly prevalent in modern education, offering vast opportunities for enhancing learning experiences. This paper presents the author's experience in which technology can be effectively integrated into civil engineering education addressing the community of inquiry framework of student learning. Adopting a community of inquiry framework, which emphasizes social, cognitive, and teaching presences, provides a robust structure for leveraging technology and online resources to enhance teaching and learning in both online and onsite classroom learning environments.

Wearable Fitness Devices and the Filipino Consumers: An Academic Review and Classification

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Wearable fitness devices (WFDs) refer to devices that can be worn to collect health-related information. WFDs include smartwatches, fitness trackers, sports watches, blood pressure monitors, etc. Although WFDs are important in healthcare management, there have been very few studies that explore the acceptance of these devices. This study provides an academic review of the academic articles on the use of WFDs by Filipino consumers during the period 2017-2023. It aims to contribute to the limited literature on the acceptance of WFDs. The author searched the publications on WFDs and Filipino consumers using Google, Scopus and databases under the DLSU Library. These databases include EBSCO premier, JSTOR, Philippine e journals, ProQuest Online, etc. The search used the following keywords: WFDs, activity trackers, Internet of Things and wearable health technology. The search yielded articles that were classified according to the journal type, theories/models used and the managerial implication. The key message in these articles stress that WFDs offer Filipino consumers health empowerment. Thus, WFDs are important in the future of healthcare.

DashFood: An Application Software Leveraging Retail Factors for Smarter and More Efficient Grocery Shopping

Noime B. Fernandez

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This research aims to develop a software\r\napplication that more likely prevents, rather than cures,\r\ninefficiencies in grocery shopping. This study investigates the\r\ncauses of these problems and suggests an application that would\r\nenable users to make wise decisions, lessen their guesswork, and\r\nhave the best possible shopping experiences. Based on a mixedmethod approach, the research explores the relationships\r\nbetween the proposed app, retail factors, and customer\r\nsatisfaction. SPSS was utilized to perform Cronbach's Alpha\r\nand Descriptive Statistics to analyze the gathered data for the\r\nstudy. Main problems include lengthy lines, awkward locations,\r\nand unsatisfying customer service which can cause annoyance\r\nand discontent. This paper intends to benefit several\r\nstakeholders, including customers who may find a useful tool for\r\na smooth and satisfying shopping experience, merchants who\r\nmay gain insights into customer challenges and preferences for\r\nincreased sales and customer satisfaction, the retail industry\r\nwhich may find a catalyst for customer-centric innovation, and\r\nfuture researchers on customer satisfaction in retail settings.\r\nThis study advances and leverages knowledge of the\r\ninefficiencies associated with grocery shopping and how\r\ntechnology can help mitigate them. The proposed application,\r\nDashFood, aims to empower consumers to make wise decisions\r\nthat can enhance their retail experience.

News Coverage of Mainstream Online Newspapers in the Philippines Regarding Japan: A Text Mining Approach

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University of the East

This quantitative study employed a text mining approach to understand the news coverage of mainstream online newspapers in the Philippines regarding Japan. Toward this goal, 210 online news articles from 11 online Philippine newspapers spanning from 2019 to 2024 were collected and analyzed. All news articles were converted to text files and saved in a spreadsheet as a CSV file. The corpus consisted of 8,793 words. The words were subjected to both unigram and bigram analysis for data analysis. However, the bigram analysis did not yield meaningful words; thus, only the unigram analysis was retained. It was found that the topmost word was “two,” referring to the relationship between Japan and the Philippines. Word association further revealed that “cooperation” was the word most frequently associated with the news, signifying that the news highlights the cooperative nature of the Japanese government. Topic modeling revealed that the news regarding Japan revolved around “economic support,” “global goodwill,” and “defense cooperation.” Sentiment analysis indicated that the news articles were generally positive, with negative sentiments mainly attributed to calamities in Japan. Therefore, the news articles portrayed a positive image of Japan. Limitations of the study were also discussed.

Eco-Social Network: Analyzing the Impact of Social Media on Environmental Awareness and Citizen Participation

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National University

In response to the substantial consequences of neglecting our environment, several organizations are actively promoting awareness to ensure the sustainability of our environment. Many of these are taking advantage of the advancement of technology by using social media platforms to disseminate information across the country. Individuals can engage in pro-environmental behavior if they have environmental awareness. The more understanding they have of the importance of environmental issues for the survival of all creatures in the world, the more they understand their meaningful role in maintaining it. This paper aimed to identify the key topics and hashtags associated with environmental awareness on different social media networks. While many people acknowledge the use of social media platforms for disseminating information, it does not delve into the effectiveness of these technology-driven campaigns. This research explores the impact of social media strategies on raising environmental awareness, measuring the reach, engagement, and actual behavioral changes or their acceptance resulting from these campaigns.

A COMPARATIVE STUDY OF ACTIVATION FUNCTIONS IN THE CONTEXT OF A FEEDFORWARD NEURAL NETWORK FOR RICE GRAINS CLASSIFICATION

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Rice has been a significant crop in economics, culture, and human life for centuries. Naturally, its market value is dependent on consumer-defined quality criteria for individual grains. As a result, this research focuses on the rice grains classification. A multiclass classification approach and a feedforward neural network model were utilized to study the classification of rice grains. This study utilized a dataset of 75,000 rice grains, from which features were extracted from rice grain images and categorized into three groups: morphological (12 features), shape (4 features), and color (90 features). A stochastic gradient descent optimization method was employed. An optimal performance was determined by comparing five activation functions, including sigmoid, rectified linear unit (ReLU), exponential linear unit (ELU), Mish, and Swish functions. Based on a 70:30 training-to-testing dataset split, the results indicated that the sigmoid activation function achieved the highest testing accuracy of 99.91%. With a 75:25 training-to-testing dataset split, ELU reached the highest testing accuracy of 99.89%. For an 80:20 training-to-testing dataset split, both the sigmoid and Swish activation functions performed similarly well, achieving the highest testing accuracy of 99.91%. When considering macro-average performance, the Swish activation function outperforms the sigmoid activation function.

CLASSIFYING FIVE VARIETIES OF RICE USING IMAGE PROCESSING AND MACHINE LEARNING TECHNIQUES

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Suranaree University of Technology

This research aims to apply image processing techniques in conjunction with Machine Learning methods to classify various rice varieties from images of milled rice grains. The dataset comprises 15,000 color JPEG images, each with a resolution of 250x250 pixels, representing five types of rice: Karacadag, Jasmine, Ipsala, Basmati, and Arborio, totaling 75,000 images. These images were obtained from https://www.muratkoklu.com. The images of rice grains are subjected to image processing to eliminate noise, followed by image processing to perform edge detection using the Canny method, Sobel method, ridge detection, and texture detection. Subsequently, the effectiveness of classifying processed images using three Machine Learning techniques: Na?ve Bayes, k-Nearest Neighbors, and Support Vector Machines (SVMs) is compared under the condition of K-fold cross-validation with K=10 for all methods. The research findings indicate that employing Sobel edge detection in image processing combined with SVM classification yielded the highest effectiveness. The classification accuracies achieved were 98.68%, with precision, recall, and F1-score all at 98.67%, and a Cohen's kappa coefficient of 98.35%.

Exploring Varied Cognitive Aspects in Adult Telephone Interviews within Thai Contexts

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During the coronavirus outbreak in 2021, public health services transitioned to innovative forms of service. The encouragement of long-distance communication services has been more pronounced. This trend is mirrored in monitoring cognitive activity. The purpose of this study was to explore differences in cognitive functioning among healthy adults. Two hundred twenty-five Thai adults enrolled in the study, with ages ranging from 23 to 80 years old. Screening using the Thai version of the Telephone-Based Cognitive Screening Tool (Thai-TeBCOG) indicated that late adulthood demonstrated orientation and calculation abilities comparable to other groups (F=.815, 2.064, respectively, $p>0.05$). However, the total score of global cognitive ability among late adulthood, which includes memory, abstract thinking, language, and executive function abilities, differed from those in early and middle adulthood (F=21.093, p

Preliminary Insights into the Effectiveness of Senior Mentoring in Teaching Media Creation for Proper Inhaler Device Usage: A Study on 5th-Year Pharmacy Students' Project

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This study assesses senior mentoring's efficacy in guiding fifth-year pharmacy students to develop educational materials on inhaler device usage. Students created videos and infographics under supervision, which were then evaluated for effectiveness. Results showed a 100% proficiency rate among all students in understanding inhaler products across formats. Infographic users exhibited a 91.3% satisfaction rate and recognized the content's contribution to better understanding (91.7%). Videos similarly garnered high satisfaction (95.7%) and were deemed clear (91.3%) and appropriate in tone (90.9%). Both formats received positive feedback on color schemes. These findings suggest the potential of these educational resources for patient education. Overall, the evaluation demonstrates the effectiveness of these teaching materials in conveying proper inhaler device usage and satisfying learners' needs.

Transforming Public Health Surveillance in the Philippines: Implementing the One Health Framework for Comprehensive Monitoring

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National University

Public health practice and population health science are transforming, driven by advancements in big data and artificial intelligence that have led to advancements in public health surveillance beyond traditional settings. In the face of new outbreaks, the One Health framework has shown promise in public health surveillance, particularly in mitigating the impact of diseases on human, animal, and plant health. The Philippines has seen a call for improved monitoring, especially concerning infectious diseases like COVID-19 and dengue. Integrating big data and AI in public health practice transforms surveillance, allowing for a more comprehensive understanding of health threats. This study advocates the One Health Framework as a unified system capable of analyzing diverse data sources for early threat detection and response in healthcare in the following areas: mental health surveillance, nutrition wellness, and diet therapy, health emergency response, monitoring of mosquito presence and mosquito-borne diseases, innovative public health services, and wildlife monitoring.

Hybrid training to improve healthcare providers' knowledge and attitude toward disease management in the primary care setting during Covid-19 pandemic.

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Background: Hybrid training has been selected as alternative strategies in disease management during Coronavirus-19 pandemic applied in the primary care setting.
Purpose: This study aims to explore the healthcare providers' knowledge and attitudes who participated in the hybrid training between onsite and online learning methods.
Method: A cross-sectional study was conducted between onsite conference and online via iCloud Zoom during 3 three-day conferences at the same time. Before and after participating in the conference knowledge and attitude related to disease management in the primary care setting were measured via validated online questionnaire. The analysis was applied by t-test the before and after conference participation.
Results: A total of 400 healthcare providers were included in the hybrid training: 280 participants from online conferences and 220 participants participated in onsite conferences. After participation, knowledge and attitude was significantly higher in the training course from both platforms. There were no significant differences between the group of online and onsite conferences ($p=0.087$). The normalized-gain scores of all aspects were higher than before by paired t-test analysis ($p=0.021$).
Conclusion: Hybrid training cloud be considered as a better alternative method to refresh the knowledge toward disease management especially the distant and the pandemic situation in the future healthcare.

USING ARTIFICIAL INTELLIGENCE TO GENERATE SYNTHETIC IMAGES TO REPLACE ORGAN PHOTOGRAPHS ON REAL HUMAN FACES FOR FACIAL ANALYSIS APPLICATIONS

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The objective of this research is to establish a database of facial organ images, including eyes, nose, and mouth, using object detection methods for future applications in medical data collection for patients with facial-related issues. Two types of artificial intelligence software, Midjourney and Stylegan2-ADA-Pytorch, were employed to generate synthetic images of human eyes, nose, and mouth. The study found that synthetic images of human eyes, nose, and mouth with varying characteristics could be generated, comprising 459, 483, and 462 images, respectively. Subsequently, these images were used to create training templates for object detection using YOLOv5. The next stage of the research involved testing the detection of eyes, nose, and mouth from a dataset of 3,161 artificial facial images prepared in advance from https://generated.photos/. The results revealed that the detection of eyes from facial images had an accuracy, precision, and recall of 98.58%. The detection of the nose from facial images had an accuracy and recall of 85.60% and a precision of 100%, respectively. Similarly, the detection of the mouth from facial images had an accuracy and recall of 85.08% and a precision of 100%, respectively.

GENERALIZED LINEAR MODELS AND DOUBLE GENERALIZED LINEAR MODELS IN THE MODELING OF HEALTH BIOLOGICAL SIGNAL DATA

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This study delves into the analysis of health biological signal data, with the aim of supporting healthcare professionals in disease research and treatment planning. By utilizing generalized linear models (GLMs) and double generalized linear models (DGLMs), alongside artificial intelligence applications, this research capitalizes on the potential of these tools. The dataset used for this investigation is sourced from bio-signals, specifically obtained from the National Health Insurance Service_Health Checkup Information (Korea), accessible at https://www.data.go.kr/data/15007122/fileData.do. It comprises 24 variables and 403,415 records. The research protocol initiates with the evaluation of variable correlations and proceeds to develop the models. Subsequently, considering four distributions: normal, gamma, inverse-Gaussian, and Tweedie distributions, the performance of these models is assessed using mean square error (MAE), mean square percentage error (MAPE), root mean square error (RMSE), and the distance between indices of simulation and observation (DISO) for ratios of the number of the training and test datasets?80:20, 75:25, and 70:30. Both GLM and DGLM using normal distribution of the dataset ratio 80:20 exhibit the best performance with slightly different evaluation values. The model by GLM has MAE=0.1414865, MAPE=0.1740542, RMSE=0.2737512, and DISO=0.6660373, whereas the model by DGLM has MAE=0.1396001, MAPE=0.1710685, RMSE=0.27403, and DISO=0.6671767.

ROSTA ? Development of an Automated Coffee Roaster with Roasting Profile Data

Jasper Meynard P. Arana

Adamson University

This research project focuses on developing a coffee roaster temperature controller and data logger device. The device aims to regulate cooking temperatures in a coffee roaster, ensuring consistent and high-quality roasts. By logging data, the system learns roasting profiles and controls temperature based on that data through the PID-controlled valve. Rigorous calibration and testing demonstrate precise temperature control and accurate temperature measurement. The integration of a data logging feature allows users to monitor and analyze roasting profiles and temperature data. Phase 1 of the project successfully validates the device's functionality and establishes its potential for further enhancements. Recommendations for future phases include exploring high-resistance temperature sensors and considering ceramic materials for sensor protection. These recommendations aim to enhance the device's performance, precision, and overall user experience.

Leveraging Facial Expression Analysis During Assessment in an Employee Training and Onboarding Portal: A Measure of an Exam Taker's Assertiveness

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San Beda College

Digital transformation (DX) involves integrating digital technologies into business processes, products, solutions, and customer interactions. The education sector is no exception to DX. Educational institutions embrace DX in various ways, including staff training and assessment to effectively utilize new technologies. Revolutionizing staff training and assessment is crucial for staying relevant.\r\n\r\nThe study aims to create a portal for onboarding new employees and training existing ones in academic institutions. It will incorporate facial expression analysis to evaluate employee confidence during assessments. The portal provides training materials in various formats (text, images, videos), followed by assessments to gauge comprehension. Employees can track their progress, while facilitators and examiners generate reports via a dashboard.\r\n\r\nThe study focuses on using facial recognition and expression analysis to differentiate confident and unconfident exam takers. During exams, facial images capture expressions of confidence, doubt, and uncertainty. Computer vision algorithms analyze facial features, including landmarks and expressions. These features train machine learning models to assess exam results, guiding decisions on passing, retaking, or repeating the course.

Evaluating the Ethical Perception of Student in using artificial Intelligence for Research and Learning Outcome of Baliuag University Students.

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This study evaluates the influence of artificial intelligence on learning outcomes in the learning environment of Baliuag University students in relation to its perceived ethical considerations . With the increasing integration of technology in education, and accessible information through using of artificial intelligence, this study examines the mindfulness of students when it comes to ethical consideration.. The research aims to explore in particular, the usage of artificial intelligence, such as Chat GPT and Google tools. Employing a meticulously mixed-methods approach which includes the administration of surveys and qualitative questionnaire, data will be gathered to assess students' perceptions on ethics in using artificial intelligence in Baliuag University students' learning outcome. The results will offer valuable insights into effective methods for integrating interactive technologies into technological learning settings, benefiting educators, instructional designers, and students. This study contributes to the advancement of knowledge on technology-enhanced learning and informs educational practices for fostering meaningful engagement and optimizing learning experiences in higher education settings.

Creating Detail Geological Map based on students' final year geological mapping assignment using GIS

Ilham Alimuddin, Adi Maulana, Hendra Pachri, Baso Reski Maulana

Universitas Hasanuddin

This project explores the collection of final year geological mapping assignment of final year students in Department of Geological Engineering Faculty of Engineering Hasanuddin University in Makassar, Indonesia. One of the expected learning outcomes of this study program is able to create a detail geological map of a given area. Creating a higher resolution geological map based on students' final year geological mapping assignment can be an excellent project to enhance the students' skills and contribute to the field. \r\nThe assignment consists of steps where the students must perform to achieve the final geological map product using the concept of Geographic Information Systems (GIS). This includes data collection from the field of the given area, digitizing field maps, compiling additional data, integrating secondary data from different sources. Interpretation is essential to be done with all the data to create an accurate geological map. The final product of the map should be standardized with the layout and steps for Reviewing the map for accuracy and completeness and validation of the geological interpretations by comparing them with existing geological knowledge and consulting with experts if necessary. Finally, all the methodologies and data sources must be documented and presented to public.

Nationalism and Disinformation Perception of University Students in Mainland China

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Lingnan University

Drawing upon empirical data collected from focus group discussions and survey experiments, this study examines university students' responses to online disinformation in mainland China. It finds that, regarding the controversy surrounding Japan's discharge of treated nuclear wastewater into the Pacific Ocean, nationalism is a major factor influencing university students' disinformation perception in mainland China. This study also reveals that, although university students show a level of tolerance for official disinformation from the Chinese government, the tolerance level gets decreased in cases where university students believe their personal interests are not protected by the Chinese sate. This suggests the effect of nationalism on university students' disinformation perception in mainland China depends on whether students consider their personal interests are protected or not. In other words, Chinese university students' nationalism has a pragmatic dimension and this dimension is significant in deciding the effect of nationalism on their disinformation perception.

Data Analysis of Technology Utilization for Hybrid Classes: A Case Study

Noemi Torre

University of Asia and the Pacific

As a result of the pandemic, educational institutions in the Philippines are slowly transitioning back to onsite conduct of classes. Currently, in our university, the minimum recommended onsite classes are 75% for Undergraduate subjects. Post pandemic, educational institutions are utilizing the use of online platform in teaching. The goal of the research is to relate online utilization of students of Learning Management System (LMS) and their class performance. Data from a Math General Education subject is utilized for this research. With this information, classes can be planned and adjusted to maximize student experience and learning. This research is a clear application of making use of data in planning our courses. This is especially helpful since the trend of the mode of teaching after pandemic is geared towards hybrid of online and onsite lectures. It will also be guide to both teachers and students in order maximize the experience and satisfy the objectives of the course. Initial results reveal that online participation for the two groups of data have a significant difference. But the grades of the students of the two have no significant difference. This contradicts the perception that onsite engagement will improve the performance of the students.

COUNSELING EXPERIENCES USING TELE, WEB AND FACE-TO-FACE MODALITY

Ruth Ann L. Musngi

Saint Michael's College of Laguna

This qualitative study explored the counseling experiences of participants across different modalities: tele/web and face-to-face. Utilizing Interpretative Phenomenological Analysis (IPA), the research aimed to uncover patterns, themes, and holistic features within participants' narrative statements during interviews. The findings identified ten key themes that capture the spectrum of counseling experiences: (a) genuinely connected, (b) at ease with a sincere listener, (c) connected yet disconnected, (d) calmed by a responsive counselor, (e) guarded with thoughts, (f) hesitant yet open, (g) challenged yet empowered by future goals, (h) unheard and uncomfortable, (i) effective and comfortable, and (j) heard and appreciated.\r\n\r\nThe study concludes that the effectiveness of counseling is influenced not only by the chosen modality but also by the interplay of the counselor's personality and skills, the support system surrounding the participant, and the participant's readiness to engage in the process. While face-to-face interactions are potentially more conducive to building rapport and fostering a sense of being understood, which can empower and lead to positive outcomes, they may also induce a sense of guardedness and discomfort in some individuals. Conversely, web-based counseling provides comfort and convenience, with the caveat that the lack of physical presence can lead to feelings of disconnection.

Network Threat Detection and Anti-Malware System Enhanced with Notifications and Data Analytics Reports

Kenny James A. Ebrada, Quintina M. Racal-Verceles, Sean Gabriel S. Bartolo, Jubilee Gabriel M. Mateo, Roeth Paula S. Habungan

Adamson University

In schools, online networks function as social connector to its students and faculty. However, even with the network's security, it can be breached by different threats, such as malware. Causes for this can be: security misconfiguration, criminal motivations, and incorrect inspections. Not only would the network be vulnerable, but it could also result in data being taken inadvertently. To address this, the development of an anti-malware system to bolster the cybersecurity of public school networks.\r\nNetwork Threat Detection and Anti-Malware System, a protection protocol designed as a fusion of antivirus software and network threat detection, aims to identify and thwart a spectrum of threats. The system emphasizes prevention and authentication, encompassing features like intrusion blocking, virus auto-quarantining, and malicious code deletion. The system scan for malware roaming around the network and perform related cleanup. It also run in the background of web browsers, behaving like their extension. \r\nTo assess the system, an ISO 25010 standard survey was conducted, resulting in an overall grand mean score of 4.52 for quality and 4.51 for efficiency. The results suggest that the system received positive receptions from the respondents. Overall, the system signifies a leap toward establishing a robust cybersecurity for public schools.

Strengthen Translational Collaboration among Lecturers by Integrated Lectures

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Backgrounds: Discipline-based teaching encourages lecturers to have specialization and deep knowledge of their disciplines. However, this isolated discipline of teaching often leads to teaching material overlap and fails to make students see the interconnectedness among disciplines. This teaching approach may not be enough to promote critical thinking, problem-solving, and decision-making in students.

Methods: Our medical school developed integrated lectures (IL) aiming to combine disciplines and integrate basic and clinical sciences. In one 100-minute lecture, learning material was delivered by 2-3 lecturers from different departments. This IL implementation involved three stages: curriculum development training, classroom implementation, and evaluation. Two focus group discussion sessions with 20 lecturers from pre-clinical, paraclinical, and clinical departments who had conducted IL were carried out to evaluate IL implementation.

Results: IL facilitated translational lecturer meetings (basic and clinics) which in normal situations rarely occur due to busy schedules and different work locations (university vs. hospital). The meetings created an atmosphere of expertise sharing, thereby initiating collaborative research and development of alternative teaching media. The challenges in implementing IL included the need for additional preparation time, commitment to scheduled lectures, and willingness to share sessions and listen to other lecturers.

Conclusion: IL could strengthen translational collaboration among lecturers.

ASSESSMENT OF LEARNERS MENTAL LOAD USING ELECTROENCEPHALOGRAM (EEG) TECHNOLOGY TOWARDS ENHANCEMENT OF LEARNING

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This study investigates the impact of mental load on student performance by conducting an experiment with 30 stratified randomly sampled students, categorized as "Competent," "Capable," and "Challenged." Participants engaged with learning material on iterative structures while their brain signals were monitored using an Electroencephalogram (EEG) tool. Analysis of EEG data revealed variations in frequency bands (gamma, beta, and alpha) that correspond to different mental loads during learning tasks. Alpha frequency was predominantly observed, suggesting a generally normal mental load. However, signal peaks in the EEG data showed significant fluctuations, beginning high and diminishing throughout task execution, which points to notable changes in mental load levels. Furthermore, 50% of the participants exhibited high peak signals across all frequency bands, correlating with increased mental load levels: "Very High" in gamma, "High" in beta, and "Normal" in alpha bands. These high mental loads were associated with failing performance outcomes. The findings underscore the importance of mental load management in educational settings. The study recommends revisiting instructional materials and enhancing support mechanisms to aid learners in managing their mental loads effectively. Personalized learning approaches that consider individual mental load capacities could enhance educational outcomes, emphasizing the need for resources that support effective mental load management.

Attitudes, Behaviors and Adoption Intentions Toward Artificial Intelligence Generative Tools in a Higher Educational Institution

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St. Paul University Quezon City

This study aimed to determine the attitudes toward artificial intelligence (AI) generative tools, related behaviors, and intention to use AI generative tools among the faculty, Senior High School, and college students at St. Paul University Quezon City. Weighted means were used to summarize data while correlation analysis was employed to understand relationships between variables.\r\n\r\nFindings show that attitudes moderately influence intentions, but subjective norms have a low effect on attitudes. Positive attitudes have negligible relationship with respondents' perceived behavioral control while the negative relationship between intention to use and perceived control, however, points to complexity that requires further investigation. All things considered, these results highlight the complex interactions among variables influencing people's attitudes and actions related to the adoption of AI generative tools, particularly in educational settings. \r\n\r\nResults of this study will provide valuable input to policy formulation particularly in the development of tailored policies and strategies aimed at promoting responsible and ethical AI adoption in educational contexts.

Interface Interactions and Mathematics Performance in a Personal Instructing Agent Exhibiting Synthetic Facial Expressions

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University of the East

This study determined the interface interactions of Grade 8 students within a virtual learning environment and the impact of this environment on their mathematics performance. In this learning environment, a Personal Instructing Agent (PIA) assisted students in solving algebraic linear equations. The first version of PIA exhibited synthetic facial expressions (SFE), such as neutral, happy, sad, surprised, and angry, while the second version only displayed neutral SFE. Students were randomly assigned to either version, with 26 using the first version and 27 using the second. It was demonstrated that students in the first version had higher interface interactions in terms of number of problems solved, hints provided by the PIA, time spent using the system, and completion rate. Furthermore, it was revealed that students using the first version explored higher-difficulty mathematics problem levels than those using the second version. While students in both versions improved their mathematics performance, there was a 15-point gap in their average post-test scores in favor of the facial expression group. It was inferred that both versions contributed to promoting persistence, but the first version emerged as the more preferred educational tool. Recommendations are also included in this paper.

Shaping the Future of Education with UBD's Innovative Lifelong Learning and Bachelor of Digital Science Programmes

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Universiti Brunei Darussalam

This paper explores the transformative role of technology in education, spotlighting Universiti Brunei Darussalam's (UBD) innovative approaches through its Lifelong Learning programmes, micro-credentials, and the Bachelor of Digital Science programme. In an era where the landscape of education is continually evolving, UBD has positioned itself at the forefront of this change by integrating technology-driven solutions that cater to diverse learner needs and industry demands. Our Lifelong Learning programmes are designed to provide flexible, accessible education pathways for learners at various stages of their life and careers, leveraging micro-credentials as a means to recognize and accumulate expertise in specific skill sets. Meanwhile, the Bachelor of Digital Science programme is tailored to produce graduates and researchers who can contribute to technological innovations and technology-based economic development. This paper discusses the development and implementation of these programmes, drawing on data and feedback from stakeholders to evaluate their effectiveness. Through these innovative programmes, we aim to contribute to the broader discourse on technology innovations for education, offering insights and best practices that can inspire similar initiatives worldwide.

Virtual Tracer of Students' Connection to Science Ideas of Social-Scientific Issues in Biochemistry Class

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In the digital era 4.0, people easily receive and disseminate information through social media platforms, including socio-scientific issues (SSI). However, many students were challenged to explain SSI, which potentially caused them misleading. Teachers need strategies to tracer students' connection with SSI. This study aims to develop a virtual tracer of students' connection to SSI (VTC-SSI). The IDM (Instructional Development Model) model consists of 6 stages, namely: 1) needs analysis, 2) design and development of the VTC-SSI prototype, 3) validation of VTC-SSI, 4) Testing of the VTC-SSI prototype, 5) evaluation of VTC-SSI, and 6) revision of VTC-SSI was applied in this study. A total of 88 science education students from a university in Surabaya were involved voluntarily in the tryout of the VTC-SSI. Content analysis shows that the connection to SSI can be traced by assessing students' ability to identify, define, describe, and explain science aspects of SSI. In addition, the context of the SSI should be explained microscopically. VTC-SSI tracer is valid and can be used to trace students' connection to the science ideas of SSI. Prior relevant knowledge is essential to recognize and construct the science aspects of SSI and the microscopically described of SSI context.

SELF-PRESENTATIONS OF FILIPINO MEDICAL PRACTITIONERS IN THEIR TELECONSULTATION MATERIALS ON FACEBOOK

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Telehealth and its subtypes such as synchronous, asynchronous, remote (tele) monitoring, telemedicine, virtual visit, asynchronous chatting, remote patient monitoring, and technology-enabled modalities have been induced by the foray of the COVID-19 pandemic. With the recency and primacy of this virtual social health event, studies of this type are still underway and on the cusp of being codified. This study semiotically peruses a total of 40 public self-promotional teleconsultation multimodal materials on Facebook. It is analytically guided by Rodriguez and Dimitrova's (2011) four levels of visual analysis: denotative systems, creative-stylistic-technical systems, connotative systems, and ideological representations. These teleconsultation materials are heavily characterized by their first-level denotative meanings and crisscross with the other semiotic systems. This study discusses important implications for visual literacy among the patients and their guardians; promotion of being "commercial semioticians" among the medical practitioners; and monitoring and support from the Department of Health (DOH-Philippines) as telehealth is seen to be a permanent part of the present and the future healthcare delivery.

Paghalungkat ng Mga Ugat: Ang Paggalugad at Pagsipat sa Pagpili ng Mga Artikulong Nailathala sa Dalumat E-Journal mula 2010 hanggang 2022

Jessica May Reyes[1], Vasil Victoria[2]

De La Salle University[1],
Ateneo de Naga University[2]

This study is focused on exploring the process on how the articles of Dalumat E-Journal (DEJ) by Networked Learning PH from 2010 to 2022 were published. This was inspired by Eilene Narvaez's exploration of the entire process of choosing the winner for the "Salita ng Taon," by the Filipinas Institute of Translation (FIT).\r\n\r\nFurthermore, this research used the Mixed Method design which aided the researcher to analyze all articles available from the official website of Philippine E-Journals. By using Critical Discourse Analysis, the researcher had the chance to look into all the factors that influenced in the selection of the articles published in DEJ. The results of this study was used to connect the importance of research and journal publication using the native language so that Filipino will be recognized as an intellectualized language.\r\n\r\nWith this, it was discovered that despite the changes brought by technology and modernization in the present, the art of conventional writing is still sought in journal publication. Aspiring contributors should review their foundation and revisit the fundamentals in writing research. Intellectualization of Filipino as a language is a long road to take but it does not mean that it is not possible.

UE-CLAMS: University of the East - Computer Laboratory Asset Management System

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The University of the East presently relies on manual procedures in its computer laboratories, utilizing traditional methods such as paper documentation and physical movement. To address this, the University of the East - Computer Laboratory Asset Management System (UE-CLAMS) is introduced, aiming to digitize and streamline these procedures with the goal of minimizing paper usage. UE-CLAMS plays a pivotal role in facilitating processes such as asset inventory tracking, maintenance scheduling, monitoring of borrow and reservation requests, report generation, user management, and activity tracking within the system. Developed through the Incremental Process Model, UE-CLAMS underwent rigorous testing, receiving an average acceptability rate of 4.53 out of 5. The research suggests that future iterations of UE-CLAMS should incorporate heightened flexibility to ensure seamless implementation across diverse academic departments. Furthermore, the proponents advocate for the integration of state-of-the-art technologies to enhance the user experience and streamline functionality.

Enhancing Teaching and Learning Through eLEAP: UNIMAS's Path to Technological Innovation

Rohana Sapawi, Kartini Abd Ghani, Nur Tahirah Razali, Asrani Lit, Maimun Huja Husin

Universiti Malaysia Sarawak

Learning Management Systems (LMS) have become indispensable tools in the field of education, enabling the seamless delivery, management, and assessment of learning activities across diverse learning environments, including traditional classrooms and online platforms. This paper delves into the transformative potential of LMS in driving technological innovation in education, with a specific focus on the utilization of E-Learning Enrichment and Advanced Platform (eLEAP) by Universiti Malaysia Sarawak (UNIMAS) in its teaching and learning practices. This paper sheds light on how UNIMAS leverage eLEAP as catalysts for teaching and learning. Moreover, it provides an insightful overview of how lecturers at UNIMAS and beyond utilize eLEAP platforms to streamline their teaching methods, track student progress, and adapt instructional strategies to meet individual learning needs. Furthermore, an exploration of the influence of eLEAP on student engagement, collaboration, and the cultivation of personalized learning experiences within the UNIMAS community will be discussed. Embracing eLEAP as vehicles for innovation empowers lecturers in UNIMAS to harness the full potential of technology, thereby creating dynamic and effective learning environments that equip students with the skills and knowledge needed to thrive in the 21st century.

ThIEsisIT: Development of an IOT-based Management System for the Automation of Research Archiving

Noime B. Fernandez, Earl Jaison, Jeneceil M. Cogollodo, Rommel Dela Cruz, Judith Rivamonte, Noime Fernandez

Adamson University

The researchers aim to develop a web-based thesis archive management system to address the challenges of manual and digital archiving methods in departmental libraries. They identified factors such as cost, maintenance, storage, accessibility, searching, browsing, retrieval, preservation of resources, and physical factors. The system should store student theses and project documents, provide a database for easy searching, retrieval, and tracking, and be accessible over the internet to minimize processing time. A quantitative research method was used to gather data on usage patterns and behavior of library staff and users. The researchers used online surveys, questionnaires, and secondary data analysis to understand user experiences and make data-driven decisions.

Demand for Digital Skills for the Accounting and Finance Profession: Evidence from Company Job Advertisements for College Students

Man Kwong Leung, Sunny Sun, Shaojun Zhang

The Hong Kong Polytechnic University

This paper contributes to nurturing finance and accounting talents for the real world through a comprehensive analysis of the relevant job advertisements in recent years, providing up-to-date information for curricula development and education that meets employers' expectations. We achieve a deeper understanding of current labour market demand by examining job vacancy advertisements that were posted on an online job board for college students during 2018-2023. Specifically, we find that the percentage of the advertised accounting and finance jobs that explicitly require digital skills increased from 10.2% in 2018 to 16.9% in 2023. By examining accounting and finance jobs separately, we find that the percentage increased from 4.5% in 2018 to 9.3% in 2023 for accounting jobs but has fluctuated between 16.2% and 28.0% over the years for finance jobs. Three digital skills, namely, VBA, Python, and SQL, always appeared at the top of skills in demand in all the years, while the skills for data science and visualization became increasingly important over time. Overall, our findings shed new light on employers' demand for digital skills in the fast-changing labour markets for the accounting and finance profession.

Moodle Learning Management System (LMS) in a Higher Education Institution e-Learning Environment

ROWENA PILA

RIZAL TECHNOLOGICAL UNIVERSITY, PHILIPPINES

Moodle become an essential tool in the Higher Education Institutions (HEIs). This study aimed to evaluate the usability of the Moodle system in terms of learnability, efficiency, effectiveness, memorability, error feature, satisfaction, and accessibility. With focus also on the challenges encountered in terms of connectivity, accessibility, and feedbacks from lecturers. The participants of the study are the students of the Rizal Technological University. The statistical tools include t-test for independent sample means and One-Way ANOVA for the significant difference by gender, age, and course respectively. Results of the study show the p-value of 0.227548 indicating no significant difference by age, the p-value of 0.09333 indicating that there is no significant difference by gender when compared to the tabular value p-value of 0.05; and there is a significant difference between the usability of Moodle in terms of course with the p-value of 5.03E-05 which is greater than p-value of 0.05. Majority of the respondents of the study agreed on the usability of the Moodle when measured in terms of the identified parameters. The results of the study would be useful to the institutions trying to integrate technology in their teaching and learning processes.

Enhancing Food Education through A ChatGPT-empowered VR-based Metaverse: An Analysis of Learner Engagement and Intention to Use

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Department of Food Science and Nutrition, The Hong Kong Polytechnic University[1], Soqqle Pte Ltd[2]

Food education, particularly procedural knowledge acquisition in food processing, traditionally relied on flow charts and videos, leading to ineffective convey of food production processes. A VR-based metaverse platform augmented with ChatGPT avatars may tackle this issue through an immersive, vivid and interactive learning environment. Our study investigated the factors affecting students' acceptance of a tailored metaverse platform and compared the proposed metaverse and traditional mobile-based approach in terms of students' perceptions. \r\n\r\nBased on a focus group interview for students' initial perceptions on VR, we conducted a subsequent comparative study with 40 students, who were randomly assigned to one group using our metaverse platform and one group using a mobile setting, under the same scenario of a corn processing factory. \r\n\r\nStudents perceived the VR-based metaverse more intuitive than the mobile setting ($p = 0.028$). The regression analysis demonstrated a significant coefficient of determination ($R? = 0.790$), highlighting the influence of attitude, enjoyment, and perceived usefulness of the platform on students' intention to use. The result indicates the significance of fostering a positive attitude, creating engaging and interactive metaverse designs, and providing content relevant to lectures to cultivate students' willingness to utilize VR-based metaverse platforms in food education.

The Impact of Generative AI Uses Amongst Students in Shaping Students' Expectations Towards Teaching Method Development

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Nowadays generative AI has evolved into some sort of supplemental tool for students, either as a prompt or a brainstorming instrument for them to proceed with their assignments, or as simple as providing summaries and/or key points of their learning materials. With the recent development, there are changes as to how students wish to absorb their lessons in classes and the increasing need to exercise managing the overflowing information, as well as to better sift through data they can outsource from the internet. This in turn reinforces their expectations as to how teaching methods should further be improved to be able to catch up with the rapid technological development. We took a survey on our students from four different faculties that cover the four streams of science in our university, namely life science, health science, technological science and social science. Their responses show that students are inclined to expect more than the conventional seminar lecture delivered by their professors and there is a growing predilection towards varying degrees of stimulating discussion in classes. The data collected from the survey shall be able to provide insights as to how teaching method development in the coming years should be regulated accordingly.

COMPARING STATISTICAL AND MACHINE LEARNING MODELS FOR ASSESSING BODY FAT PERCENTAGE USING BODY COMPOSITION DATA

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Suranaree University of Technology

The aim of this research is to develop statistical and machine learning models for assessing body fat percentage. The data is obtained from https://www.kaggle.com/fedesoriano/body-fat-prediction-dataset, which comprises 15 features, including body fat percentage, density (determined from underwater weighing), age, weight, height, circumference of neck, chest, abdomen, hip, thigh, knee, ankle, extended biceps, forearm, and wrist. To simplify the model-building process, the approach begins with feature engineering using RapidMiner Studio version 9.10. In this feature engineering step, parameters such as generalized linear model (GLM), gradient boosted tree (GBT), deep learning (DL), and support vector machine (SVM) are utilized to create appropriate features. Subsequently, the newly created features are used to construct GLM, GBT, DL, SVM, generalized additive model, naive Bayes model, decision tree model, and random forest model using R for Windows (version 4.3.3) for forecasting body fat percentage. The results reveal that the GLM model demonstrates the highest predictive performance. A GLM model using features derived from feature engineering with GLM achieves a minimum RMSE of 3.921. Meanwhile, a GLM model employing features derived from feature engineering with SVM achieves a minimum MAE of 3.818.

PREDICTION OF ICU ADMISSION FOR COVID-19 INFECTED PATIENTS USING BINARY LOGISTIC REGRESSION ANALYSIS

Tidarut Areerak, Phichittra NAKROBTHAI, Kittitat IAMTHONG, Jessada TANTHANUCH, Tidarut AREERAK

Suranaree University of Technology

This research focuses on creating a predictive model using binary logistic regression to anticipate ICU admission of COVID-19 patients in Mexico based on data from 2020. The backward elimination method is employed for variable selection, considering statistical measures like the loglikelihood ratio and Wald statistic. Python libraries within the Anaconda environment, specifically Jupyter Notebook, are utilized for analysis. The dataset is divided into three different training-to-testing data ratios: 70:30, 75:25, and 80:20, with synthetic minority oversampling technique (SMOTE) applied for data balancing. The models trained on imbalanced data ratios (70:30, 75:25, and 80:20) achieve accuracies of 88.18%, 87.94%, and 88.12%, respectively, with sensitivities of 39.47%, 40.53%, and 38.46%, compared to actual data. In contrast, models trained on balanced data achieve accuracies of 77.39%, 76.91%, and 78.05%, respectively, with sensitivities of 58.61%, 58.23%, and 57.79%. The models trained on balanced data show comparable accuracy and sensitivity but outperform models trained on imbalanced data, indicating improved prediction of ICU admissions for COVID-19 patients with increased sensitivity.

An Intelligent Fall Detection Technique Using Convex Hull Analysis

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Suranaree University of Technology

Falls represent a serious health risk, especially among the elderly population. This paper introduces a real-time fall detection system utilizing MediaPipe, a widely recognized pose estimation library. The system leverages the geometric properties of a convex hull, which represents the minimal polygon outlining a person's silhouette within a video frame, for fall analysis. Key joints of the human body are extracted from video frames using MediaPipe and utilized to construct the convex hull. A sudden and substantial decrease in the convex hull's area indicates a potential fall event, marking the transition from a standing posture to a fallen posture. This approach provides a computationally efficient method for fall detection. Moreover, the system can seamlessly integrate with various communication protocols to deliver real-time notifications, such as LINE notifications, upon detecting a fall. While recognizing the limitations of relying solely on area changes, the paper proposes incorporating additional checks to enhance the system's robustness. This contributes to advancing the exploration of convex hull analysis in practical fall detection systems, paving the way for further advancements in the field and ultimately improving the well-being of the elderly population.

Development of Low-Resourced Language Respiratory Symptoms Dataset from Social Media Posts Towards Public Health Surveillance

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National University

Social media has been a popular platform for mass social interaction. However, the proliferation of misinformation, coupled with increased public surveillance utilizing social media posts, has led to the emergence of infodemics. Despite lacking medical validation, social media posts present an opportunity for early detection of potential health threats, providing valuable insights for government health units to prepare mitigation plans before official reports from hospitals emerge. This dataset comprises of 14,000 multi-platform social media posts focusing on leveraging low resourced languages - Filipino and Cebuano from platforms such as Reddit, Facebook, TikTok, and Twitter to identify emerging trends of respiratory illness symptoms. This paper developed a dataset annotated by medical experts to discern posts that may indicate symptoms related to COVID-19, Pneumonia, Tuberculosis, or Acute Upper Respiratory infection (AURI). The dataset is sought to be used as a testbed for language research applied to Artificial Intelligence applications in public health surveillance. By analyzing trends in social media content, government health units can gain early insights into potential disease outbreaks, allowing for prompt implementation of preventive measures and allocation of resources.

Development and Validation Test of 3D-print based cerebrum mannequin for Anatomical learning devices

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Breast cancer is close second to lung cancer as the most diagnosed type and the leading cause of cancer deaths due to lack of typical symptoms and signs while early-stage breast cancer is often neglected. With this, improvements in computer-assisted diagnosing and care for breast cancer have increased through advancements in computer vision. In the field of computer vision, the use of convolutional networks in deep learning has shown promising performance in recent works for image classification and pattern recognition therefore the study opted to use this approach. This study will interpret a mammogram by using a generative model for reduction following the use of multiple discriminative models for classification. First, a generative model in the framework of a variational autoencoder (VAE) will be created followed by the evaluation of several discriminative models to interpret the stage of breast cancer. While the framework of this study can be used to make supplementary opinion for interpreting breast cancer for early detection, especially in areas where there is poor access to radiologists and medical experts. However, the result is not intended to replace medical diagnosis but rather serve as accompanying material in improving the quality of service and diagnosis of breast cancer

DIAGNOSING MAMMOGRAMS WITH REPRESENTATION LEARNING USING STACKED MODULES

Albert Silva

San Beda University

Breast cancer is close second to lung cancer as the most diagnosed type and the leading cause of cancer deaths due to lack of typical symptoms and signs while early-stage breast cancer is often neglected. With this, improvements in computer-assisted diagnosing and care for breast cancer have increased through advancements in computer vision. In the field of computer vision, the use of convolutional networks in deep learning has shown promising performance in recent works for image classification and pattern recognition therefore the study opted to use this approach. This study will interpret a mammogram by using a generative model for reduction following the use of multiple discriminative models for classification. First, a generative model in the framework of a variational autoencoder (VAE) will be created followed by the evaluation of several discriminative models to interpret the stage of breast cancer. While the framework of this study can be used to make supplementary opinion for interpreting breast cancer for early detection, especially in areas where there is poor access to radiologists and medical experts. However, the result is not intended to replace medical diagnosis but rather serve as accompanying material in improving the quality of service and diagnosis of breast cancer

E-LEARNING METHOD TO SUPPORT FOURTH INDUSTRIAL REVOLUTION

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The Fourth Industrial Revolution builds on the digital revolution, representing new ways in which technology becomes embedded within societies and even the human body. One of the learning methods to support fourth industrial revolution is through e-Learning. e-Learning is a generic term for all technologically supported learning using an array of teaching and learning tools as phone bridging, audio and videotapes, teleconferencing, satellite transmissions, and the more recognized web-based training or computer aided instruction also commonly referred to as online courses. The advantages of using e-Learning are (1) the material of subjects can be easily accessed of students and teacher; (2) more effective and efficient to access it due to unlimited space and time. In addition, the platform web-based internet/online system. The subject materials completed with supplement such as handout provide in Pdf file that can be downloaded. Framework Moodle has been using as the computer language program and Database MySQL as data saving.

Exploring Student Satisfaction and Engagement through Gamification: A Pilot Study

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In the conducted structural equation modelling analysis, the default model yielded a significant chi-square value of 572.827 with 189 degrees of freedom, resulting in a ratio of 3.031. This model demonstrated moderate fit, with indices such as RMR at 0.225 and GFI at 0.47 indicating reasonable fit relative to model complexity. Notably, higher intention to use was positively associated with feeling competent, capable, and effective during gameplay, while showing a slightly negative association with feeling matched to the game's challenges. Additionally, higher intention to use was positively linked with feelings of autonomy, relatedness, presence, and intuitive controls, indicating a holistic relationship between intention to use and the gaming experience. The standardized regression weights indicate that higher intention to use is positively associated with feelings of competence (C2: 0.188), autonomy (A1: 0.18, A2: 0.504, A3: 0.61), relatedness (R1: 0.191, R2: 0.118), presence (P1: 0.542, P2: 0.789, P3: 0.837, P6: 0.915, P7: 0.854, P8: 0.38, P9: 0.801), and intuitive controls (IC1: 0.343, IC2: 0.19, IC3: 0.665) within the gaming experience. However, feeling matched to the game's challenges and emotional impact of events in the game show weaker or negative associations with intention to use. The standardized regression weights indicate significant positive associations between intention to use and various aspects of the gaming experience, particularly with feelings of presence, intuitive controls, and autonomy.

Exploring the Landscape of ChatGPT, its Applications in Education, and Research: A Comprehensive Overview

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This abstract presents a comprehensive overview of ChatGPT's diverse applications in education, research, and beyond. The focus is on its relevance within the Traditional and Complementary Medicine (T&CM) realm. The 15 chapters explore different aspects of ChatGPT's integration into T&CM education and research. Chapter 1 examines its utility as a study tool for Pharmacology, followed by pedagogical implications in Chapter 2 and acceptance among undergraduate students in Chapter 3. Chapters 4-6 compare its efficacy with Google Scholar, discuss prompt engineering, and propose strategies like Bring Your Own Paper (BYOP). Ethical considerations and epistemological frameworks are examined in Chapter 7, followed by the author's perspective on ChatGPT's potential in Chapter 8. The abstract further discusses ChatGPT's role in medical education, public perception, and research trends. Policy guidelines and risk analysis post-ChatGPT era are discussed in Chapters 14 and 15, respectively. Throughout, the abstract highlights ChatGPT's multifaceted contributions to enhancing learning experiences and advancing research in T&CM education.

A Critical Examination on Generative Artificial Intelligence in Legal Education: Limitations and Risks

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As technological advancements accelerate, their application extends beyond the business sector. Educators are increasingly emphasizing the integration of technology in teaching and learning. Undoubtedly, generative artificial intelligence (AI) has made significant contributions to legal research, teaching, and the future landscape of the legal profession. By leveraging AI, law students can efficiently comprehend legal documents and cases, leading to more informed legal opinions. Additionally, legal practitioners can enhance the accuracy of predictive analytics in litigation by identifying patterns and trends within legal data. \r\n\r\nHowever, like any coin, AI has two sides. While much attention focuses on the advantages it brings to legal education, individuals may inadvertently overlook the associated limitations and risks. These challenges include technophobia, potential hallucinations, and ethical considerations related to digital technology. This paper delves into the under-explored territory of the actual and potential drawbacks of AI's transformative impact on legal education. Drawing insights from 'The Impact of Artificial Intelligence on the Legal Profession,' a recent document issued by the Law Society of Hong Kong in January 2024, this conference paper aims to foster a more equitable learning environment by raising stakeholders and general public's awareness of both the benefits and risks of AI technology.

Evaluating E-Learning Systems Success: A Case of University X

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The pandemic has forced educational institutions to adopt new technologies to continuously and effectively deliver education in remote settings. One of these technologies is e-learning systems, which have gained popularity because of the value they offer to educational institutions and students. Now that the pandemic has ended, these institutions still use e-learning systems. Hence, it is necessary to measure if this technology is still thriving to aid institutions in delivering student benefits. This research measures the success of the e-learning system in a higher education institution in the Philippines using the Evaluating E-learning System Success (EESS) Model. The researcher gathered 128 responses from management students at a higher education institution in the Philippines, which were analyzed using PLS-SEM. Among the determinants, perceived usefulness, satisfaction, and actual use have significant positive effects on student benefits. Learner quality and perceived usefulness have significant positive effects on satisfaction. Actual use of the e-learning system is significantly positively affected by educational system quality and perceived usefulness. Finally, perceived usefulness is significantly positively affected by technical system quality, learner quality, and instructor quality. This research also presents practical implications for improving the success of the e-learning system in higher education institutions.

Technological Advancements in Education at State Islamic University: A Case Study of UIN Alauddin Makassar, Indonesia

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UIN Alauddin Makassar

Key areas of technological advancement include the utilization of online learning platforms tailored to Islamic education, the integration of immersive technologies of Artificial Intelligence (AI) for academic administration and management, the implementation of adaptive learning systems to accommodate diverse learning styles, and the incorporation of learning management system in the platform for personalized educational experiences. UIN Alauddin Makassar has embraced digital tools and platforms to enhance educational experiences for both students and faculty staffs called “Lentera”. This study examines the role of collaborative tools and digital resources in facilitating remote learning particularly relevant in the context of UINs academic necessities and to evaluate the implementation of “Lentera”, a digital learning management system being used by students and faculty staffs in UIN Alauddin. Methodology used is descriptive research with qualitative approach and the research instrument used is in-depth interview from the platform builder, lecturers and students. The result of the study has indicated that this LMS has catered the needs of technological education advancement for higher education academics in implementing the integration of learning management system into digital platforms.

Technology Innovations For Education: The Need For Artificial Intelligence And Hyflex Learning Capacity Building For Educators

Ismi Arif Ismail, Habibah Ab Jalil, Muhd Khaizer Omar, Ahmad Farhan Mohd Sadullah, Mohamad Amirul Mohd Adnan Ali

Universiti Putra Malaysia

This era of post-normal times has been a testament to the resilience and adaptability of education in the face of unprecedented challenges. Technology innovations has played a pivotal role in harnessing the transformative power of education, transcending borders and limitations to ensure that knowledge remains accessible to all. We witnessed a paradigm shift in the way education is perceived and delivered worldwide. There is a significant need to strive towards democratization of education, making learning opportunities available to diverse communities regardless of geographical constraints. More efforts are needed to explore ways to fulfil educators' needs of up-skilling and re-skilling to better perform in their work. The integration of Artificial Intelligence and HyFlex Learning are crucial to strengthen the average digital skill and capacity of educators. This presentation provides a deeper understanding of the digital training needs among educators which can propel institutions of higher learning forward and fuel our shared vision for a more accessible, equitable, and innovative education landscape across the globe. The world is evolving rapidly, and our ability to adapt and innovate will be crucial in shaping the future of learning.

The Cotutelle Program: A Model for International Collaboration in Doctoral Education

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Tehran University of Medical Sciences

The cotutelle program is a unique model of doctoral education that allows students to pursue a joint degree from two universities in different countries. The student typically spends time at both universities, conducting research and taking courses. Upon completion of the program, the student receives a doctorate from both universities. This program offers several benefits, including the opportunity to gain exposure to different research cultures and methodologies, develop a global network of colleagues, enhance career prospects and receive two doctorates from prestigious universities. \r\nEstablishing a cotutelle program requires careful planning and cooperation between the two universities involved. The two universities should establish a joint committee to oversee the program and recruit students. Students in cotutelle programs need to be provided with financial assistance, academic advising, and cultural orientation throughout their studies. \r\nCotutelle programs are becoming increasingly popular as the world becomes more globalized. They offer students to gain exposure to different research cultures and develop a global network of colleagues. As a result, cotutelle programs are likely to continue to grow in popularity in the years to come.\r\nOur university’s experiences (Tehran University of Medical Sciences (TUMS)) with Cotutelle programs will be presented and discussed in the conference.

UNVEILING THE LEARNING MANAGEMENT SYSTEM ACCEPTANCE AMONG SELECTED UNIVERSITY STUDENTS: A BLUEPRINT FOR AN ACTION PLAN

Frederick A. Inoncillo, Maria Veronica P. Santiago, Yolanda S. Marfil

Baliuag University

This study aimed to delve into the various dimensions of students' acceptance of Learning Management Systems (LMS), specifically focusing on performance expectancy, effort expectancy, facilitating conditions, and social influence, concerning gender, year level, and degree programs. Additionally, it sought to formulate an action plan to enhance students' LMS experience. Employing a descriptive-quantitative design, data were gathered using an online questionnaire from 41 selected students who utilize the Canvas LMS and are enrolled at Baliuag University. Findings, analyzed through mean comparison utilizing Mann-Whitney U and Kruskal Wallis H tests, indicated that students' levels of LMS acceptance across gender, year level, and degree programs were not statistically significant at a 5% level of significance. Descriptive statistics revealed that social influence and facilitating conditions received the lowest mean scores. Moreover, students' suggestions were instrumental in developing the action plan. Consequently, no significant difference was found in students' LMS acceptance concerning gender, year level, and degree programs. In addition, identified areas for improvement, particularly social influence and facilitating conditions, formed the basis for the action plan. Furthermore, key components of the plan include the integration of vital announcements, addressing technical issues, streamlined content presentation, refinement of content organization, and promoting collaboration in the LMS.

Asynergistic paddy transformation project by institute of higher learning with the government, for the community, ensuring food security of the nation

Shahrul Razid Sarbini

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Food security involves ensuring food availability and access for individuals. In Malaysia, particularly in Sarawak, there's a focus on becoming a major food exporter, especially of rice. The Sarawak's development strategy namely Post Covid Development Strategy 2023 (PCDS2030), includes this goal, leveraging the state's resources and land. Local higher education institutions play a crucial role in this effort. Universiti Putra Malaysia Bintulu Sarawak Campus (UPMKB) has launched the AgriHub@Gedong project in Gedong district, targeting the transformation of traditional paddy cultivation methods to enhance productivity and sustainability. The AgriHub@Gedong project aims to double paddy production using Good Agricultural Practices (GAP) and smart farming, promote sustainable agricultural practices, improve soil health with organic conditioners, and reduce agrochemical use. It also seeks to increase farmers' income by at least 60%, thereby supporting Sarawak's goal of achieving rice self-sufficiency and becoming a net rice exporter. This initiative showcases how higher education institutions can contribute to community development, policymaking, and national goals through technological innovation, data science, and sustainable practices. The project represents a significant step towards enhancing food security and agricultural productivity in Malaysia.

Engaging Minds: A Supportive Ecosystem for Gamification and Innovative Technology in Higher Education Institution

Kartini Abd Ghani, Fitri Suraya Mohamad Hapnie Joblie, Terry Lukas, Sharifah Norizan Wan Zain, Marzuki Barahim, Rohana Sapawi

Universiti Malaysia Sarawak

The paper explores the transformative influence of gamification and cutting-edge technology in modern education. It delves into the integration of game design elements and principles into educational contexts, aiming to enhance student engagement, motivation, and learning outcomes. And how this initiative comes from cumulative efforts made through various departments in higher education to promote, encourage, and support meaningful fun learning that would advance the development of higher order thinking skills. The paper further elaborates the supportive environment for the enculturation of gamification and technology-based education which includes providing training and support to the academics, availability of state-of-the-art technology and learning spaces and a reward and recognition system to continue the effort. Through case studies, examples, and research findings, “Engaging Minds” presents a comprehensive overview of how these advancements are reshaping education. It concludes by emphasizing the potential of gamification and innovative technology to revolutionize teaching methodologies, inspire creativity, and cultivate critical thinking skills in learners of all ages.

INFORMED MOBILITY STRATEGIES IN METRO MANILA AFTER THE PANDEMIC

Eva Aurora D Callueng

University of the East

The daily mobility of people in the Philippines plays a crucial economic role that cannot be overstated. The day-to-day mobility of people ensures transfer of goods and services and are therefore dependent on the transport systems in a society.\r\nThe end of the Work-From-Home arrangements of the workforce and students going back to school in person after the pandemic added to the volume of the mobility requirement and drastically changed the traffic jam situations in the country's capital. In a number of surveys conducted online, Manila, Philippines repeatedly appears to belong to the Top 10 named countries with worst traffic situations in the world along with other capitals in Asia namely New Delhi, Colombo, Bangladesh, Bangkok, and Jakarta (Numbeo, 2023). This study explores various scenarios after the pandemic in MM considering factors such as remote work trends, adoption of new technologies, and offsite learning. Review of approaches utilized by other Asian countries with similar issues will be looked at vis a vis the data analyses on traffic movement, public transport system utilization, and the use of private transport in NCR. The results of the study will inform strategies to increase mobility in Metro Manila.

Master's degree program in nursing informatics at Tehran University of Medical Sciences

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Master's degree program in nursing informatics at Tehran University of Medical Sciences
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According to the NMC standards of proficiency for nurses, it is essential to be proficient in applying digital technology in order to maximize the use of resources and provide interdisciplinary care that is safe and effective for patients. By integrating informatics into nursing science, it will lead to quality care improvement through enhancing patient record storage and retrieval, reducing mistakes, improving information flow, saving time, and empowering patients.

Given the rapid advancement of the information age, it is necessary to invest in informatics education to improve quality of care. Accordingly, the curriculum of Nursing Informatics was developed and the program was launched to admit foreign students into the master's program at the School of Nursing and Midwifery, Tehran University of Medical Sciences in 2022. This program aims to guide nursing students in delivering effective services in clinical performance, education, research, and management through the utilization of information technology.

Key words: education, nursing, quality of health care, nursing informatics, technology

Digital technology to enhance students' learning experience in science education

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We integrated digital technology to enhance students' learning and to support our educational pedagogies. Our goal is to improve students' engagement, develop students' skills like critical thinking, active learning, teamwork, peer-learning, and problem-solving. We utilize digital technology, such as Generative Artificial Intelligence (AI), Hybrid Immersive Virtual Environments (HIVEs) and others, to explore new teaching and learning opportunities for our students. Additionally, we analyzed learning analytics data to investigate the impact of digital technology on students' learning.\r\nOur approach included flipped classroom and blended learning, which incorporate virtual learning spaces, outside classroom components, and technology-assisted laboratory classes. We aimed to enhance students' learning experience and increase engagement by utilizing virtual learning tools such as Blackboard LMS, Panopto, Padlet, Zoom, MSTeams, EDtools, Microsoft Onedrive, MSform and Interactive Whiteboard (IWB).\r\nFeedbacks from surveys and students' responses were positive, with high satisfaction and enjoyment reported. Academic performance also indicated a positive impact on learning outcomes. Our preliminary results may post the potential to create new learning opportunities in tertiary all-round education. Furthermore, these findings can help us to redesign "new-normal" learning approaches after the COVID-19 pandemic.

Recent Advances in AI for Personalized Education: A Case Study from Chiang Mai University

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Chiang Mai University

In an era where generative AI reshapes educational paradigms, Chiang Mai University has embarked on a transformative journey to incorporate Large Language Models (LLMs) into its pedagogical practices towards personalized learning. Personalized education aims to tailor the learning experience to individual students, considering their unique needs, interests, and abilities, making them active participants in their own learning process, and emphasizing personal freedom and autonomy. This article examines a policy-driven initiative, supported by a comprehensive framework, demonstrating progress in tailoring learning trajectories and enhancing student engagement through three key strategies. Firstly, it explores the use of LLMs to enable flexible class deliveries, through customized quiz assignments, interactive Q&A, and individualized project-based learning. Secondly, it addresses the shift from outcome-oriented assessment to process-driven learning, accommodating diverse learning styles through self-directed and self-reflection learning activities. Lastly, it highlights the importance of ethical guidelines in AI tools' application, ensuring a balanced approach to educational technology. The discussions offer insights into the potential of LLMs to transform educational paradigms, offering lessons for policymakers and institutions aiming to leverage AI for personalized education.

Collaborative International Joint Class cultures in broaden global engagement

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Collaborative Online International Learning (COIL) has been explored for the past decade but has gained popularity in the last 5 years, especially during the pandemic period. COIL fosters collaborative learning among educators and students by encouraging partnerships between them. Additionally, hybrid COIL offers flexibility in knowledge exchange to more students by removing traditional face-to-face boundaries. \r\n\r\nUNAIR has been continuously conducting COIL in form of Joint Class with high enthusiasm observed since 2022 where 22 activities from 11 faculties followed by 17 joint initiatives from 9 faculties in 2023. The program was a one semester credit subject. The developing COIL with new or existing partners from Poland, the Netherlands, Mongolia, Thailand, and notably Malaysia with 10 universities. \r\n\r\nCOIL has effortlessly increased the number of inbound students and serves as the initial phase to introduce UNAIR as a potential further post-graduate study host. In 2022, 329 students were online and 106 students via hybrid, while in 2023 there were 6 students online and 136 students via hybrid. However, this expansion comes with challenges. Educators of online courses should incorporate pedagogical approaches that leverage the unique features and opportunities provided by these increasingly favored modes of learning.

Revolutionizing Learning: The intersection of Education Technology, Shared Leadership and Mutual Assistance

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The Hong Kong Polytechnic University[1], Rikkyo University[2]

Technology innovation facilitate collaborative learning activities and enhances shared leadership. Shared leadership has proven to be a key factor for teams that were better able to learn, innovate and perform. In order to reap the benefits of shared leadership, educators should ensure that shared leadership structures and processed are authentic and carefully designed in a digital learning environment. Nevertheless, digital learning environment can induce uncertainties and interdependence among team members. Mutual assistance can play a significant role on team effectiveness. Our study aims to answer two questions (a) whether mutual assistance will positively affect perceived group effectiveness (b) whether shared leadership will moderate the relationship between mutual assistance and perceived group effectiveness. Using structural equation modelling method with a sample of 411 undergraduate students in Hong Kong. We found that mutual assistance can strengthen member's perception of group effectiveness, nevertheless, shared leadership has no effect on this relationship. These findings make a valuable contribution to the literature of digital team effectiveness. When leadership is over-shared, it has no effect on team dynamics and a more comprehensive shared leadership model is required. The study proposes specific suggestions for the use of education technology to improve shared leadership and team performance.

Sustainable Innovations: The Role of Green Technology in Achieving Educational and Environmental Goals in Philippine Universities

GREG EMMANUEL BANIAGA

San Beda University

This study explores the integration of green technologies within Philippine Higher Education Institutions (PHEIs) and assesses their contribution to national sustainability and to the quality of education amidst the rising demands of educational technology. Utilizing sustainability reports from various PHEIs as primary data sources, this research employs a comprehensive qualitative case study approach. Qualitative analyses were conducted to describe the reductions in energy usage and carbon emissions aided with interviews and case studies to investigate the practical application of green technologies in educational settings. Results suggest that PHEIs implementing green technologies not only significantly lower their operational costs and environmental impact but also enhance their educational offerings. These institutions provide students with hands-on learning experiences in sustainability, which are vital for fostering environmental awareness and responsibility. The study posits that effectively integrated green technology supports PHEIs in becoming leaders in environmental education, thereby contributing to broader societal sustainability goals. In conclusion, the research advocates for increased adoption of green technologies in PHEIs, recommending strategies for implementation and policy development that promote sustainable practices across other higher educational institutions.

Digital Citizen Participation Platform for Disaster Management: A User Evaluation from a Developing Economy

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National University

This study examines the efficacy and impact of the BosesKo, a Digital Citizen Participation (DCP) platform designed to foster dynamic communication between Philippine citizens and their government, addressing issues in disaster management. Developed through a value-sensitive design approach, the platform was rigorously evaluated employing the Framework for Evaluation in Design Science Research (FEDS). A comprehensive survey, grounded in User Experience Design (UEQ) principles, was administered to 584 citizens, supplemented by open-ended questions probing the integration of human values into the platform design. To deepen the evaluation, interviews were conducted with 16 government officials following a live demonstration of the BosesKo platform. The findings reveal that the platform offers users a compelling mix of practical utility and positive emotional engagement. Moreover, as confirmed by citizen and government respondents, the platform successfully encapsulates the human values intended in its design. These promising outcomes pave the way for further refinements to the BosesKo platform, optimizing its functionality for citizens and governmental agencies in disaster-related scenarios.

Predictive Modeling in University Admissions: A Case Study at a Private University in the Philippines

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Universities traditionally use high school grades and entrance exam scores for their student admissions. However, in response to the evolving landscape of student admissions, universities are increasingly turning to data science to enhance their selection process. This study investigates the development of data-driven methodologies in the admissions process of a private university in the Philippines. Using the admissions data from entry batches 2018 to 2020, different regression models were built to predict the general weighted average (GWA) of these students during their first year in the university. Notably, models such as Extreme Gradient Boosting, Gradient Boosting, and Linear Regression had the best predictive capabilities, with Extreme Gradient Boosting achieving an RMSE of 0.3435. Furthermore, the models were able to identify key factors influencing first-year GWA, providing valuable insights for admissions decision-making. By incorporating these findings into the selection process, the university admissions office can identify prospective students more accurately thereby enhancing students' overall success.\r\n\r\nAuthors: Kimberly May Vallesteros kimberlymay.vallesteros@uap.asia, Klariza Marie Leander, Rey Vincenzo Cruz

DATA-DRIVEN CURRICULUM ANALYSIS: INFORMING UNIVERSITY POLICY WITH CURRICULUM POSITION MATRIX

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Chiang Mai University

Understanding curriculum market positioning is crucial for strategic decision-making in higher education, particularly undergraduate programs. This study employs a data-driven approach to analyze curriculums at Chiang Mai University, integrating internal and external data. The analysis examines curriculum from two key perspectives: the number of admission students and the tuition fees. The sources of data are determined and transformed using various tools, subsequently are integrated before the analysis. By linking these factors, the analyzing aims to offer valuable insights by revealing popularity, perceived value, and the competitive positioning of programs within the groups of specific universities in Thailand. The resulting “Curriculum Position Matrix (CPM)” categorizes curriculums across a variety of 10 positions, ranging from high perceived value and popularity to curriculums requiring significant improvement. Our university analysis using the CPM reveals a well-positioned curriculum profile. Notably, roughly 64% of curriculums fall into standard or higher positions, with approximately 39% categorized as “Beyond Standard”, followed by 28% as “Standard”, and 17% achieving the “Top in Class”. By leveraging the results, we gain insights into competitiveness, guiding and supporting curriculum development and strategic decision-making for university administrators.