2026

International Conference on International Colleges

Seventy Years Forward: Liberal Learning for a Changing World

Thursday, June 25, 2026

Tunghai University International College

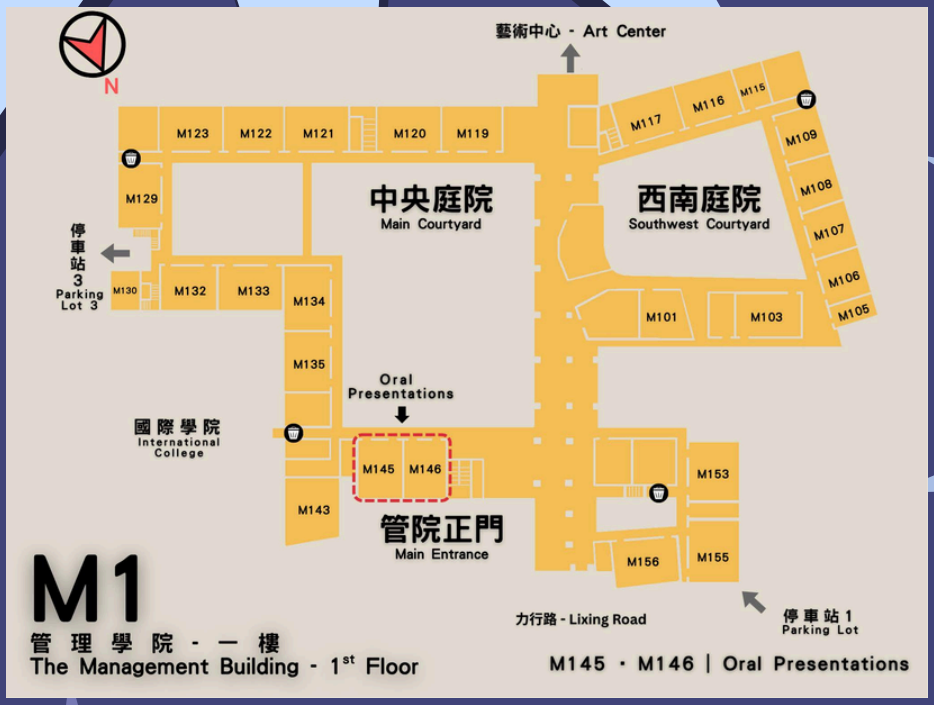
Table of Contents

Program at a Glance

8:45 - 9:10	**Registration** M244		
9:10 - 10:10	**Oral Sessions 1-A** M145	**Poster Session 1** M232 & M223	
10:10 - 10:30	**Morning Tea** M232 & M223		
10:30 - 12:30	**Oral Sessions 2-A** M145	**Oral Sessions 2-B** M146	
12:30-1:30	**Lunch** M232 & M223		
1:30 - 3:30	**Oral Sessions 3-A** M145	**Oral Sessions 3-B** M146	**Program Introduction Session** M244 **Poster Session 2** M232 & M223
3:30 - 4:00	**Afternoon Tea** M232 & M223		
4:00 - 5:00	**Keynote Adress** M201		
5:00 - 5:30	**Awards & Closing** M201		

Maps


台灣大道
1200巷
台中捐血中心
Taichung Blood Centre
福林路
Fulin Rd.
家樂福西屯店
Carrefour Xitun
Taiwan Blvd. Sec 4 - 台灣大道四段
東海大學
第二教學區
Tunghai Second Campus
第二校大門
Second Campus Main Gate
AI
研究AI中心
AI Centre
工業區中油站
CPC Taichung Industrial Park Petrol Station
汽車停車站
Scooter Parking Lot
創新育成中心
Innovation Centre
停車站1
Parking Lot-1
側門
Side Gate
力行路 - Lixing Road
IC
國際學院
International College
停車站2
Parking Lot-2
工業區一路2巷
N
M
管理學院
The Management Building
停車站3
Parking Lot-3
*Based on Google map data


N
藝術中心 - Art Center
M123
M122
M121
M120
M119
M117
M116
M115
M109
M108
M107
M106
M105
M129
中央庭院
Main Courtyard
西南庭院
Southwest Courtyard
停車站3
Parking Lot 3
M130
M132
M133
M134
M135
M101
M103
Oral Presentations
國際學院
International College
M145
M146
M143
M153
M156
M155
管院正門
Main Entrance
力行路 - Lixing Road
停車站1
Parking Lot
M1
管理學院 - 一樓
The Management Building - 1st Floor
M145 · M146 | Oral Presentations


N
M222
M221
M220
M219
M218
M217
M215
M214
M213
M207
M228
中央庭院
Main Courtyard
西南庭院
Southwest Courtyard
M206
M205
M204
M203
M229
M230
M231
M232
M233
M201
Poster Presentations
Registration & Program Introduction Session
Keynote & Prize Giving
M242
M243
M244
M245
M246
M240
圖書館
Library
M251
M2
管理學院 - 二樓
The Management Building - 2nd Floor
M201| Keynote & Prize Giving
M232 · M233 | Poster Presentations
M244 | Registration & Program Intro

Oral Presentation Schedule

	Session 1-A (M145) **Chair: Makiko Yurita**	
9:10-10:10	**Iljoon Park** (Wongkwang University). "General Education for Nonhumans: From an extended viewpoint of humankind"	
	Lucas Scripter (The Hong Kong Polytechnic University), "Animal Grief and Meaning in Human and Other Animal Lives'	
10:30-12:30	**Session 2-A (M145)** **Chair: Subashini K. Rajanthran**	**Session 2-B (M146)** **Chair: Imed Nsiri**
	Michael Mikulewicz (State University of New York ESF), "NOT At All Costs: Climate Justice, Democracy, and the Promise of Liberal Education*	**Marc Lanteigne** (Arctic University of Norway), "Critical Theory and Political Science: ' Radical' Views from the Arctic"
	Jessica Sze Yin Ho (Heriot-Watt University), 'From Learning to Impact: Connecting Teaching, Research, and Real-World Relevance*	**Svitlana Kosolapova** (Tzu Chi University), "Reading War Across Contexts: Feminist Film Analysis and Global Visual Literacy in Ukrainian Cinema"

10:30-12:30	**Julien Paret** (Alliance University) Learning to Flow: Liberal Arts Education and the Formation of Adaptive Strategists in a World in Motion	**Aining Hsieh** (National Chi Nan University), "Trend Changes in Southeast Asian-Themed Content on Public Television Service (2001-2024)"
1:30-3:30	**Session 3-A (145)** **Chair: Jessica Sze Yin Ho**	**Session 3-B (M146)** **Chair: Julien Paret**
	Makiko Yurita (National Institute for School Teachers and Staff Development), "Beyond Instrumental Utility: Reframing Empowerment through the Mode of Being in Liberal Arts and Bilingual Education"	**Subashini K. Rajanthran** (University of the Arts Singapore), 'Curiosity, Creativity, Criticality: An AI-Resilient Framework for English-Medium Higher Arts Education"
	Krystie Wills (American University of Shariah), "Building ESL Students' Presentation Skills While Leveraging GAI and PB"	**Kai Wah Hen** (Universiti Tunku Abdul Rahman), 'Cross-Border E-Commerce in Southeast Asia: A Qualitative Study of Challenges and Opportunities for Taiwanese Merchants"
	Imed Nsiri (American University of Sharjah), "Arab Heritage in an English Language Context"	**Yulis** (National Chung Hsing University). "'Building Bilingual Environment in Taiwan:" Bridging Policy and Practice in Public Education

	Keynote Speaker
4:00-5:00	**Chi-Hung Juan** (National Central University), "'Unlocking Brain Potential: What and How to Learn in the AI Era'

Oral Presentations

Keynote

Unlocking Brain Potential: What and How to Learn in the AI Era

Chi-Hung Juan, National Central University

Join me as we explore the history of AI and its profound impact on our daily lives and the academic world through the lens of brain science. With this foundation, we will focus on how students and educators can proactively harness the power of these rapidly evolving AI tools to effectively pursue their goals. I look forward to an interactive brainstorming session with the audience as we envision an even brighter future in the AI era together.

Invited Speakers

From Learning to Impact: Connecting Teaching, Research, and Real-World Relevance

Jessica Sze Yin Ho, Edinburgh Business School, Heriot-Watt University, Malaysia

In higher education, teaching, research, and impact are often treated as separate domains, with research outputs (i.e. publications) frequently regarded as a strong indicator of success. This separation can limit the potential of academic work to influence real-world practice and to enrich student learning. This paper proposes a reframing of these roles by focusing on how learning connects teaching, research, and real-world relevance.

Research is understood not only as the production of knowledge but also as a process through which knowledge is translated and applied in real-world contexts. This aligns with Boyer's concept of the scholarship of application, which emphasizes connecting academic knowledge to practical and societal needs. In practice, this includes both traditional outputs (e.g., publications, case studies) and applied engagement (e.g., industry collaboration, professional dialogue, and public-facing work). Through these interactions, knowledge is tested and extended beyond academic settings.

These experiences have direct implications for teaching. Constructive alignment emphasizes aligning learning outcomes, teaching, and assessment. If real-world relevance is an intended outcome, then learning experiences, teaching activities, and assessment need to be appropriately designed to support that goal. This includes creating opportunities for students to engage with authentic problems and apply knowledge in meaningful contexts.

Building on these perspectives, this paper introduces a cyclical model linking Learning, Research, Impact, and Teaching. Learning—shaped by prior experience and ongoing inquiry—drives research; research that engages with real-world contexts generates impact; and these experiences return through teaching to enrich future learning. Together, these elements form a continuous, reinforcing cycle.

Critical Theory and Political Science: 'Radical' Views from the Arctic

Marc Lanteigne, UiT – The Arctic University of Norway, Norway

One of the current 'great debates' in political science today has centered on the emergence of subjective (or sometimes referred to as 'post-positivist' or 'radical'), approaches to the discipline. This has taken place because of the growing multidisciplinary nature of the subject, as well as the introduction of new voices, histories, languages, and perceptions into the major questions surrounding political studies. The result has been a dramatic questioning of longstanding tenets of both domestic and international politics, including concepts of 'the state', 'government' and 'sovereignty'. Who defines these concepts, have they changed due to current political questions, and how to make sure that the study of political science within social sciences remains relevant? These questions will be addressed from the viewpoint of the far north, as the Arctic is facing many political questions which fall beyond the traditional concepts of hard politics. These include the environment, human rights / intersectionality, Indigenous knowledge, gender and sexuality, human security, and the issues of neo- and post-colonialism, and all of these are having to share space with the 'return' of geopolitics and military security in many political science discourses. Why has critical theory now received the attention that it has despite its label as radical and disruptive? What can political studies and liberal arts and social sciences learn from these approaches, and can one point to the Arctic as a specific model for the (normative?) advancement of these debates?

NOT At All Costs: Climate Justice, Democracy, and the Promise of Liberal Education

Michael Mikulewicz, State University of New York ESF, United States

Among today's global challenges such as growing authoritarianisms and pernicious inequalities, the crisis of climate change presents itself as an opportunity for humanity to unite and bring down the rising temperatures together. After all, climate change is touted as the 'Great Equalizer' that will spare no region, society, or species from its negative effects. Scientists sound alarm bells urging global leaders to tackle greenhouse gas emissions and to help prepare the most vulnerable for the now unavoidable impacts climate change. The world feels a justifiable sense of urgency to act. In such an environment, one could be tempted to set all our differences aside in the name of 'our common future'.

I argue that there is grave danger hiding in this kind of rhetoric. A crisis like climate change is certainly a huge challenge, with countless lives and livelihoods at stake. However, a crisis like this is also an opportunity to deploy expensive technologies of dubious pedigree and effectiveness, or to turn to market solutions -- the vehicle of growth that caused climate change in the first place, or -- perhaps most worryingly -- to enact policies that disenfranchise many to the benefit of the few.

So, how do we address the climate crisis without increasing the already rampant social, economic, and political inequalities around the planet? This is one of the questions posed by the growing scholar-activist field of climate justice. In this talk, I will discuss what a climate justice lens brings to debates on climate change, as well as the ways to ensure that our responses to it do not become undemocratic, or worse still -- harmful and oppressive in the long term. In this context, I will discuss liberal education as a kind of education that helps keep us civically vigilant and suspicious of totalizing rhetorics that try to erase difference and democracy in the name of solving climate change.

Beyond Instrumental Utility: Reframing Empowerment through the Mode of Being in Liberal Arts and Bilingual Education

Makiko Yurita, National Institute for School Teachers and Staff Development, Japan

This presentation introduces a theoretical framework to address the conceptual ambiguity of empowerment by integrating Erich Fromm's ontological modes of "having" and "being" into a Four-Quadrant Model. Structured along two axes, which are having/being and individual-performative versus collective-democratic orientations, this model enables a

systematic critique of contemporary discourses on education. These discourses predominantly operate within the mode of having, prioritising the acquisition of measurable competencies and reducing learning to its instrumental utility within a human-capital framework.

Applying this model, the study first reconceptualises liberal arts education not as the mere possession of knowledge, but as the embodiment of shared values through dialogue and as a community-building project for critical inquiry. In the context of rapidly advancing AI technologies, it further argues that the core value of bilingual education lies not in language acquisition per se, but in a practice that renders visible the contexts embedded in each language and enables movement across them.

Together, these approaches constitute a necessary medium for cultivating a critical mode of thinking that can render the constraints of language both visible and workable. In an era marked by processes of globalisation and standardisation, which increasingly decontextualise knowledge and communication, such a mode of thinking becomes indispensable. It fosters both the capacity and the disposition to render visible and place in relation the contexts embedded in different languages, while cultivating a mode of being oriented toward relativising and critically examining one's own contexts.

These integrated capabilities are essential for restoring and collectively sustaining contexts that can be regarded as trustworthy, thereby providing a basis for meaningful communication and shared understanding. The presentation thus argues that achieving this requires a critical rebalancing of the discourses on education currently skewed toward the mode of having, through a renewed evaluation from the perspective of being.

Oral Presentations

Cross-Border E-Commerce in Southeast Asia: A Qualitative Study of Challenges and Opportunities for Taiwanese Merchants

Kai Wah Hen, Universiti Tunku Abdul Rahman, Malaysia

Since 2015, e-commerce markets in Southeast Asia have grown leaps and bounds into being the world's fastest-growing online market. Cross-border e-commerce starts to flourish as local businesses venture into other economic regions and markets. The establishment of various regional economic cooperations and initiatives, such as Belt and Road Initiatives (BRI) and the Regional Comprehensive Economic Partnership (RCEP), has helped to accelerate the development of cross-border e-commerce among its country members.

With the New Southbound Policy, Taiwanese businesses are encouraged to tap into Southeast Asia's burgeoning e-commerce market. Within such a dynamic developments, the onus is on the Taiwanese e-commerce players to tap into these cross-border e-commerce opportunities while remaining resilient towards the challenges that lie ahead. The primary objectives of this research are to identify the key challenges and opportunities faced by Taiwanese businesses in cross-border e-commerce operations in Southeast Asia, and to examine the impact of regional economic cooperation on cross-border e-commerce in Southeast Asia. The study adopts a qualitative approach with in-depth interviews with respondents from Taiwanese e-commerce related businesses, trade associations, e-commerce platform providers, and relevant government agencies. Driven by domestic saturation and intense competition from mainland China, Taiwanese e-commerce companies are expanding into Southeast Asia to leverage its massive market potential, cultural similarities and advanced mobile first digital infrastructure, supported by favorable government policies and full-service technological solutions. At the same time, Taiwanese merchants face significant hurdles in Southeast Asia expansion due to a lack of localization and brand-building investment, intense competition from regional rivals, and a lack of practical government support, compounded by complex regulatory barriers like Halal certification and exclusion from major trade agreement.

Trend Changes in Southeast Asian-Themed Content on Public Television Service (2001–2024)

Aining Hsieh, National Chi Nan University, Taiwan

According to statistics from Taiwan’s Ministry of the Interior and Ministry of Labor, the populations of Southeast Asian marriage migrants and migrant workers in Taiwan have shown steady growth over time. Within this context, Public Television Service (PTS), as a public broadcaster with educational and cultural responsibilities, plays a significant role in addressing multicultural issues through its programming and in fostering mutual understanding between Taiwanese society and Southeast Asian communities.

This study examines PTS programs related to Southeast Asia. Data are drawn from official sources, including program schedules of the main PTS channel since 2000, the PTS+ streaming platform, and the official YouTube channel, ensuring the reliability and completeness of the dataset. The selection criteria include, but are not limited to, programs focusing on Southeast Asian countries, addressing Southeast Asian sociocultural contexts, or portraying the lived experiences of Southeast Asian migrant workers and new immigrants in Taiwan.

The findings indicate that PTS has consistently produced Southeast Asia-related content since 2000. Prior to 2010, programming primarily focused on marriage migrants. After

2010, the scope expanded to include a wider range of topics, such as political developments in Southeast Asia and the everyday lives of migrant workers in Taiwan. Since 2018, PTS has also introduced multilingual news programs in Indonesian, Thai, and Vietnamese. By 2024, additional initiatives emerged, including Vietnamese-language educational programs designed for children.

Overall, PTS programming demonstrates an increasing diversification in its representation of Southeast Asia. These developments not only enhance Taiwanese audiences' understanding of Southeast Asian societies but also provide Southeast Asian communities in Taiwan with greater access to information in their native languages, highlighting the broadcaster's role in promoting multicultural communication.

Reading War Across Contexts: Feminist Film Analysis and Global Visual Literacy in Ukrainian Cinema

Svitlana Kosolapova, Tzu Chi University, Taiwan

The feminist movement in Eastern Europe has developed in close interaction with nationalist and postcolonial discourses. In Ukraine, this intersection is particularly visible, as ongoing war and processes of nation-building shape both cultural production and gender representation. In such contexts, war is not only a political or military phenomenon but also a gendered one, structured through expectations of care, endurance, and survival that are unevenly distributed.

Cinema provides a crucial medium through which these dynamics can be examined. Contemporary Ukrainian films move away from direct depictions of combat, instead focusing on civilian life, domestic space, and the psychological effects of prolonged conflict. Within these narratives, female figures often become central—not simply as characters, but as sites through which war is made visible and emotionally legible.

While feminist film theory offers tools for analyzing the construction of gender on screen, I argue that in wartime contexts it also enables a deeper reading of how ideology operates through representation. Female bodies and domestic spaces become carriers of meaning, through which national trauma, resilience, and continuity are communicated. This makes feminist analysis essential for uncovering how war is mediated beyond the battlefield.

Focusing on Klondike (2022, dir. Maryna Er Gorbach), this presentation examines how indirect visual strategies—such as off-screen violence, spatial disruption, and everyday routines—construct resilience as a gendered condition. The film simultaneously reproduces and critiques wartime ideology: it positions the female protagonist as a bearer of survival, while exposing the unequal burden placed on women to sustain life under conditions of insecurity and limited protection.

By bringing Ukrainian cinema into English-language academic discussion, this study highlights how feminist film analysis can function as a form of global visual literacy—offering tools to critically read how war, gender, and responsibility are constructed across cultural contexts.

Arab Heritage in an English Language Context

Imed Nsiri, American University of Sharjah, United Arab Emirates

In my capacity as an instructor at the American University of Sharjah in the United Arab Emirates, I primarily teach courses on Arab heritage in English. My students are predominantly first-year undergraduates who come from a wide range of cultural and linguistic backgrounds. Rather than constituting an obstacle, this diversity presents a valuable opportunity to examine key issues from multiple perspectives. Many of the students initially possess a one-sided understanding of heritage topics. In this presentation, I will focus on two of the courses I teach—The Andalusian Symbiosis and Introduction to Arabic Heritage II—and discuss the pedagogical strategies I employ in each. For instance, instead of delivering a naive lecture that simply presents Muslim Spain as a harmonious convivencia, I encourage students to problematize the concept and engage critically with the historical narrative. In Introduction to Arabic Heritage II, we, for example, analyze the distinction between Sharia and Fiqh. Through this presentation, I will demonstrate how these strategies foster student engagement with complex topics and support the development of their analytical skills. In a rapidly evolving world, the aims of liberal learning have never been more critically important.

Learning to Flow: Liberal Arts Education and the Formation of Adaptive Strategists in a World in Motion

Julien Paret, Alliance University, India

Liberal education is not only a curriculum; it is a comprehensive system that obliterates the boundary between academic and experiential learning, operating as a constant flow, reminiscent of Laozi's renowned allegory of water, owing to its universality, adaptability, and incompressibility. It adjusts itself to the dimensions and contours of any vessel, embodying soft and hard skills while carrying a message of intelligent adaptation and understated strength, helping students to find out their true selves without loss of coherence, like wild herbs thriving amidst concrete. Based on my experience as a foreign administrator and professor in the postcolonial, multilingual, and illiberal context of

contemporary India, where the dominance of STEM fields affects both the socio-economic environment and public perceptions of successful upbringing, I argue that liberal learning should focus on developing adaptive strategists. This can be achieved by converting conventional pedagogy into world-building, educators into mentor-engineers, and learners into socio-political actors, ensuring that academic disciplines are, above all, actively lived. In this sense, lecture halls should be reinvented into spaces of translation, experimentation, and action—practical labs for transversal, horizontal, intercultural interactions where individual perspectives engage rather than conform. This presentation asserts that liberal education is no longer solely a product of Western institutions but instead a multifaceted reflection of diverse and dynamic settings. This positions international colleges as compelling conduits for training innovators, leaders, critical thinkers, and problem solvers who are prepared to read, navigate, and impact complex, unstable, and volatile environments with clarity, flexibility, humanity, and humility. It therefore envisions liberal learning as a catalyst for adaptive strategists whose attributes, abilities, and qualities may concurrently integrate the ancient with the modern and the local with the global.

General Education for Nonhumans: From an extended viewpoint of humankind

Iljoon Park, Wongkwang University, Republic of Korea

In the Anthropocene, it is nonhumans, rather than humans, that are at stake. The negative impact of climate change, ecological crises and pandemics is now being felt in the world and is being caused by non-human entities exercising their own forms of agency. Humans must reconsider the idea of 'educating' nonhumans if they are to transform these negative response-abilities by nonhuman hyperobjects. Yet, how can we educate those who do not communicate with humans in language, and how can we go about doing so? Since nonhumans include inanimate beings, the notion of educating them may seem misguided. If education means the structured or informal process of acquiring knowledge, skills, values, beliefs, and habits, enabling individuals to adapt to the society to which they belong, it would be nonsense to educate non-humans. However, non-human education is all about exchanging perspectives. It involves exchanging perspectives with non-humans. In other words, it is to subvert our traditional understanding of education insofar as it is to enable individuals to get a robust position on the (conscious) subject. In contrast, nonhuman education is to direct our attention to the object-oriented perspective. The aim is to understand things and reality from an object-oriented perspective. We need to revise our understanding of being if we are to move away from the concept of isolated individuals and view education not simply as individual training. No being exists in isolation. The concept of being is all about sympoiesis, which is a term used to describe the process of co-becoming with others, including non-humans. Within this network of agencies, humans

can take on a role of 'response-ability' — the ability to respond to non-human actors, both within and beyond ourselves.

Curiosity, Creativity, Criticality: An AI-Resilient Framework for English-Medium Higher Arts Education

Subashini K. Rajanthran, University of the Arts Singapore, Singapore

The rapid advancement of generative artificial intelligence (AI) is reshaping higher education, challenging traditional notions of authorship, assessment, and academic voice. This disruption is particularly pronounced within English-medium instruction (EMI) in international colleges, where students learn across linguistic and cultural boundaries. In such contexts, AI can simultaneously support language development and obscure authentic expression, raising critical questions about how liberal learning is enacted and assessed in a changing world.

This paper presents an institutional case study from an Asian arts college, where AI integration has prompted a cross-disciplinary re-evaluation of pedagogical practices. Drawing on faculty symposiums and curriculum redesign, the study proposes a comprehensive framework for AI-resilient pedagogy grounded in three strategic pillars: provoking Curiosity, sustaining Creativity, and enhancing Criticality.

Curiosity is fostered through speculative prototyping, where students engage in embodied exploration before using AI to visualise ideas. Creativity is sustained through collaborative scaffolding in multilingual classrooms, prioritising foundational disciplinary skills to develop an authentic academic and creative voice in English. Criticality is enhanced through process-led assessment models, including viva voces, reflective journals, and prompt deconstruction, which foreground students' cognitive and linguistic development over final outputs. Complementing these shifts is an institutional AI literacy framework that equips educators to design learning responsibly while empowering students to critically engage with AI as a co-participant in knowledge production. Ultimately, these initiatives demonstrate how EMI institutions can evolve liberal learning for the future, balancing technological advancement with human-centred, globally relevant education.

Animal Grief and Meaning in Human and Other Animal Lives

Lucas Scripter, The Hong Kong Polytechnic University, Hong Kong

Can non-human animals live meaningful lives or is meaning the exclusive purview of

human beings? While the dominant theories in the analytic discourse on meaning in life have focused almost exclusively on the lives of human beings, some recent writers including, notably, Duncan Purves, Nicolas Delon, and Katie McShane, have defended the view that non-human animals, too, may lead lives of meaning. In this paper, I will focus on the phenomenon of animal grief in connection with those philosophical theories of grief offered by Matthew Ratcliffe and Michael Cholbi, both of whom connect the capacity for grief to the possibility of leading meaningful lives, albeit in different ways. After discussing the vexed question of whether non-human animal grief can count as genuine grief, I will argue that animal grief reveals the capacity for animals to live meaningful lives that is continuous with human lives, yet still importantly different from them as human grief and human meaning are marked by our self-interpreting capacities as we are, in the words of Charles Taylor, "self-interpreting animals."

Building ESL Students' Presentation Skills While Leveraging GAI and PB

Krystie Wills, American University of Sharjah, United Arab Emirates

In my context, a pre-matriculation university program in the UAE, my CEFR B2 students gain skills and knowledge through a scaffolded project that leads them from the information-gathering stage to class presentations. In fact, research suggests that scaffolding gradually helps students gain and internalize skills (Yang, 2024).

Generative AI offers me efficient tools to prepare content for my students' presentations. As Downes mentioned in 2017, "Cognitive processes like information processing are increasingly being supported [...] by technologies such as Artificial Intelligence." Specifically, I can minimize a time-consuming, administrative part of teaching - gathering information - so that I have more time to nurture my students so they can develop a myriad of skills needed for university success.

In my presentation, I will explain how I quickly generate fact sheets using GAI on a variety of topics which are then distributed to students who leverage the information for oral presentations. In the month-long project, they read for understanding and vocab enrichment, select and paraphrase details to support a presentation outline, learn to use Google tools (Docs, Sheets and Slides), and create visuals for use during the presentation. Through the project, students refine not only grammar and writing skills but also pronunciation and speaking skills. They develop confidence through rehearsal, by actually learning information on completely novel topics. When the students present to their peers, they speak like mini-experts. They shine. As Zohirovna mentioned in 2025, PBL leads students to refine linguistic, interpersonal and critical skills, and the meaningful, authentic nature of projects encourages engagement, which in turn leads to retention of the improved skills.

Students realize via this project that a substantial investment of time and energy is required to prepare successful presentations; even more, that the reward is not only a good grade but feelings of pride and satisfaction.

Building Bilingual Environment in Taiwan: Bridging Policy and Practice in Public Education

Yulis, National Chung Hsing University, Taiwan

The (National Development Council, 2023) stated that Taiwan's Bilingual Nation 2030 policy will create a bilingual environment in which Mandarin and English are used in education, public services, professional communication to improve English proficiency and further enhance Taiwan's international competitiveness. to support Taiwan's internationalization process (Ministry of Education, 2018).

Despite the goals outline in these policies, many scholars have indicated several gaps between the vision of policy and classroom practice. Ngangbam (2022) discusses some problems related to teacher preparation, uneven distribution of resources, and inadequate institutional support. The rapid development in AI technologies, including AI-assisted language learning and creative platforms like AI SUNO, has opened new frontiers for supporting English learning environments. However, these technologies have hardly penetrated bilingual education policy or practice at the classroom level.

The highlight implementation gap between the policy and actual practice of bilingualism in public education in three dimensions: building English learning environments, enhancing bilingual teaching capacity, and recognizing AI-supported learning tools as strategic resources. Based on a quantitative survey, the research collected data from teachers and university students on their perceptions of policy implementation, teacher preparedness, and widely toward technology-assisted English learning. The finding are expected to contribute further policy adjustments and interventions.

Initial results show that participants generally support the Bilingual Nation 2030 project but several barriers exist: inadequate teacher training for bilingual instruction, uneven school-wide English learning environments, and underdeveloped use of emerging technologies like AI-based language learning tools.

Business & Social Science Poster Abstracts

High School

Generational Views on a 4-Day Workweek

Shinting Liu, Taichung Municipal Hui-Wen High School

This study examines how different age groups perceive the four-day workweek and its impact on productivity, well-being, and business operations. The results show overall positive attitudes, especially among younger workers, while older workers and managers express more concerns about efficiency and productivity.

Forget the Middle: Why Only the Best and the Last Matter

Jen Chen, Junyi School of Innovation

Shaun Zheng, Junyi School of Innovation

Human memory does not recall experiences by averaging every moment. Instead, it relies on a “highlight reel” dominated by emotional extremes (The Peak) and the final impression (The End). We are going to analyze how Costco leverages this psychological principle to drive customer satisfaction.

Is Taiwan’s 108 Curriculum Reform Working? Challenges, Pressures, and the Path Forward

Isa Hsieh, Washington High School

Taiwan's 108 Curriculum Reform was introduced to promote competency-based education by emphasizing critical thinking, interdisciplinary learning, and student adaptability beyond traditional exam-focused systems. While the reform aims to better prepare students for future challenges, its implementation has revealed significant obstacles, including insufficient teacher preparedness, unequal educational resources, and increased student stress caused by learning portfolios and diversified academic demands. This study analyzes the primary challenges associated with the reform and evaluates their impact on both educators and students. It further proposes strategic solutions, including enhanced teacher training, enriched curriculum design, expanded digital and practical learning opportunities, and stronger student counseling systems. By addressing these structural and practical issues, Taiwan can better bridge the gap between policy goals and educational reality, ensuring that the 108 Curriculum Reform achieves its intended purpose of fostering holistic, future-ready learners.

The Value of Virtual Skins for Players: A Study on the Consumer Psychology and Motivations of Purchasing In-Game Skins

You-Wei Wen, Shin Shing High School

Wei-Hung Chen, Shin Shing High School

Po-Chien Chen, Shin Shing High School

Tsai-Ni Kuo, Taoyuan Municipal Pingjen Senior High School

This study investigates how "cosmetic skins," which do not affect game balance, generate significant revenue within the mainstream "Free-to-Play" business model, while analyzing the psychological motivations behind paying for virtual items that offer no competitive advantage. Based on 200 valid survey responses, the research found that while an overwhelming 85.7% of players show a willingness to purchase, their behavior remains rational, with 72.7% restricting monthly spending to under NT$1,000, indicating a clear "micro-spending" trend characterized by low-cost, incremental purchases. Regarding motivation, emotional factors significantly outweigh utility; the primary drivers are "affinity for the character" (68.6%) and the appeal of "exclusive collaboration skins" (65.7%), demonstrating that players prioritize emotional attachment over simple cost-performance ratios. Furthermore, although nearly half of the respondents log over three hours of playtime daily, this high level of engagement does not translate into reckless spending, as most players maintain disciplined financial habits. The study concludes that virtual skins have become essential mediums for emotional expression and identity; therefore, the gaming industry should focus on creating "emotional premiums" through deep character engagement rather than competing solely on price or functional attributes.

Decoding the Complexity-Bias Link: Human Strategic Deviations in Nim Games

Sz-Shiuan Chen,
National Hsin Hua Senior High School

Li Fen Huang,
National Hsin Hua Senior High School

Zhi-Jun Ye, National Hsin Hua Senior High School

This study investigates how mathematical complexity impacts human decision-making in Nim games. By quantifying complexity through Grundy values (MEX) and analyzing 900+ player decisions, the research identifies a predictable decay in accuracy that allows for the design of bias-aware AI counter-strategies.

[Methodology]. The framework distinguishes between linear move sets (odd numbers) and non-linear move sets (square numbers). While linear sets offer simple patterns, square sets create complex patterns that challenge human intuition.

[Experimental Results]. The findings reveal a Quadratic Decay Model for accuracy as Grundy levels (G) increase, following the equation: $y = -1.25x^2 - 14.75x + 95.75$ ($R^2 = 0.9935$). A significant gap was observed: humans maintain 95% accuracy in simple patterns but drop to 41% as complexity reaches G=3.

[Strategic AI Applications]. The study identifies "Cognitive Vulnerability Zones" (G=2 and G=3) where human intuition fails. Based on this, an AI Bias-Guidance Strategy was developed to increase win rates by steering opponents into these "Drop Zones."

[Conclusion]. Aligned with global research, the study proposes a "Closed-Loop Teaching Model" (Substitution, Judgment, Verification, Teaching, and Counter-strategy) to help bridge these cognitive gaps and improve strategic education.

From Fans to Founders: A Social Media-Driven Analysis of Youth Consumer Behavior in Student-Led Fan Event Micro-Entrepreneurship

Kai-Ting Tsai, Kang Chiao International School (Linkou Campus)

This study investigates the cyclical relationship between social media engagement, fan motivation, and consumer behavior within student-led K-pop fan events. Rather than exa-

mining a single isolated activity, this research adopts a systems-thinking approach by analyzing a two-phase fan-driven initiative: an idol birthday support event whose surplus revenue was strategically reinvested into a subsequent anniversary exhibition. This reinvestment model forms the foundation of a proposed Fan-Driven Cycle, in which social media engagement leads to participation, participation generates revenue, and revenue enables the expansion of future events.

Data will be collected via a Google Forms questionnaire targeting 30 to 50 valid respondents, measuring key variables including Instagram exposure and interaction, purchasing behavior, spending amount, participant satisfaction, and perceived value. Cross-phase comparisons will assess whether reinvestment resulted in measurable growth in participation and community engagement.

The findings aim to identify the critical factors driving youth consumer behavior in fan contexts and to demonstrate how grassroots fan activities can evolve into sustainable, self-reinforcing systems. This research contributes practical insights for student organizers and independent event planners seeking to design fan-oriented events with long-term impact and operational continuity.

A Study on Factors Influencing Campus Adaptation and Self-Reflection of High School Students from Highly Sensitive Groups

Yu-Chen Cheng, National Hsin Hua Senior High School

This research project investigates Sensory Processing Sensitivity (SPS) among high school students, aligning with the Business & Social Sciences category by examining psychology, human behavior, and educational systems.

Grounded in the DOES model—encompassing Depth of processing, Overstimulation, Emotional reactivity, and Sensing the subtle—the study employs a mixed-methods approach combining quantitative surveys (HSP and HSC-School scales) with qualitative self-narratives.

The findings reveal that 31.1% of students are "Orchids" (highly sensitive), with a significant gender disparity: the detection rate for females (38.6%) is nearly double that of males (19.3%). This gap highlights how social gender expectations and role perceptions influence the disclosure of sensitive traits. Quantitatively, High Sensitive Persons (HSPs) report significantly higher environmental loads (83.4%) and lower adaptation scores compared to the general group, identifying physical noise and social evaluation as primary stressors.

The study validates the "Vantage Sensitivity" theory, demonstrating that while HSPs are more vulnerable to negative environments, they exhibit superior adaptation and growth when provided with external support from teachers and peers. Qualitative data further describes the experience of "social fatigue" but also highlights "compensatory agency," where students leverage their deep processing talents to navigate campus life.

To build an inclusive educational ecosystem, the research proposes institutional strategies: optimizing physical environments with "Quiet Zones," strengthening teacher-student secure attachments, and promoting self-regulation strategies.

By deconstructing gender stereotypes and providing targeted support, schools can transform sensitivity from a psychological burden into a competitive advantage for academic innovation. This project offers a scientific framework for social institutions to better accommodate neurodiversity.

Politics, Economy, and Power

Max Zhan, Washington High School

This topic focuses on global political economy, starting with capital growth and wealth distribution, to explore how economic development affects social inequality. I begin by analyzing charts depicting trends in capital accumulation and wealth concentration, and by comparing tax, education, and social welfare systems across countries to illustrate how these systems influence individuals' opportunities to accumulate wealth. I am also examining the positions of countries such as the United States, China, and Germany in technological development and export competition to understand that the world is moving towards multipolarity rather than a single dominant power.

ESG Factors and Purchasing Behavior Among High School Students

Xuan Li, Washington High School

This study explores the relationship between ESG factors and purchasing behavior among high school students. In recent years, sustainability and environmental awareness have become increasingly important issues in society. However, whether these values truly

influence consumers' purchasing decisions remains unclear, especially among teenagers. Therefore, this research aims to examine how ESG concepts affect students' buying behavior and how price influences their final decisions.

University

Humor as a Face-Saving Strategy: A Narrative Visualization of Social Embarrassment in Everyday Life

Noir Liao, Feng Chia University

This project uses the everyday embarrassment of "farting" as its entry point, transforming a common social mishap into a humorous yet insightful narrative through visual storytelling. Its core objective is to reveal the psychological defense mechanisms people employ when facing threats to their social image. Based on face theory and a framework combining social risk and level of agency, the project develops five "ninja techniques": starting from low-risk avoidance ("play dead"), to remedial action ("take a deep breath"), and progressing toward more manipulative strategies such as "creating a distraction," "seizing the initiative," and ultimately the high-risk "shifting the blame." These techniques illustrate a progressive spectrum of behavioral responses in awkward situations. Targeting Gen Z audiences, the design incorporates chibi-style ninja characters and humorous symbols to reduce embarrassment and foster relatability. By applying the Elaboration Likelihood Model (ELM), the project balances rational understanding with emotional engagement, achieving a communication effect that is "instantly understood and humorously relieving." Ultimately, it encourages viewers to reflect on their own and others' social behaviors through laughter.

Gen Z Buying Behavior on TikTok

Walaiporn Junyakai, Feng Chia University

Weanika Choowong, Feng University

Toshu Tanaka, Feng Chia Univeristy

This poster explores the buying behavior of Generation Z on TikTok and how the platform influences consumer decision-making. As short-form video content becomes increasingly popular, TikTok has transformed from an entertainment platform into a powerful marketing tool. The study focuses on how trends, influencers, algorithms, and emotional engagement affect Gen Z consumers' purchase intentions. In addition, it examines the role of fear of missing out (FOMO), social influence, and personalized content in encouraging impulse buying behavior. The findings highlight that TikTok marketing is highly effective because it creates interactive and relatable experiences that connect with younger audiences. This topic demonstrates the growing impact of social media marketing on modern consumer behavior and provides insights into digital marketing strategies targeting Gen Z consumers.

How Generative Artificial Intelligence Appropriation drives employees' mental well being and innovative behavior: The moderating role of transformational leadership

Jake Tran, Chinese Culture University

Lynn Do, Chinese Culture University

Steven Bui, Chinese Culture University

The rapid spread of Generative Artificial Intelligence (GenAI) is transforming how employees interact with digital technology in modern organizations. However, current research remains limited in explaining how employees appropriate and integrate GenAI into their work processes, as well as the impact of this process on employee outcomes. Based on Adaptive Structural Theory (AST), this study conceptualizes Generative Artificial Intelligence Appropriation (GAIA) as a high-level structure comprising Adaptive Appropriation (AA), Customized Appropriation (CA), Ethical Appropriation (EA), Integrative Appropriation (IAP), and Interface Appropriation (IFA). Using survey data from 616 employees in Vietnam and analysis using Partial Least Squares Structural Equation Modeling (PLS-SEM), this study examines the relationship between GAIA, Employee Engagement (EAG), Employee Learning Agility (ELA), Employees' Dynamic Capabilities (EDC), Mental Well-being (MWB), and Innovative Behavior (IB), while also considering the moderating role of Transformational Leadership (TFL). The results show that GAIA has a positive impact on learning agility and dynamic capabilities, thereby promoting innovative behavior and mental well-being, while the relationship between GAIA and employee engagement is not supported. Furthermore, transformational leadership enhances the impact of GAIA on learning agility. This study contributes to expanding AST in the context of generative AI, and clarifies the competency mechanisms through which AI exploitation influences employee outcomes. In practical terms, the results suggest that organizations

should focus on AI literacy, competency development, and leadership styles that support learning to effectively leverage generative AI in the workplace.

Chinese Nationalism Sentiments on Xinjiang Cotton Incident

Yu-I Lin, Wenzao University of Languages

This study examines how nationalist sentiments are discursively constructed and manifested in Chinese consumer behavior through an in-depth qualitative analysis of the Xinjiang cotton controversy. As rising nationalism reshapes China's consumption landscape, the intersection of political consumerism and digital activism has become increasingly evident, particularly within online platforms such as Xiaohongshu. Drawing on the concept of Political Consumerism, Framing theory and Social Identity Theory, this research explores how online users frame nationalist narratives, express cultural confidence, and align consumption choices with patriotic identity.

Using qualitative discourse and content analysis, this study examines 110 online commentaries across ten posts related to the Xinjiang cotton incident to identify recurring linguistic framings and messages that link economic behavior with national pride and resistance to foreign influence. The findings provide insights into diverse consumer perspectives on the incident, revealing a growing sense of economic nationalism expressed through support for domestic products, while also reflecting rational consumer awareness. Moreover, the study uncovers several issues and side effects within the community, such as the over-commercialization of nationalism and the emergence of opposing voices as public attention toward the incident began to decline.
By integrating sociolinguistic and socio-political perspectives, this research contributes to understanding the mechanisms through which digital nationalism influences consumer behavior in China's contemporary market environment. It highlights how nationalism functions as both a cultural and economic force, shaping perceptions of foreign brands amid ongoing geopolitical tensions.

The Impact of Social Media Misinformation on Voter Perception and Political Dynamics in Taiwan: Learning from Other Countries' Counter Disinformation Strategies

Pei Wen Wu, Wenzao University of Languages

Yan Zhi Fang, Wenzao University of Languages

Ying Chi Tsai, Wenzao University of Languages

This research aims to examine the proliferation of fake news during Taiwan's election periods and its impact on Taiwanese voters. We compared censorship mechanisms in other countries to identify potential improvements for Taiwan. First, we used questionnaires to analyze the extent and factors influencing voters' exposure to fake news, identified primary channels through which voters obtain misinformation, and examined whether voters' motivations for using social media affect their ability to discern fake news. We further investigated the cognitive and emotional impacts of fake news on voters, including misperceptions of candidates' images and policies, as well as potential feelings of anxiety, anger, or distrust. Finally, this study compared Taiwan's response strategies and attitudes toward fake news, such as verifying sources, relying on fact-checking platforms, or engaging in social media discussions and contrast them with international countermeasures and mechanisms. This comparison aims to reveal differences in information literacy across varying political cultures and media environments. Through this research, we aim to investigate how fake news impacts elections and public perception, providing insights for enhancing media literacy and introducing international media oversight mechanisms.

The Sustainability Value Bridge: How Integrated ESG Management Transforms Social Advocacy into Long-term Brand Equity at O'right Inc.

Chloe Chen, Tunghai University

For a business to thrive while maintaining sustainability, sustainability must transition from a peripheral cost to a core strategic engine. This project explores the "Value Bridge" at O’right Inc., an integrated model that directly links environmental actions to market success. By investigating the mechanisms that allow a medium-sized enterprise to achieve 100% renewable energy use while expanding globally, this project highlights how a sustainability department functions as the primary link between internal ESG data and external brand influence.

During my internship, I experienced how rigorous data management translates technical ESG metrics into the narratives that build stakeholder trust. A core component of this strategy is the application of Social Return on Investment (SROI) within a “Green

Accounting" framework. This methodology allows the organization to quantify the business value of qualitative social advocacy, transforming environmental commitment into a measurable economic asset.

Through this value bridge, O'right demonstrates that verified sustainability is not just a moral choice but a critical survival mechanism for long-term profitability and international resilience.

The Impact of Artificial Intelligence Adoption on Financial & Operational Performance on Financial Firm

William Reinaldo Chandra, Tunghai University

Felix Bellarmino Immanuel S, Tunghai University

This study investigates the impact of Artificial Intelligence (AI) adoption on firm performance among financial sector companies listed on the Indonesia Stock Exchange (IDX) over the period 2022–2025. Using a 338 initial sample before screening, and that the final sample used in the analysis is 210, it employs pooled Ordinary Least Squares (OLS) regression with robust standard errors to examine the effect of AI adoption on two performance indicators: Return on Assets (ROA), as a proxy for operational performance, and Return on Equity (ROE), as a proxy for financial performance. Control variables include leverage (LEV), firm size (SIZE), price-to-book ratio (PB), and firm age (AGE). The empirical results reveal a positive and statistically significant relationship between AI adoption and ROA, indicating that firms with greater AI engagement tend to achieve higher operational efficiency and more effective asset utilization. In contrast, the effect of AI adoption on ROE is positive but statistically insignificant, suggesting that the benefits of AI adoption for shareholder returns may require a longer time horizon to materialize. Leverage is also found to exert a significant negative effect on ROA, while firm size is the only control variable with a significant positive effect on ROE. These findings suggest that AI adoption contributes more immediately to operational efficiency than to shareholder returns, and that its broader financial impact is likely to emerge over the longer term. This study contributes empirical evidence from an emerging market context and offers practical implications for managers, investors, and policymakers on the strategic value of AI investment in the financial sector.

A Faceless Reality: When Truth is Fabricated by Choice

Ruo Chi Huang, Feng Chia University

Chih Chun Kang, Feng Chia University

Zi Ting Fang, Feng Chia University

Amidst the rapid advancement of digital technology today, AI deepfake technology has completely shattered the golden rule of "seeing is believing." This theme, A Faceless Reality: When Truth is Fabricated by Choice, delves into how image and audio forgery is reshaping the public's perception of reality. When faces can be easily swapped and news footage flawlessly simulated, the information we receive is no longer an objective reality, but rather a product of deliberate "selection" and "generation" by those with ulterior motives. This project aims to expose the crisis of trust hidden behind digital algorithms, awaken public awareness of media literacy, and explore how we can reclaim control over discerning the truth in an era where the line between reality and fabrication is increasingly blurred.

Promoting Sufficient Consumption: A Sustainable Solution for Fast Fashion and Luxury Footwear

Hao-Ting Hsieh, Tunghai University

The fast fashion industry has grown rapidly in recent years, but it has also caused serious environmental problems, such as pollution, resource waste, and large amounts of textile waste. At the same time, the luxury and hype-beast footwear market is becoming more popular, especially among young people. Although these products are often seen as higher quality, their production still consumes a lot of resources and contributes to environmental issues.

This study focuses on the idea of “sufficient consumption,” which encourages people to buy less, use products for a longer time, and make more thoughtful purchasing decisions. The main goal of this research is to explore whether this concept, together with a resale system, can help reduce the negative environmental impact of both fast fashion and luxury footwear.

This research uses a combination of different methods. First, previous studies and reports are reviewed to understand the current situation of the fashion industry and sustainability issues. Then, a survey and interviews are conducted to understand how consumers think about second-hand products, and what factors might stop them from buying used items. In addition, this study also tries to design a simple resale platform using social media to see if it is practical and acceptable for users.

This research explores how Instagram food photos influence restaurant selection decisions among university students. Today, many students rely more on social media platforms than traditional menus or advertisements when deciding where to eat. Instagram, in particular, has become an important source of information because students are constantly exposed to food-related content shared by restaurants, influencers, and other users. This study focuses on how Instagram food photography affects the Information Search and Evaluation of Alternatives stages in the Purchase Decision Process. The research applies Consumer Perception Theory to understand how students respond to visual food content through the stages of exposure, attention, and interpretation. It also uses Bases of Market Segmentation by focusing on Generation Z university students, a group known for being highly active on digital platforms and preferring authentic experiences and peer opinions over traditional advertising methods. The study compares the influence of official restaurant posts and user-generated content (UGC), such as food photos shared by friends, influencers, or customers. Using the concepts of intrinsic and extrinsic cues, the research examines whether casual and unedited food photos appear more trustworthy and realistic than professionally edited restaurant images. The findings suggest that university students are more influenced by peer-generated content because it helps reduce perceived risk before visiting a restaurant. Students often see user-generated posts as more honest and reliable since they provide realistic expectations about food quality, portion sizes, prices, and restaurant atmosphere. The study concludes that authentic customer posts and social proof are more effective in influencing student dining decisions than highly polished commercial photography.

Strategic Feasibility and Comparative Analysis of TCM-Based Functional Foods for Long-Term Gastrointestinal Conditioning

Calvin Chen, Tunghai University

This study aims to evaluate the mechanistic superiority and sustainable development potential of an innovative Traditional Chinese Medicine (TCM) gastrointestinal formulation within the modern preventive medicine market. A significant therapeutic gap exists in current interventions: traditional probiotics are susceptible to degradation by gastric acid and lack immediate efficacy for acute symptoms, whereas chronic reliance on over-the-counter (OTC) medications, such as proton pump inhibitors, is associated with adverse effects including nutrient malabsorption and microbiome dysbiosis. Viewed through the lens of Sustainable Science and Management (SSM), this study employs a systematic literature review (SLR) and comparative matrix analysis to assess the pharmacological mechanisms and market viability of the proposed TCM formulation. Results indicate that the formulation operates via a "dual-action mechanism": achieving rapid gastric acid neutralization (within 15-30 minutes) through sodium bicarbonate, while utilizing botanical

It is expected that promoting second-hand markets and encouraging sufficient consumption can help reduce waste, extend product lifecycles, and improve people's awareness of sustainability. This research also hopes to provide some practical ideas for consumers, businesses, and policymakers to move toward a more sustainable fashion system.

Beyond the Price Tag: How Greenwashing and Self-Identity Influence Gen Z's Green Premium Willingness

Becka Wang, Tunghai University

Karina Ceng, Tunghai University

Queenie Pu, Tunghai University

This preliminary study investigates Taiwanese university students' willingness to pay a green premium for sustainable apparel amidst the prevalence of fast fashion. While environmental awareness and the "Green Chic" concept have popularized eco-conscious consumption, a value-action gap persists; students frequently revert to low-cost fast fashion due to price sensitivity and convenience. Employing Freudian Theory as an exploratory framework, this undergraduate research analyzes the internal psychological conflict between the Id (driven by immediate gratification for cheap, trendy clothing) and the Superego (motivated by ethical responsibility). Furthermore, the study examines how "greenwashing" disrupts actual Green Purchase Intentions by eroding consumer trust, thereby reducing Green Premium Willingness. Ultimately, initial findings indicate that the willingness to pay for sustainable fashion extends beyond financial constraints - it is profoundly influenced by self-identity expression and the perceived authenticity of a brand's green marketing. This research provides critical foundational insights into the psychological barriers preventing young consumers from transitioning to sustainable alternatives.

Feed the Feed: Analyzing the Impact of User-Generated Content vs. Brand Imagery on Gen Z Dining Choices

Hillary Celine Hartono, Tunghai University

Natalia Aurielle Gozali, Tunghai University

Natalia Aurielle Gozali, Tunghai University

extracts like Citri Reticulatae Pericarpium and Magnoliae Officinalis Cortex for long-term gastrointestinal motility regulation. Furthermore, the incorporation of peppermint effectively mitigates the organoleptic barriers typical of TCM, enhancing consumer compliance. In conclusion, this formulation offers a safe, long-acting scientific alternative. Its development strongly aligns with the United Nations Sustainable Development Goal 3 (SDG 3) and ESG criteria, demonstrating substantial commercial potential in the field of sustainable health management.

The Influence of Electronic Word-of-Mouth on Hotel Selection: Evidence from Instagram and OTA Platforms

Stephanie Annabella, Tunghai University

Nadia Carolina Hartono Tee, Tunghai University

Jovianne Christensen Santosa, Tunghai University

Chelsea Gabriela Tunghai University

As social media platforms redefine the hospitality landscape, travelers increasingly distinguish between aesthetic inspiration and transactional reliability. This research investigates the shifting weight of social proof, noting that while Instagram serves as a powerful tool for brand awareness, the electronic word-of-mouth (eWOM) found on Online Travel Agency (OTA) platforms remains the authoritative driver of actual booking intentions. The study is framed through reference group theory, analyzing how distinct digital environments influence the decision-making process. Instagram functions as an aspirational reference group, providing value-expressive influence that appeals to a consumer's "ideal self." Conversely, OTAs act as the primary comparative reference group by providing informational influence. Through the aggregation of verified user data and statistical ratings, OTAs exert expert power that builds essential consumer trust. This trust is the critical mechanism for mitigating perceived risk, as travelers prioritize the "functional validation" of high-density peer reviews over curated visual content when making financial commitments. Furthermore, the objective nature of OTA ratings minimizes cognitive dissonance, ensuring that consumer expectations align with reality. Findings suggest that these reference groups dominate distinct stages of the consumer journey. While the "dreaming" phase is initiated by visual storytelling, the final conversion is dictated by the empirical evidence found on booking engines. The research concludes that traveler choice is highly segmented by trip purpose and the need for objective certainty. Ultimately, this contributes to marketing psychology by demonstrating that a professional segmented marketing strategy must utilize OTAs as the definitive "trust anchor" to successfully convert aspirational interest into confirmed behavioral action.

Outfit Reels, Hauls, and Stories: The Effect of Instagram Influencer Content on Gen Z Impulse Buying in Fast Fashion

Georgia Devanie Richella Wijaya, Tunghai University

Brisa Chen, Tunghai University

Shannon Audrey Tjandra Tunghai University

Janessa Marsey Heaven Tunghai University

This preliminary study investigates Gen Z impulse buying behavior in the fast fashion industry, focusing on Instagram influencer content such as outfit reels, hauls, and stories. Grounded in the Stimulus–Organism–Response (SOR) framework, Instagram influencer content is conceptualized as the stimulus, cognitive and emotional responses represent the organism, and impulse buying behavior forms the response. The Attitude Model (cognitive–affective–behavioral framework) is also integrated to explain how consumers first develop cognitive evaluations (e.g., trust and perceived value) and emotional reactions (e.g., excitement and desire), which subsequently shape impulsive purchase decisions. Findings indicate that Instagram Reels strongly trigger emotional arousal and Fear of Missing Out (FOMO), leading to unplanned purchases. Haul content enhances perceived credibility and social proof, increasing consumer trust and product desirability through influencer testimonials. In contrast, Instagram Stories, characterized by their ephemeral nature, generate lower cognitive involvement, but their frequent exposure contributes to habitual and subconscious purchasing tendencies over time. Social Influence Theory further explains that influencers function as opinion leaders who shape consumer attitudes, reinforce social conformity, and promote trend adoption among Gen Z. This research provides critical foundational insights into the psychological and social mechanisms through which Instagram influencer content drives Gen Z impulse buying behavior in fast fashion consumption.

Roots Vs. Routes: How Cultural Heritage and Reference groups shape food brand loyalty in Taiwan

Jeremy Hansel Wijaya, Tunghai University

Devohn Gerrard, Tunghai University

Jonny William Asquith, Tunghai University

Taiwan's culinary landscape is defined by a tension between cultural "Roots" and global "Routes." This research investigates the shifting determinants of brand loyalty, moving beyond quality to examining how cultural heritage and reference groups shape the

"Taiwanese" diner. Cultural “Roots” reflect consumers’ emotional attachment to traditional Taiwanese flavors and heritage brands, while social “Routes,” such as peer influence and global food trends, increasingly affect consumer preferences and loyalty.

“Roots” are defined through factors such as Values and Emotional Value, where nostalgic attachments anchored in Episodic Memory and traditional heritage. These elements foster a sense of continuity, often manifesting as Behavioral Loyalty passed down through family practices and cultural traditions. Conversely, “Routes” represent macro-environmental influences, specifically the Referent Power of Reference Groups such as social media content creators and peer “foodie” communities. These groups drive Observational Learning, redefining values around “aesthetic” and “Instagrammable” consumption. Drawing from consumer behavior, culture, memory, and social influence, this study examines how emotional attachment and digital communities interact in shaping brand loyalty among Taiwanese consumers.

Employing a Mixed-Methods approach, the research combines Descriptive Research via quantitative surveys to measure loyalty metrics with Interpretive Research through qualitative interviews to capture nostalgic narratives. The study further explores how Generational Subcultures moderate this balance. It analyzes whether younger consumers are more influenced by the social appeal of global brands or the familiarity and cultural value of traditional local food culture. Ultimately, this research provides insights into cultural identity, how it continues to shape brand loyalty in Taiwan.

Can Chatbots Make Up for Their Own Mistakes? Examining the Dual Effects of Warm Responses in AI Service

Eileen Yang, National Taipei University of Business

Chatbots have become a central part of modern customer service. However, service failures involving chatbots are inevitable. When these failures are not properly addressed, consumers are less likely to continue using the service, posing a real risk of customer loss for businesses. This study examines how warm chatbot responses influence consumer continuance intention in service recovery contexts. Drawing on the Computers as Social Actors (CASA) framework and Attribution Theory, a dual-pathway model is proposed. Warm responses are argued to operate through two competing mechanisms. On one hand, warmth can enhance social presence and generate positive emotions, which strengthens continuance intention. On the other hand, overly affective language may be seen as an attempt to manipulate or conceal the failure, triggering negative motive inferences and weakening recovery outcomes. Implicit Person Theory is introduced as a moderating variable. It captures how consumers with different mindsets, specifically incremental

versus entity theorists, interpret warm responses differently. Data are collected using a quasi-experimental design combined with a survey. Hypotheses are tested through structural equation modeling via SmartPLS. The findings aim to clarify the competing roles of warm responses in service recovery, fill theoretical gaps in human-chatbot interaction research, and provide practical guidance for businesses using conversational AI in customer-facing roles.

Approach and Avoidance Motivations in Paying for Airline Carbon-Offset Options

Jade Lotijar Alberttar, Tunghai University

Benjamin Hsieh, Tunghai University

Chris Chang, Tunghai University

Ethan Song, Tunghai University

The aviation industry faces increasing pressure to reduce carbon emissions and promote sustainable practices. This study examines the relationship between environmental awareness, climate action, and travelers' willingness to support Sustainable Aviation Fuel (SAF) initiatives within the context of green travel behavior. In particular, the research investigates whether guilt mitigation influences passengers' intentions to choose environmentally responsible airline options and pay for sustainability-related surcharges. A quantitative survey was conducted among airline passengers, and the collected data were analyzed using regression and structural equation modeling techniques. The findings indicate that environmental awareness positively affects support for SAF and green travel intentions, while guilt mitigation significantly moderates passengers' climate action behaviors. The study further reveals that travelers who perceive higher personal responsibility for carbon emissions are more likely to support sustainable aviation initiatives. These findings contribute to the growing literature on sustainable consumer behavior and provide practical implications for airlines seeking to promote SAF adoption and environmentally responsible travel choices.

When Green Claims Meet Reality : Expectation Disconfirmation in Sustainable Tourism

Allison Lin, Tunghai University

Marie Chang, Tunghai University

Green marketing has become an important strategy in the hospitality industry as consumers increasingly value sustainability and environmental responsibility. However, the growing use of green marketing has also raised concerns about greenwashing, which refers to misleading or exaggerated environmental claims. This study explores how eco-label trust and skepticism toward greenwashing influence consumers' booking intentions in the hotel industry.

Based on the Expectation–Disconfirmation Model, this poster examines how consumers form expectations through hotel sustainability claims and how negative disconfirmation occurs when actual hotel practices fail to meet those expectations. The poster further explores how misleading eco-labels reduce consumer trust and negatively influence hotel booking intentions.

The finding suggests that credible and transparent eco-labels may positively influence booking intention, while unclear or misleading environmental claims can increase consumer skepticism and reduce trust in hotel brands. Furthermore, negative disconfirmation may lead to dissatisfaction and lower purchase intention.
This study highlights the importance of authenticity and transparency in sustainable hotel marketing. The findings provide insights for hospitality marketers seeking to build long-term consumer trust while avoiding the negative effects of greenwashing.

Exploration of LCC and FSC in Different Generation

Anne Lin, Tunghai University

Anna Jiang, Tunghai University

Janice Wang, Tunghai University

Akari Sashihara, Tunghai University

This study explores the differences in attitudinal loyalty toward full-service carriers and low-cost carriers among Generation X, Y, and Z in Taiwan. The research analyzes how safety perception, service expectations, travel motivation, and digital interaction influence airline preferences across generations. Findings suggest that Gen X demonstrates stronger loyalty toward full-service airlines, while Gen Z shows greater psychological attachment to low-cost carriers due to digital convenience and perceived cost-performance value.

My Internship Experience at Valofresh

Johnny Sun, Tunghai University

Discuss the results of the internship at Valofresh.

TSMC and Taiwanese National Security: The Importance of the Semiconductor Industry and Economic Diversification to Taiwanese Sovereignty

Vincent Caminneci, Tunghai University

Taiwan's economy is dependent on the semiconductor industry. Nearly 40% of its exports are electronic integrated circuits. Most of the world's semiconductors come from Taiwan, and nearly all of the most advanced ones do as well. Taiwanese Semiconductor Manufacturing Corporation, or TSMC, dominates the global semiconductor market. TSMC and the semiconductor industry have served as vital economic shields for Taiwan as China has repeatedly threatened to conquer the island. An invasion would trigger a global economic depression and involve the United States directly in such a war, so China has little chance of actually doing it. However, Taiwan's overdependence on the semiconductor industry is very risky, and no company nor country stays on top forever. The United States, China, and other countries are continuously trying to outdo Taiwan, and based on their supply of resources and capital, they eventually can. Taiwan losing its place at the top of the semiconductor industry could endanger the island nation through economic instability and foreign hostility. The United States, which is currently moving toward isolationism and may already not be reliable in the case of war, would be less likely to defend it if it was less vital to its economy, and China would be emboldened upon seeing Taiwan weakened so significantly. Taiwan must work to keep its edge in the semiconductor industry, of course, but it is also important that it focuses on economic diversification. Industries that Taiwan could focus on more include renewable energy, medical technology, security, and tea. Expanding and diversifying trade is essential to protecting Taiwan from the threats of war and economic recession.

From Battery Technology to Market Design: A Comparison of BESS Revenue Mechanisms in Japan and Taiwan

Keisuke Fukushima, Tunghai University

Battery Energy Storage Systems (BESS) are becoming essential for integrating renewable energy into electricity systems. However, BESS should not be understood only as a battery technology. This project argues that the main challenge is market design: batteries can support grid stability, but they need electricity markets that clearly reward flexibility.

This study compares Japan and Taiwan, two electricity systems that share similar challenges. Both countries aim to expand renewable energy while maintaining stable power supply and reducing dependence on imported fossil fuels. As solar and wind power increase, electricity systems need more flexibility to manage unstable generation, peak demand, and grid balancing. BESS can provide these services by storing electricity when supply is high and discharging it when demand is high.

The key finding is that BESS investment depends not only on battery performance, but also on whether market mechanisms create reliable revenue. Japan has multiple market opportunities, including wholesale, balancing, and capacity-related mechanisms, but revenue uncertainty remains a concern. Taiwan is also developing flexibility markets, but long-term profitability is still unclear.

Therefore, this project concludes that Japan and Taiwan need clearer market mechanisms that value flexibility. Without stable revenue models, BESS may remain technically useful but financially difficult to scale.

Modern E-Commerce: Why is the experience for Chinese and American customers so different?

Trevor Crane, Tunghai University

Justin Anfita Superman, Tunghai University

Glenn Evant Harmawan, Tunghai University

Everyone uses some kind of e-Commerce platform in their daily lives to some degree, but with all globalizations, the ideas, values and experiences of online shoppers vary widely. But why is that? The differences between the two groups of e-Commerce platforms, the Chinese and American platforms. American platforms being Amazon and eBay, whereas the Chinese platforms are Shopee, Taobao, and Pinduoduo. Amazon has its own product lines and promotes its own products with its recommendations, whereas Taobao feels like an endless scroll and promotes live-streams and other media outside of its own. Pinduoduo, Shopee, Taobao and Amazon all promote tons of products on their home screen, but Amazon does not have an infinite number of products on its home screen. Unlike these two groups, Chinese and Americans both have access to Temu and Shein, but their access to it

is different due to shipping times. The difference stems from a mix of Chinese collectivism versus American Individualism, COVID and the economy of Chinese Countries (China & Taiwan) versus the American Economy. According to a poll we conducted within the International College at Tunghai University, everyone was using e-Commerce platforms for something specific, with only a small portion “falling into the algorithm” of shopping for multiple hours. Overall, the combination of Culture (Collectivism and Centralization), Economics, and even COVID all combine to make the differences between American and Chinese E-Commerce websites.

Why Nike's shoes aren't selling that well in Taiwan than other countries

Cliff Javier Santiago, Tunghai University

Clinsmann Francesco Leman, Tunghai University

In today's sportswear market, Nike is one of the world's most dominant and well trusted sportswear brands, however its performance in the Taiwan market remains constantly weaker than it is in the home market of the United States. As of 2025, Nike holds approximately 20% value share in Taiwan's sportswear market , a figure that is a fraction of America’s share. The poster we are going to create will investigate the structural and strategic factors behind its down trend in the Taiwan market.

We examined three core issues. The first one is about Taiwan, as Taiwan has a smaller population and market size, which may limit its overall sales. Secondly, Taiwan has an active marathon community. Brands like HOKA, Adidas and Oncloud have gained significant market traction in Taiwan's running community, building a strong reputation for comfort and design, creating a strong competitor for Nike in the running shoe market, directly attacking Nike's core performance segment. Lastly, Nike's premium pricing, which may be highly effective in the U.S, but in Taiwan where there are plenty of students and middle class consumers. It may seem quite expensive, where Taiwanese people often emphasis on International brands and value for money items, compared with the American consumers who are generally more accepting of premium pricing.

Competitors like Adidas, Puma, and New Balance have taken a different route on consumer behavior, such as Adidas going on a more affordable lifestyle and fashionable sportswear. The findings suggest that Nike could strengthen in a specific consumer market where there are less consumers such as the newest release of ‘Nike Mind' targeting a more health focused adults, more localized marketing and pricing strategies to create better consumer expectations. To help Nike in the Taiwanese market in the long run.

From Taiwan to the World: How Shihlin Adapted Globally While Keeping Its Identity Abroad

Clarissa Stella Tjandra, Tunghai University

Natasya Lavinda, Tunghai University

Tunghai University

Taiwanese street food has become popular around the world, and Shihlin Taiwan Street Snacks is a strong example of how a local food business can successfully expand beyond its home country. Inspired from Taiwan's famous night market culture, Shihlin has transformed traditional street food into a global franchise while keeping the unique flavors, products, and brand image that reflect its Taiwanese roots. This project explores how Shihlin adapted to different international markets while maintaining its identity abroad, allowing the brand to appeal to a wide range of consumers without losing its cultural authenticity.

As Shihlin expanded globally, it adjusted its business strategies to meet local preferences and consumer behaviors in different countries. This project also analyzes the role of social media in creating strategies to attract international customers and support international growth. Indonesia serves as a useful case study, where Shihlin has become popular among young consumers because of its compatibility with local snacking habits, shopping mall culture, and growing interest in South-East Asian trends. By examining Shihlin's success, this project highlights how food can be used not only as a business opportunity but also as a way to share culture across different countries.

Strong and weakness open a business in Taiwan and Indonesia

Anzagawa Raymond Tjia, Tunghai University

Samuel Christian Hosea, Tunghai University

Entrepreneurship is not only an opportunity to realize one's dreams, but also an important path through which many people pursue financial freedom and personal growth. In Asia, both Taiwan and Indonesia are promising markets for entrepreneurship. However, the business environment, consumer habits, and operating conditions differ significantly between the two countries, so entrepreneurs need to carefully evaluate their options when deciding where to establish a business.

Taiwan's greatest advantage lies in its stable and mature business environment. Its well-developed transportation system, convenient digital payment infrastructure, efficient logistics services, and transparent legal framework all help businesses operate more

smoothly. In addition, Taiwanese consumers generally place a high value on product quality and customer experience. As a result, businesses that provide high-quality products and excellent service can more easily build brand loyalty. However, Taiwan's population is relatively small, which limits the potential for market expansion. Furthermore, high rents, labor costs, and raw material prices can pose significant challenges for new entrepreneurs.

By contrast, Indonesia has a population of more than 200 million people, a large market, and a high proportion of young consumers, giving it considerable growth potential. As the economy continues to develop and the middle class expands, consumer purchasing power is steadily increasing, creating many opportunities in sectors such as food and beverage, retail, and services. In addition, labor costs in Indonesia are relatively low, which can help reduce operating expenses. Nevertheless, infrastructure and logistics systems in some regions still require improvement, and administrative procedures can be more cumbersome, meaning that businesses may need to invest additional time and resources in management.

Overall, Taiwan is well suited to entrepreneurs who wish to build high-quality brands and pursue stable, long-term growth, whereas Indonesia is more attractive to businesses seeking to enter a large market and achieve rapid expansion. Regardless of which country is chosen, the key to entrepreneurial success remains the same: understanding market demand, delivering value to customers, and continuously innovating and improving business operations. These factors often play a greater role than the market itself in determining a company's future development and competitiveness.

The Success of YouBike in Taiwan

Yie Thing Vanessa, Tunghai University

Narizhna Sofiia , Tunghai University

YouBike is Taiwan's most popular public bicycle-sharing system and has become an important part of daily transportation. Since its launch in 2009, YouBike has attracted millions of users by providing an affordable, convenient, and environmentally friendly way to travel. Its success can be attributed to its extensive network of stations, easy rental process, integration with public transportation, and strong government support. YouBike helps reduce traffic congestion, lower carbon emissions, and promote healthy lifestyles. This poster explores the key factors behind YouBike's success and its positive impact on transportation and sustainable urban development in Taiwan.

One important reason for YouBike's success is its connection with public transportation. Many YouBike stations are located near MRT stations, bus stops, and train stations. This makes it easy for people to ride a bike before or after taking public transportation. As a

result, people can travel more easily and reach places that are not close to public transportation stations. This also gives people another transportation choice for short trips. Because of this convenience, more people choose to use YouBike in their daily lives. This poster discusses how the connection between YouBike and public transportation has helped make YouBike successful in Taiwan and why it has become a popular transportation option for many people.

Geoeconomic Crossfire: Evaluating the Impact of the U.S.-China Trade War on Japanese Chemical Exports

Han Sugihara Willingham, Tunghai University

This study examines the structural vulnerabilities of the East Asian supply chain by analyzing how the ongoing U.S.-China trade war impacts the Japanese chemical industry. Japan's chemical sector provides essential advanced materials to regional electronics, semiconductors, and automotive manufacturers. This details how the Washington-Beijing geopolitical conflict and tariffs collateralize neutral third-party exporters throughout Asia.

This analysis focuses on two primary market disruptions caused by this trade dispute. First, it evaluates the indirect export drop that occurs when U.S. tariffs reduce American consumer demand for Chinese-assembled consumer technology. This downturn subsequently lowers Chinese factory demand for specialized, high-margin Japanese chemical inputs, such as advanced photopolymers, fluorinated polyimides, and silicon wafer substrates. Second, the study investigates the regional market glut created when Chinese manufacturing plants, blocked from lucrative American markets, redirect excess commodity plastics into neighboring East Asian markets. This massive influx of supply depresses regional price points and heavily compresses the profit margins of Japanese multinational chemical enterprises.

Ultimately, this maps the compounding, multi-layers costs of economic decoupling along the global value chain. The finding highlight how regional manufacturing hubs, particularly Taiwan, are becoming increasingly vital as Japanese chemical exporters seek to proactively de-risk their operations, diversify their regional supply networks, and establish direct, tariff-resilient trade loops. By identifying these shifting trade patterns, the study offers critical insights into the future of cross-border corporate strategies and industrial resilience within the volatile East Asian economic order.

Cross-Cultural Challenges in TikTok Marketing: A Comparison of Taiwan, Thailand, and Indonesia

Nathania Nyoko, Tunghai University

Boonsita Sabchiaochan, Tunghai University

Our project is going to cover the challenges faced by companies in countries like Taiwan, Thailand and Indonesia in using TikTok for marketing sales. This project compares key cultural factors that influence TikTok marketing, like language use, humor, and consumer behavior. Through the comparison of the three countries, we can identify and highlight the importance of cultural adaptation in international marketing strategies. Our poster focuses on how to increase effectiveness in TikTok marketing where businesses are required to further understand local cultures and customize their content to meet the expectations of different audiences. Our goal is to provide insights for companies seeking to improve cross-cultural communication and marketing effectiveness in Asian markets. As digital marketing continues to expand across Asia, understanding cultural differences has become increasingly important for businesses seeking to build stronger connections with consumers and improve company brands in international markets.

AI Automation-Induced Layoffs: Conflict Management Between Corporate Efficiency and Labor Employment

Eileen Zheng, Tunghai University

Han Sugihara Willingham, Tunghai University

With the advancement of technology, artificial intelligence has become an important tool for corporate transformation. Many companies use AI automation to improve efficiency, reduce costs, and strengthen competitiveness. However, when AI is used to replace human workers, it may create conflict between corporate efficiency and labor employment. Klarna, a Swedish financial technology company, is one example. After introducing AI tools, especially in customer service, the company reduced its workforce and raised concerns about job security and the future role of human workers.

This conflict involves key actors such as company leaders, affected employees, labor unions, government agencies, and AI technology providers. The relationship between employers and employees may become weaker because layoffs damage trust. The main issue is the tension between business efficiency and workers' need for job security. Companies may see AI as progress and innovation, while workers may see it as a threat. Therefore, the conflict can be analyzed through different dimensions, including parties,

relationship, issues, perceptions, interests, options, alternatives, standards, resolution, and communication.

The conflict can also be examined from three levels. The direct conflict is layoffs and workers losing their jobs. The secondary level includes companies' cost-saving decisions, digital transformation strategies, and market pressure to adopt AI. The hidden level involves deeper concerns, such as fear of being replaced by technology, lack of transparent communication, unequal distribution of AI benefits, and weak support systems for workers. A more balanced solution requires fair communication, retraining, compensation, and human-AI collaboration, so that AI transformation can improve efficiency while also protecting workers' rights and dignity.

The Bosman Ruling

Nathaniel Bertram Chandra, Tunghai University

Jonathan Jiang, Tunghai University

This poster demonstrates the 1995 Bosman Ruling as a case study in conflict management, analyzing the transition from a regional labor dispute to a shift in professional football. Before 1995, Football clubs were under no conditional offer to let players leave at the end of their contracts without a transfer fee. A transfer fee is the financial compensation which is paid by a club to acquire a player who is still playing for another team or club. The primary parties that get involved are Jean-Marc Bosman and RCF liege, the secondary parties would be the Belgian FA, CAS and UEFA. With other players, FIFA, and the EU having affected in this as well. Bosman's contract with RFC Liege has expired, and he wants to move to Dunkirk. However, RFC Liege asked for a tremendous transfer fee which Dunkirk is going to have either accept or withdraw the offer. The Belgian club then cut Bosman's wages by 75% and refused to sell him. After that, Bosman took the club, the Belgian FA and UEFA to court; eventually, the Treaty of the European Union will be a key part in the court ruling as there's a rule that restricting the free movement of workers is a violation of the treaty. This ruling significantly changed the world of football, shifting the power from clubs to players, and giving second chances for players to get a fresh start and progress their careers.

Quality Over Quantity: Din Tai Fung's Controlled Expansion Strategy as a Long-Term Business Model

Melinda Cahya Dhea Rizti, Tunghai University

This study examines Din Tai Fung's strategy for maintaining product quality and maximizing revenue per outlet by avoiding excessive expansion of its stores. Din Tai Fung was founded in Taipei in 1958, and although it has been in operation for more than five decades, Din Tai Fung consistently opens only 3–4 new outlets per year, which is a deliberately conservative and planned growth approach. Controlled expansion ensures strict quality control, brand exclusivity sustains high consumer demand, and revenue per location remains industry-leading. However, this approach results in slower growth regarding market share. Thus, these findings suggest that while market expansion may be high, it does not necessarily guarantee that brand value and financial sustainability will continue to grow in the long term. This Taiwanese model provides evidence of a valuable approach for premium F&B brands seeking sustainable global expansion.

The Relationship Between Smartphone Addiction and Academic Performance

Sierra Chen, Tunghai University

Violin Wang, Tunghai University

In today's rapidly developing era, smartphones are undeniably becoming an inseparable part of daily life. People around the world use smartphones daily either for texting, studying, finding information, entertainment, and gaming. While they offer many benefits and make communication easier, using them too much has caused worries about how they affect students' school performance. A study in the Global Journal of Health Science by John Damiao and Catherine Cavaliere, called "The Relationship between Smartphone Addiction and Academic Performance in College Students," found that smartphone addiction negatively affects students' GPA and academic results. Few studies have looked at how too much smartphone use, especially apps like TikTok affects students' attention in class. Even during lectures, individuals focus more on short videos than on the lesson itself, which shows that smartphones can lower focus and productivity for university students. (Liao et al., 2026) This poster looks at the connection between smartphone addiction and academic performance in university students. Not only does it focus on the connections between smartphone addiction and academic performance, but it also studies how screen time and relying on smartphones affect students' focus, study habits, and class participation. The research used online surveys with students from different fields. Results show that too much smartphone use is linked to lower concentration and trouble managing study time, which we could see in today's real life world. (Liu et al., 2024) Many students said that entertainment apps and social media often distract them during studying and lectures. (Sánchez-Fernández & Borda-Mas, 2022) However, some students also said that smartphones help with schoolwork when used for learning and finding information online. (Amez et al., 2021, pp. 584-608)

The Role of ESG Investing in Corporate Financial Performance and Reputation

Samuel Christian Hosea, Tunghai University

Darren Wilbert Himawan, Tunghai University

Anzagawa Raymond Tjia, Tunghai University

James Handinata Prayogo, Tunghai University

This research investigates the strategic role of Environmental, Social, and Governance (ESG) investing in influencing Corporate Financial Performance (CFP) and market valuation. As non-financial performance metrics face increasing institutional scrutiny, understanding how sustainability integration affects firm outcomes remains an important issue for contemporary business strategy. Utilizing a multi-year panel dataset spanning 2020, 2021, 2022, 2024, and 2025, this study evaluates the relationship between ESG performance and two dimensions of corporate performance: operational efficiency, measured by Return on Assets (ROA), and market valuation, represented by Tobin's Q.

The empirical framework incorporates firm-specific and systematic risk controls, including stock return volatility and beta, as well as year fixed effects. The results provide mixed evidence regarding the financial implications of ESG activity. ESG performance exhibits no statistically significant relationship with ROA, suggesting that sustainability initiatives neither improve nor impair short-term operating efficiency. However, ESG performance is negatively associated with Tobin's Q, indicating that firms with stronger ESG profiles tend to receive lower market valuations during the period under study.

These findings suggest that investors may view ESG expenditures as imposing costs that outweigh perceived short-term financial benefits, leading to a market discount for highly rated ESG firms. At the same time, the results should be interpreted cautiously. The analysis focuses on relatively short-term financial outcomes and does not capture potential long-term benefits of ESG investment, such as enhanced reputation, stakeholder trust, risk mitigation, or future competitive advantages. Consequently, the findings do not imply that ESG initiatives destroy firm value in the long run, but rather that the market may not fully reward such investments within the time horizon examined in this study.

China–Australia Trade Conflict During COVID-19: A Conflict Analysis

Yu-Ching Lin, Tunghai University

This poster examines the trade conflict between China and Australia during the COVID-19 pandemic using the Ten Elements Model. The conflict began in 2020 when Australia called for an independent investigation into the origins of COVID-19. China viewed this as politically motivated and subsequently imposed trade restrictions on several Australian products, including barley, wine, coal, beef, and lobster.

The analysis will focus on the parties involved, their relationship, key issues, perceptions, positions and interests, and communication challenges. It will also explore the options and alternatives available to both sides, the role of international trade standards such as WTO rules, and the outcomes of the dispute.

The purpose of this study is to understand how political disagreements can affect economic relations and international trade. Through this case, the poster will discuss whether the global economy is politically neutral and how trade can be used as both a tool of cooperation and political pressure.

The "Bubble Economy": How Bubble Tea is shaping Taiwan's economy through trade

Isadora Page, University of Puget Sound

This poster takes a sip into Taiwan's Bubble Tea industry. Since the invention of Bubble Tea (right here in Taichung!), its popularity has steadily risen worldwide, particularly in the United States. With the growing popularity of this drink has come an increase in the export of tea, tapioca pearls, and other essential bubble tea ingredients from Taiwan. What many call the "Boba Craze" has helped Taiwan achieve the most dominant position in the bubble tea supply chain, making its tea and bubble tea industry the world's leading exporter and significantly boosting Taiwan's economy in the process.

Natural & Environmental Sciences Poster Abstracts

High School

Exploring the Environmental Impacts of Urban Green Corridors: Insights from Taichung Green Railway and High Line Park

Yu Han Tseng, Hsinchu County Liuo-Jia Senior High School

Modern urban planning is mostly focused on greening, and the frequency of street trees and other green plants on the streets is gradually increasing. Through the Taichung Green Railway in my own living area and the famous High Line Park in New York, I was inspired to think about the impact of urban green belts on the environment. So I created this explanatory poster by referring to online literature.

Principal Component Analysis (PCA) of TCGA Breast Cancer RNA-seq Data Reveals Molecular Subtype Separation

Elle Chen, International Bilingual School at Tainan Science Park

Breast cancer is a heterogeneous disease made up of molecular subtypes that differ in gene expression, clinical behavior, and treatment response. Because RNA-seq data measure thousands of genes at once, it can be difficult to identify meaningful patterns directly from the full dataset. Principal component analysis, or PCA, is a dimensionality reduction method that simplifies high-dimensional data while preserving major sources of variation.

This project will use publicly available TCGA-BRCA RNA-seq data from UCSC Xena to investigate whether PCA can reveal molecular subtype separation in breast cancer. Samples will be grouped using known subtype labels, such as Luminal A, Luminal B, HER2-enriched, and Basal-like. After filtering low-expression genes and normalizing the expression matrix, PCA will be applied to reduce the data into principal components. The resulting plots will be colored by subtype to evaluate whether samples with similar molecular features cluster together. Subtype separation may also be assessed using silhouette score or clustering agreement.

I hypothesize that PCA will show partial separation of breast cancer subtypes, especially between biologically distinct groups such as Basal-like and Luminal tumors. This project aims to demonstrate how computational analysis can transform complex genomic data into interpretable visual patterns. By connecting gene expression differences to molecular subtype structure, this study supports the broader goal of using bioinformatics to improve cancer classification and precision medicine research.

Defense Strategies for the Quantum Era (Q-Day): Lightweight Performance Evaluation of Post-Quantum Cryptography

Chih-Chuan Wang, National Tainan Second Senior High School

Po Cheng Lin, The Affiliated Chu Pei Senior High School of National Yang Ming Chiao Tung University

Wei-Bo Huang, National Tainan Second Senior High School

Hung-Yueh Lin, Pu-Men Senior High School

Chih-Chuan Wang, National Tainan Second Senior High School, Po Cheng Lin, The Affiliated Chu Pei Senior High School of National Yang Ming Chiao Tung University, Wei-Bo Huang, National Tainan Second Senior High School & Hung-Yueh Lin, Pu-Men Senior High School

As quantum computing advances, current encryption standards such as RSA may become vulnerable, threatening modern financial and communication systems. This project compares traditional encryption (RSA-2048) with post-quantum cryptography algorithms such as CRYSTALS-Kyber using Python or C# scripts. The experiment measures key generation time, encryption/decryption speed, and memory usage under different input sizes. The poster presents the Q-Day threat, experimental performance comparisons, and an evaluation of PQC feasibility in resource-constrained environments.

Development of a Campus Carbon-Tracking Dashboard: Bridging Data Visualization and Sustainable Awareness

Erh-Wen Chang, National Hsin Hua Senior High School

Chih Heng Chao, National Chutung Senior High School

Shau-Yi Chen, National Nanke International Experimental School

While most universities collect energy data, it is rarely presented in a way that students can understand or act upon. This project presents EcoVisual, a self-developed dashboard prototype aimed at making campus sustainability "visible."
Unlike static reports, our system focuses on real-time data transformation. We use Python (Pandas) to process raw energy logs and the Streamlit framework to build an interactive frontend. The core feature is a custom-coded conversion algorithm that translates standard kWh and EUI (Energy Use Intensity) into more relatable metrics, such as "trees planted" or "equivalent CO_2 reduction."
Through this interactive interface, international students can directly monitor the environmental footprint of specific campus buildings. By providing this transparency, the project demonstrates how simple data tools can drive behavioral change, turning abstract climate goals into tangible campus-wide participation.

Analysis of Viscous Effects on Spherical Motion under Wall Effects Using Power Law and Exponential Function Models-from Faxen law to Bessel function

Lu Yu Cheng, Taipei Municipal Yangming High School

Zi Yu Ou, Taipei Municipal Yangming High School

Our research project used Falling Ball Method to determine the viscosity coefficient based on Stokes' law. However, due to wall effects, the calculated viscosity values showed systematic overestimation. Therefore, Faxén's correction was applied to reduce the error caused by the finite tube diameter. Additionally, using NumPy, the relationship between the tube diameter-to-sphere diameter ratio and viscosity was fitted with a power-law model, achieving an R^2 value of 0.995. In addition to the power-law fitting, we found that an exponential function provided an even better fit, with an R^2 value as high as 0.9979.

We speculate that this result originates from Faxén's original derivation, which used the method of reflections to approximate a power-series relationship, producing a structure similar to a Taylor expansion. However, the correct treatment should also consider the cylindrical geometry of the tube. Therefore, starting from Stokes' law and applying cylindrical boundary conditions through the cylindrical solutions of the Bessel equation, this study attempts to explain why an exponential function better matches the experimental data under cylindrical boundary conditions.

Hybrid Chitin-Alginate Bioplastic: A Sustainable and Biodegradable Alternative for Packaging

Deven Ken Yohandra, Tunghai University

Plastic waste mismanagement has been one of the prevalent issues since the 20th century up until now. The aim of this study is to produce an efficient alternative to petroleum based plastic made from a composite of chitosan and alginate that is anti-microbial, able to biodegrade, and has comparable properties to conventional plastic products. Chitosan is chosen because of its abundance in nature, second only to cellulose. It also has low toxicity, is biocompatible, anti-microbial, and has excellent properties that make it a promising choice for a plastic alternative. Alginate is also chosen because of its non-toxicity, biodegradability, biocompatibility and unique gel-forming characteristics, and it is soluble in water, making it easy to process. The composite of these polysaccharides has been observed in hydrogels and hydrosols to have a complementary effect. The sodium alginate addition to the composite improves the flexibility, while Chitosan improves its thermal resistance. Simultaneously, the interaction between these two polymers positively affects its mechanical strength. The polymeric structure of chitosan-alginate was the result of ion interactions.

When Human Tire Reefs Failed, Can Bacteria Restore the Ocean? — A Case Study of Sporosarcina Pasteurii

Pei-Chen Wei, National University of Kaohsiung

Microbially induced calcium carbonate precipitation (MICP) research has traditionally focused on homogeneous sandy soils. However, recent studies have suggested that this technology can also be applied to marine solidification and structural restoration.
In 1972, the Osborne Reef tire reef project in the United States caused large-scale marine pollution. Approximately 2 million discarded tires were dumped into the ocean, with the original intention of creating an artificial reef. However, the chemical composition and structural instability of tires were overlooked. Instead of forming a stable habitat, the tires

damaged existing coral reefs through physical impact and continuously released heavy metals into the marine environment. More than 50 years have passed since the incident, yet over 500,000 tires are still estimated to remain underwater.

This study focuses on Sporosarcina pasteurii, a well-known bacterial species widely used in MICP research, as the primary research subject. The aim is to explore its potential application in restoring marine damage caused by the Osborne Reef tire reef incident. While ongoing efforts continue to remove the remaining tires, marine ecosystem restoration is equally important.

Sporosarcina pasteurii secretes large amounts of urease, which efficiently catalyzes urea in the environment, producing carbonate and ammonium ions. This process increases the environmental pH and promotes calcium carbonate precipitation, a material composition similar to that of coral reefs. Compared to conventional concrete commonly used for crack repair, Sporosarcina pasteurii based mineralization has significantly lower carbon emissions and higher biocompatibility. Therefore, this study proposes its potential as a sustainable marine restoration strategy.

The Impact of Nutrient Imbalance on Dinoflagellate Outbreaks in Closed Marine Aquariums A Case Study

Benson Wu, Tunghai University

Dinoflagellate outbreaks are one of the most challenging problems in reef aquariums. Unlike common algae, dinoflagellates can adapt to unstable environments and survive under nutrient-limited conditions.

Recent studies show that nutrient imbalance (low N:P ratio), rather than high nutrient levels, is a key factor driving these outbreaks.

In natural reefs, nutrients remain low but balanced. maintaining microbial stability. However, in closed aquarium systems, nutrient fluctuations caused by feeding and limited filtration can disrupt this balance and favor opportunistic organisms such as dinoflagellates.

Evaluating Retrofitting Strategies and Certification Pathways for Private Buildings in Taiwan—A Case Study of Tunghai University's PG Building

Nadia Chang, Tunghai University

To achieve Taiwan's net-zero 2050 goals, retrofitting existing buildings remains overlooked. This study addresses this gap by analyzing a case study of Tunghai University's PG Building, evaluating EEWH-RN (Existing Building Renovation) feasibility under subtropical conditions. Using institutional data, on-site observations, and literature review, an assessment is made of existing energy/water baselines, EEWH prerequisites, and retrofit options like reflective paints, dual-flush toilets and aerators. Findings confirm the PG Building's feasibility for retrofit certification with mandatory Daily Energy Conservation and Water Conservation prerequisites (>20% reduction) plus CO_2 Reduction (structural reuse >50%) and Waste Reduction Indicator (achieving standard values of PIe=0.9 and PIa = 0.6). This framework prioritizes low-disruption, scalable strategies with practical alternatives, accelerating private retrofitting adoption.

Comparative Study of ESG Disclosure and Environmental Practices in Sustainability Reports of Four Technology Companies: Apple, NVIDIA, AMD, and Intel

Jasmine Qiu, Tunghai University

This project aims to compare and analyze the sustainability reports of four leading global technology companies: Apple, Nvidia, AMD, and Intel. The research focuses on the importance of these sustainability reports, their disclosure levels, ESG performance, key focus areas, and each company’s specific sustainability initiatives.

Public disclosure through sustainability reporting enhances transparency, facilitates external stakeholder oversight, and reflects the companies’ actual efforts and achievements in environmental, social, and governance (ESG) aspects.

The motivation for this project is to observe, through detailed analysis of the reports, the depth of attention and proactive engagement of these companies regarding environmental issues such as carbon neutrality, energy transition, and supply chain management. This project further explores how this industry leaders leverage ESG strategies to respond to the global sustainability movement and shape industry standards.

For example, Apple commits to achieving carbon neutrality across its entire value chain by 2030, prioritizing renewable energy and material recycling; Nvidia focuses on energy efficiency in data centers and aims for 100% renewable electricity; AMD emphasizes improving energy efficiency and reducing supply chain carbon emissions; Intel highlights net-zero emissions, water conservation, and waste reduction.

This comparative analysis is expected to clarify trends in corporate sustainability reporting and provide valuable references for promoting ESG practices in the technology industry.

Quantum Dots in Biomedicine: Current Advances, Clinical Challenges, and Future Directions

Maggie Su, Tunghai University

Quantum dots (QDs) have emerged as highly promising materials among inorganic nanomaterials due to their unique properties, such as high photostability and tunable emission spectra. Unlike other traditional organic fluorophores, QDs allow for wide surface modification to improve stability in complex biological fluids because of their high surface-to-volume ratio. These features make QDs revolutionary tools in the biomedical field, particularly for bioimaging, drug delivery, and biosensing.

Recently, research has shifted from traditional heavy metal QDs toward more biocompatible and sustainable options, including carbon-based QDs and non-toxic semiconductor variants. This transition is driven by the urgent need to reduce inherent toxicity and environmental risks, offering a safer profile for long-term monitoring within living systems.

However, several challenges still need to be addressed. Issues like long-term toxicity, metabolic pathways in the body, and the difficulty of large-scale production still limit their clinical use. This review summarizes the latest progress in QD synthesis and surface modification for biological applications. We also evaluate the major safety concerns and bottlenecks that persist in the field. Finally, we discover the future trends, focusing on multifunctional "theranostic" platforms that combine diagnosis and treatment, aiming to provide a clear perspective for the next generation of precision nanomedicine.

Smart, pH-Sensitive Tapioca Starch Bioplastics Reinforced with Eggshell Powder and Calcium Carbonate for Sustainable Food Packaging

Kay Lin, Tunghai University

Tapioca starch-based films incorporating natural colorimetric indicators offer a sustainable route toward intelligent food packaging by replacing petroleum-derived plastics with biodegradable materials and reducing food waste through freshness monitoring. In this study, pH-responsive bioplastic films were prepared from tapioca starch and butterfly pea flower extract, with eggshell powder (ESP) derived from household food waste and commercial calcium carbonate ($CaCO_3$) used as inorganic fillers to modify film structure and functionality. The films were cast under acidic conditions (pH 3.0–3.5) and evaluated in terms of drying behavior, visual morphology, and color response during the spoilage of chicken breast stored at room temperature for up to 4 days. All formulations

initially exhibited a deep blue color and showed a progressive shift toward lighter blue–green hues as storage time increased, confirming visible sensitivity to alkaline volatile compounds released during meat decomposition and demonstrating real-time freshness indication at the package surface. Incorporation of ESP and $CaCO_3$ reduced film transparency and altered surface texture relative to the control, with ESP films appearing more granular and $CaCO_3$ films smoother and slightly lighter, while maintaining the pH-responsive colorimetric function. By combining waste-derived fillers, starch from renewable resources, and an edible plant-based indicator, this student project illustrates a simple, low-cost approach to smart and more sustainable packaging films that can support circular-economy goals and help consumers judge poultry freshness more accurately, thereby potentially mitigating avoidable food waste.

Size-Controlled Cu_2O Nanocubes via NaOH-Assisted Scalable Synthesis for Efficient CO_2 Electroreduction

Samuel Liu, Tunghai University

Cuprous oxide (Cu_2O) nanocubes have emerged as promising catalysts for the electrochemical CO_2 reduction reaction (CO_2RR) due to their facet-dependent activity and selectivity. However, scalable synthesis methods that maintain precise morphological control and high reproducibility remain limited. In this study, we report a facile and scalable wet-chemical route for the synthesis of uniform Cu_2O nanocubes using sodium hydroxide (NaOH) as a key morphology-directing and pH-controlling agent. By systematically tuning reaction parameters—including NaOH concentration, precursor ratio, reduction kinetics, and temperature—we achieve well-defined nanocubes with controlled edge lengths and narrow size distributions. The synthesis protocol is further extended to larger batch volumes, demonstrating excellent scalability without compromising structural uniformity or phase purity. Comprehensive characterization via transmission electron microscopy (TEM), and High resolution transmission electron microscopy (HRTEM) confirms the formation of highly crystalline, phase-pure Cu_2O nanocubes with dominant {100} facets. Electrochemical evaluation reveals that the as-synthesized nanocubes exhibit enhanced catalytic performance toward CO_2RR, with improved selectivity for carbon-rich products and suppressed hydrogen evolution, attributed to the exposed cubic facets and optimized surface structure. This work provides a practical and scalable strategy for producing Cu_2O nanocubes and highlights their potential for efficient and selective CO_2 electroreduction.

Biocompatible Hydrogel based on alginate, bentonite and carbonated water for wound dressing application

Nathan Cahyadi, Tunghai University

Hydrogels are widely used as wound dressings due to their high-water retention, biocompatibility and the ability to absorb wound exudates. Excessive adhesion to skin can lead to wound expansion when hydrogels swell and cause tissue damage. This research focuses on the development of low-adhesion, low-swelling hydrogel dressing using alginate, calcium carbonate, carbonated water and bentonite as a reinforcing agent. Upon the addition of carbonated water, the slightly acidic environment facilitates the release of Ca^{2+} ions from $CaCO_3$, allowing rapid crosslinking of alginate to form a hydrogel network. Additionally, CO_2 generated during this process would diffuse out to the atmosphere, minimizing acidification and allow the hydrogel to reach a pH suitable for wound dressing. Bentonite is incorporated to enhance the mechanical and structural strength of hydrogel without compromising swelling behavior. Different $CaCO_3$ concentrations were explored to evaluate their effects on gelation rate and network formation. Preliminary observations indicate that the incorporate of bentonite improves the integrity of the hydrogel while maintaining biocompatibility, with no evidence of Cyanotoxic effects. The hydrogel in this research demonstrates a favorable pH environment, integrity and structural strength as an effective wound dressing material. This study highlights the possibility of using alginate and bentonite in a gas – generating system to produce a functional, biocompatible for biomedical applications.

Fast Fashion Consumption and Environmental Awareness Among Young Consumers: A Regional Study

Alexander Yang, Tunghai University

Fast fashion has become increasingly popular due to its affordability, accessibility, and ability to quickly follow current trends. However, the rapid production and consumption of clothing have also created significant environmental concerns, including textile waste, pollution, and increased carbon emissions. This study investigates public awareness of the environmental impacts of fast fashion and examines consumer purchasing behaviors through a questionnaire survey.

A total of 55 responses were collected, primarily from young adults aged 18–30. The results indicate that most participants are familiar with the concept of fast fashion and regularly purchase clothing, typically on a monthly basis or every few months. Although a majority of respondents acknowledged that fast fashion negatively affects the environment, many

reported that they would continue purchasing fast fashion products in the future or were uncertain about changing their shopping habits.
The findings reveal a gap between environmental awareness and actual consumer behavior. Factors such as affordability, convenience, and accessibility continue to influence purchasing decisions despite growing sustainability concerns. This study suggests that reducing the environmental impact of fast fashion will require not only greater public awareness, but also more affordable sustainable alternatives and stronger encouragement toward responsible consumer behavior.

Bridging Scarcity and Sustainability: Copper and Cobalt Recovery Strategies in the Semiconductor Industry

Stefanie Yang, Tunghai University

Copper and cobalt are indispensable for many modern technological advancements due to their unique properties, such as transmission, power system, semiconductor and various clean energy technologies. Both metals are facing increasing global demand, supply chain vulnerability, and impending shortage. In semiconductor manufacturing, copper and cobalt are widely used in processes, such as chemical-mechanical planarization, wet etch, and electroplating, resulting in the generation of chemically complex, metal laden wastewater. Treatment for wastewater to meet stringent discharge standards is essential to protect environmental and public health. Conventional treatment strategies, primarily driven by compliance, follows a linear economy model, treating valuable metals as pollutants for disposal rather as resource for recovery. This approach is increasingly regarded as unsustainable, given the critical need to conserve scarce resource and minimize waste. This review provides comparative assessment of copper and cobalt recovery technologies, and their environmental and economic benefits. By examining innovative recovery pathways, this review highlights how transition from pollutant removal to resource recovery can advance sustainability and enhance resilience of the semiconductor industry.

Production of Glucooligosaccharide Oxidase (GOOX) Using Pichia pastoris and Its Applications in Sustainability

Zhaoxi Zeng, Tunghai University

Glucooligosaccharide oxidase (GOOX) is an emerging biocatalyst of interest in sustainable biotechnology due to its ability to oxidize oligosaccharides while generating hydrogen peroxide, a versatile and environmentally benign oxidizing agent. As industries seek to transition from conventional chemical processes to greener alternatives, this study aims to investigate the heterologous production of GOOX using Pichia pastoris and to evaluate its potential applications in biomass valorization. The gene encoding GOOX was expressed in Pichia pastoris, a well-established eukaryotic expression system known for high protein yield and post-translational modification capability. Recombinant strains were cultivated under controlled conditions, and the secreted enzyme was assessed for its activity and stability. The results indicate that Pichia pastoris can efficiently produce active GOOX with characteristics suitable for industrial applications. Notably, the enzyme demonstrates potential in biomass valorization by facilitating the modification and conversion of carbohydrate-rich substrates derived from agricultural residues, thereby enhancing their value and usability. In addition, its function as a biocatalyst supports environmentally friendly oxidation processes, reducing reliance on harsh chemicals and energy-intensive methods. These properties highlight its relevance within the framework of green chemistry and sustainable biotechnological practices. In conclusion, the successful expression of GOOX in Pichia pastoris and its functional performance underscore its promise as a versatile biocatalyst, particularly in advancing sustainable biomass utilization and contributing to the development of greener industrial processes.

Power-to-Gas: Converting Excess Renewable Energy into Green Hydrogen

Truong Phuc Vinh, National Sun Yat-Sen University

Willy Aelredus Irianto, National Sun Yat-Sen University

High penetration of solar photovoltaic (PV) and wind generation is essential for the clean energy transition, but their variable output can create periods of excess generation when production exceeds local demand, grid export limits, or network capacity. In many systems, this surplus energy is curtailed, reducing renewable-energy utilization and weakening the economic value of clean generation. This poster presents a power-to-gas approach in which an electrolyzer is operated as a flexible controllable load to absorb excess renewable electricity and convert it into green hydrogen. The proposed concept focuses only on the electricity-to-hydrogen process. When PV and wind output is higher than the required electrical demand, the electrolyzer increases its power consumption and produces hydrogen through water electrolysis. When renewable generation decreases or the grid requires lower demand, the electrolyzer reduces its operating power. In this way, the electrolyzer provides demand-side flexibility while producing a useful energy carrier for industrial or storage applications. The advantage of this approach is that excess renewable electricity is not treated as wasted energy. Instead, it is transformed into hydrogen gas,

supporting renewable curtailment reduction and better utilization of PV and wind resources. Therefore, power-to-gas offers a practical solution to integrate higher shares of renewable energy while expanding the production of low-carbon hydrogen, which still represents less than 1% of global hydrogen production.

Chitosan-Coconut Husk Based Dried Hydrogel for Phosphorus Adsorption

Chrysant Hasim, Tunghai University

Runoff from chemical fertilizers contributes to groundwater contamination and harmful algae blooms, damaging aquatic ecosystems. This study investigates chitosan–coconut husk powder (CHu)-based dried hydrogels as a sustainable material for phosphorus capture in agricultural runoff pathways.

Three hydrogel formulations (2% CHu, 5% CHu, and 2% CHu + $CaCl_2$) were synthesized and compared with a chitosan–nanoclay–iron (CH/NC/Fe) reference hydrogel. The hydrogels were evaluated for water adsorption and phosphorus adsorption capacity using a standardized 24-hour batch test at wastewater-relevant phosphorus concentrations (10 mg P L^{-1}).

Results showed that the hydrogels could adsorb up to five times their weight in water and retain it for a prolonged amount of time. Among the tested formulations, the 2% CHu hydrogel demonstrated the best phosphorus adsorption performance (Rd = 7.252 ± 0.149 L g^{-1}). Although the addition of coconut husk did not significantly improve phosphorus adsorption, it enhanced the structural stability of the dried hydrogels.

These findings suggest that coconut husk can serve as a biodegradable structural filler in chitosan-based hydrogels, with further studies required to understand its properties better.

Evaluating Bamboo Biochar as a Sustainable Soil Amendment

Nichole Hwang, Tunghai University

The overuse of chemical fertilizers has led to soil degradation, nutrient imbalances, and environmental pollution, raising concerns about the sustainability of modern agriculture. This study investigates bamboo biochar—a carbon-rich material produced through pyrolysis—as a potential sustainable alternative for improving soil health and crop performance. Bamboo is a fast-growing and renewable resource with excellent properties such as high porosity, high silica content, and high carbon composition, making it particularly suitable for biochar production and long-term carbon sequestration.

A greenhouse experiment was conducted using four treatments: control, chemical fertilizer, bamboo biochar, and a combined treatment of bamboo biochar and chemical fertilizer. Romaine lettuce and potato were selected as model crops to represent short- and long-term soil responses. Soil parameters, including pH, nutrient availability, moisture, and temperature, were monitored regularly, and crop performance was evaluated through germination rate, plant height and biomass yield.

Initial observations suggest that bamboo biochar may support soil fertility and plant growth compared to untreated soil. Further statistical analysis will be conducted to assess its effectiveness in reducing reliance on chemical fertilizers and improving crop productivity. By providing experimental evidence on the agronomic and environmental benefits of bamboo biochar, this study aims to contribute practical insights into sustainable soil management strategies, offering localized, low-carbon solutions for farmers in bamboo-rich regions such as Taiwan.

From Light to Fuel: Li/Na and N/CQD co-doped $BiVO_4$ as a Game-Changer for Artificial Photosynthesis

David Hsu, Tunghai University

$BiVO_4$ (bismuth vanadate) is a promising semiconductor photocatalyst because it absorbs visible light well, which makes it useful for photoelectrochemical (PEC) water splitting and hydrogen production. Its band gap is around 2.4 eV, so it can use a large part of the visible light spectrum. A lot of past research has focused on transition-metal doping to improve $BiVO_4$ performance, but alkali-metal doping has been studied much less.
Alkali metals may be a simpler and more cost-effective way to improve $BiVO_4$. For example, lithium is relatively abundant and cheaper than many transition metals. Li doping can increase charge carriers and improve charge transport by changing the electronic structure of $BiVO_4$, which may help overall PEC efficiency. Sodium doping may have similar benefits, and combining dopants could further improve performance.
In this project, I used a straightforward hydrothermal method and easy-to-get materials to synthesize $BiVO_4$ and several doped versions. I have compared pure $BiVO_4$ with 1%, 3%, and

5% Li-doped $BiVO_4$ and Na-doped $BiVO_4$. The samples will be characterized using XRD, photoresponse, and transmittance measurements to understand how doping changes the crystal structure, morphology, and electrochemical behavior.
The results showed that all samples retained the monoclinic scheelite phase, indicating that alkali-metal dopants incorporation did not change the crystal structure. However, Na doping at 5 mol%, produced stronger structural and smaller crystallite than Li doping. Optical measurements further revealed enhanced visible-light absorption for all doped samples compared with the baseline $BiVO_4$, with Na-doped $BiVO_4$ showing the strongest absorbance across the visible range. In the conditions, a 0.6 mL stock concentration provided the best balance between signal quality and spectral stability. Preliminary characterization also confirmed successful synthesis of N/CQDs, although these were not yet integrated into $BiVO_4$.

The Impact of Air Quality on Athlete's Sports Performance

Ryan Yang, Tunghai University

Air pollution is now a global health problem and is known as a significant environmental factor affecting respiratory and cardiovascular function and athletic performance. During exercise, due to a substantial increase in ventilation, athletes ingest far more pollutants than the average person. In athletes, these mechanisms may lead to transient reductions in pulmonary function, bronchial hyperresponsiveness, decreased maximum oxygen uptake (VO_2max), and impaired exercise performance.

Ride-hailing proof on Algorand

Eziz Bayramov, Tunghai University

AlgoRide is a ride-hailing app concept where riders request trips in a familiar mobile flow while wallet settlement, receipt evidence, and driver payout proof run on Algorand.
The upgraded poster centers on one live route: Tunghai University to Fengjia Night Market. The local app produced the route quote and QR payment request; Pera Explorer confirms the Testnet transaction.

Hourly Air Pollutants Dynamics at Xitun Station, Taichung City

Jason Su, Tunghai University

Madison Lin, Tunghai University

In populated urban areas, air pollution can affect human health and quality of life. Exposure to pollutants is likely to vary by the hour of day. Identifying time periods when concentrations are consistently higher can be useful in interventions such as traffic flow adjustments or temporary emission controls.

This study analyzes hourly pollution measurements obtained at the Xitun station in Taichung City in January 2026. The six time series each contain 745 hourly observations reflecting the presence of SO_2, CO, O_3, PM_{10}, NO_2, and $PM_{2.5}$. Quadratic regression models were first fitted to the hourly series of each pollutant to identify minima and maxima (peak and low pollution hours). Higher-order polynomial models were also fitted and compared using residual sums of squares. The higher-order models consistently produced a better fit for the observed data but were more susceptible to noise and artifacts, occasionally producing unrealistic fluctuations that did not reflect genuine pollution events.

Notable differences emerged between pollutants. NO_2 and CO peaked sharply during the morning (07:00–09:00) and evening (18:00–20:00) rush hours, while PM_{10} and $PM_{2.5}$ followed similar but weaker patterns. O_3 displayed an opposite trend, reaching its highest levels in the afternoon. SO_2 showed no clear daily pattern. Most pollutants reached their lowest concentrations during the early morning hours (02:00–05:00) and their highest concentrations during morning or evening traffic periods.

In conclusion, even a single month of consecutive hourly data can reveal useful temporal structures in multiple air pollutants. Higher-order polynomial models offer greater flexibility than a simple quadratic for all pollutants examined. A full year of data would be required to examine seasonal cycles or rare pollution episodes. This study demonstrates that comparative polynomial modeling of government air quality data can effectively identify high-pollution periods and provide insights to support targeted air quality management in Taichung City.

Impact of AI data centers on the Environment

Marco Lee Rusli, Tunghai University

Monica Guo, Tunghai University

The rapid growth of artificial intelligence (AI) has led to an increasing demand for data centers that support AI applications. While these facilities enable technological advancements, they also have significant environmental impacts. AI data centers consume large amounts of electricity and water, contributing to greenhouse gas emissions and climate change when powered by non-renewable energy sources. Additionally, their construction and operation can affect surrounding communities through increased resour-

ce consumption, heat generation, noise pollution, and land use changes. This poster examines the environmental effects of AI data centers, focusing on their contribution to climate change and their impact on local ecosystems and populations. It also explores potential solutions, including renewable energy adoption and improved cooling technologies, to reduce these environmental challenges.

Differential effects of Na_2CO_3 and Li_2CO_3 on the structural features of $BiVO_4$ revealed by X-ray diffraction and multivariate analysis

Daniel Sylvester Thomas , Institute of Chemical Technology, Mumbai

Anakhaa R. Nair, Institute of Chemical Technology, Mumbai

Bismuth vanadate ($BiVO_4$) is a promising visible-light photocatalyst whose performance is strongly influenced by crystal structure and local distortions introduced during synthesis. Alkali carbonates such as Na_2CO_3 are widely used as basifying agents, but the comparative structural impact of Na_2CO_3 versus Li_2CO_3 addition remains poorly understood. In this work, five $BiVO_4$ samples (plain, 3% and 5% Na_2CO_3-modified, 3% and 5% Li_2CO_3-modified) were synthesized and characterized by powder X-ray diffraction (XRD). From the diffractograms we extracted a set of descriptors, including normalised peak intensities, the I(28.8°)/I(30.5°) intensity ratio, FWHM-based crystallite sizes, measures of peak splitting (doublet/triplet counts and splitting magnitudes), and small 2θ shifts at selected reflections. Principal component analysis (PCA) of these descriptors shows that the first two components account for about 80% of the total variance and clearly separate plain $BiVO_4$ from all carbonate-modified samples along PC1, while PC2 further distinguishes Na-modified from Li-modified samples. A simple hierarchical cluster analysis on the same descriptor set yields a consistent grouping, with plain $BiVO_4$ forming its own branch and Na- and Li-containing samples forming cation-specific sub-clusters. These results indicate that the identity of the alkali carbonate, even at similar nominal loadings, leaves a recognizable structural fingerprint in the $BiVO_4$ diffraction patterns, primarily through changes in relative peak intensities and splitting behaviour rather than through large peak broadening or the appearance of new crystalline phases.

Hallucinated Health Advice: The Dangers and The Effectiveness of AI Usage In Medical Environment

Jeremy Hansel Wijaya , Tunghai University

Joey Hsu, Tunghai University

Okay Enes Gurakar, Tunghai University

Yu-Ling Liu, Tunghai University

In recent years, AI integration in healthcare, such as Halodoc's chatbot and Clinical Decision Support Systems (CDSS), has surged. However, this progress triggers an ethical dilemma: to what extent can AI be trusted in decision-making? The primary challenge arises from "black box" algorithms, which lack transparency, and potential data biases that risk exacerbating health disparities. Medical practitioners face uncertainty between AI efficiency and the need for human intuition, compounded by risks of "automation bias" that may impair clinical judgment.
This study adopts a qualitative approach with a case study design to evaluate AI integration. The methodology involves a systematic literature review and thematic analysis of existing ethical frameworks, referencing empirical studies on the ethical implications of decision support systems and medical AI accountability (as documented in PubMed/PMC databases). The research aims to map how practitioners navigate the tension between technological efficiency and moral responsibility. The analysis confirms that AI credibility relies heavily on rigorous clinical validation and algorithmic transparency. AI must be positioned as a collaborative partner that complements, rather than replaces, the physician's moral and clinical judgment to ensure patient safety.

Sea Level Rise and Climate Justice: The Threat to Cultural Survival in Tuvalu

Iris Yue, Tunghai University

Sea level rise is one of the most urgent consequences of climate change and disproportionately affects low-lying island communities. Tuvalu, a Pacific island nation with one of the world's lowest contributions to global carbon emissions, is increasingly exposed to coastal flooding, shoreline erosion, and saltwater intrusion. Existing discussions often emphasize environmental and economic damage, yet the cultural consequences of climate change receive less attention.

This project examines sea level rise through the perspective of climate justice, focusing on how environmental change threatens the cultural survival of indigenous communities in Tuvalu. Beyond the physical loss of land, rising seas may disrupt traditional lifestyles, weaken community identity, and challenge intergenerational connections to place and heritage.

Using a climate justice framework and a qualitative case study approach, this poster analyzes the relationship between environmental vulnerability and cultural preservation. It also explores how Tuvalu is responding to these challenges through adaptation efforts such as coastal protection, land management, and long-term planning for future generations. Rather than viewing Tuvalu only as a victim of climate change, this study highlights the actions being taken to protect both the physical environment and cultural continuity in the face of rising seas.

Arts & Humanities Poster Abstracts

High School

Youth Empowerment and Culture: Introducing the Taiwan-Philippines Youth Writing Exchange Program

Stacy Valerie Bucol, Shi-Yuan Senior High School

This poster presents the Taiwan-Philippines Youth Writing Exchange Program, a 3-week cultural project that connects both Taiwanese and Filipino youth through writing. The poster reflects on my own experiences as an exchange student in Shi-Yuan Senior High School and how living in Taiwan as well as how this project has increased my awareness on the importance of cross-cultural connection especially among young people.

The Tug-of-War in Mental Health Care Protection or Harm? — The Right of Taiwanese Adolescents to Autonomy in Mental Health Care

Annabelle Lin, Taoyuan Municipal Wu-Ling Senior High School

This study explores the conflict between institutional regulations and cultural realities surrounding adolescents' autonomy in mental healthcare in Taiwan. As mental health issues and delayed treatment among Taiwanese adolescents continue to rise, minors seeking psychological or psychiatric assistance still face barriers such as parental consent requirements, limited privacy, and social stigma. This research examines how East Asian cultural factors, including family authority, academic pressure, and the stigmatization of mental illness, influence adolescents' willingness to seek help. It also analyzes the legislative intentions behind Taiwan's mental healthcare policies for minors and investigates whether excessive parental involvement may unintentionally restrict adolescents' medical autonomy. Furthermore, the study compares Taiwan's system with those of other countries and discusses possible reforms that could better balance the protection of minors with respect for individual autonomy.

A Norm-Referenced Study on The Quality and Perceptions Related To Multiple-Choice Questions in The 2025–2026 Grade 10 Entrance English Exam For 9th Graders in Thanh Hoa, Vietnam

Truong Diem Quynh, National Kaohsiung Normal University

This mixed-methods study evaluates the quality of Multiple-Choice Questions (MCQs) in the 2025-2026 Grade 10 English Entrance Exam in Thanh Hoa, Vietnam, while investigating teacher and student perceptions of difficulty. Analyzing 25 items from a high-stakes assessment administered to over 43,000 candidates, the research triangulates norm-referenced item analysis, expert validation, and thematic qualitative interviews to evaluate test validity.

Statistical analysis reveals a rigorous design: 52% (13 items) were Moderate (IF: 0.41–0.60) and 48% (12 items) were Difficult (IF: 0.21–0.40), with no easy items detected. Despite this, the test showed exceptional discriminative power, as 92% of items achieved a “Very Good” Discrimination index (ID ≥ 0.40). Distractor Efficiency reached 96%, indicating high distractor plausibility. Furthermore, an Independent Samples t-test ($p = .047$) confirmed a significant gap in perceptions: Bottom-performing students ($M=3.02$) perceived the exam as much more challenging than the Top group ($M=2.47$).

Qualitatively, while teachers generally viewed the exam as curriculum-aligned, thematic analysis revealed critical pedagogical "bottlenecks." Significant hurdles were identified in phonetics, specifically word stress due to lexical category deficiency, and reading comprehension, which required complex contextual inference beyond isolated rules. These challenges induced psychological distress, characterized by avoidance behaviors like blind guessing and "stalling," particularly among rural learners with restricted lexical ranges. The study concludes that while the exam effectively establishes a performance hierarchy, its high cognitive demand poses affective barriers. Recommendations include adopting a 70/30 difficulty matrix, enhancing practical application items, and providing targeted teacher training to balance academic rigor with educational equity.

Y2K Typography: Between Reading and Seeing

Pei-Chen Wei, National University of Kaohsiung

In recent years, Y2K aesthetics have re-emerged in graphic design, particularly in typography. Characterized by distortion, decorative elements, and strong visual identity, Y2K typefaces are widely used across media such as posters, photography, and digital content. However, compared to modern sans-serif typefaces, they often exhibit lower readability.

This study investigates the relationship between stylistic intensity and readability, and examines how different typographic treatments influence reading behavior and visual perception. Three conditions were tested: high-intensity Y2K, low-intensity Y2K, and modern sans-serif. Participants read identical texts under each condition and were evaluated based on Reading Accuracy, Aesthetic Preference, Level of Interest, Reading Time, and Impression Strength.

The results show that as readability decreases, reading shifts from efficient information processing to a slower, more perceptual experience. While sans-serif typefaces enhance clarity and speed, Y2K typography introduces visual complexity that increases attention and strengthens visual memory.

This study suggests that readability should not be treated as the sole criterion in typography, but as a variable that can be strategically adjusted. By introducing friction into the reading process, designers can transform typography from a functional medium into an experiential one.

The Influence of Islamic Thought on Medieval Maths and Its Resonance in Modern Science

Cheyenne May Hellawell, Tunghai University

I open by discussing the significance of the house of wisdom, and how many Islamic requirements such as daily prayers, Qibla, Zakat. I want to explain that religion was the backbone that cultivated a society in which scientific advancement was rewarded. Religious requirements are what pushed Islamic scholars to join together and research the science of any culture they could find in pursuit of a single faith-related goal.

A split section in the middle detailing the influence of the three main cultures dissected and recorded by Islamic scholars being Greece, India, and Persia.

Greece’s section will detail the rigorous translation of Greek story problems into universal

formulas, core definitions of theoretic sciences and the concept of "nature" which differed, Randomness and irrational numbers treated in a new light.

India's section will detail the adoption of Hindu numerals, and how numbers 0-9 were decided upon to be a universal language. clash between Hindu and Islamic beliefs and the concept of "Bid'ah" which required many Indian texts to have mythological backings and cultural influences filtered out, created first version of secular sciences. first defined version of Algebraic techniques.

Many ancient cultures like the Babylonians were preserved within Persian writing but not deeper inspected until this scientific movement which allowed old texts to be brought into the new universal language, multicultural hub of the house of wisdom. Chinese influence on Muslims which brought paper technology, highlighting the importance of trade and foreign relations.

It's only through the uniformity and clarity of Islamic record keeping that foreign future cultures such as Europeans were able to quickly pick up the lessons and teach it amongst themselves, adding onto the discoveries and leading to modern sciences. This method of universal messaging is a core concept in Islam rooted in the preservation of the Quranic writing.

Danger Does Not Announce Itself: A Service Design Approach to Women's Self-Protection and Real-Time Support During Travel

Zi Chi Yang, Feng Chia University

Han Wen Chuang, Feng Chia University

Yi Fan Chen, Feng Chia University

This project addresses the pervasive issue of harassment faced by women in public spaces. Despite the high frequency of such incidents, many women remain silent due to fear, and existing market solutions often fail to provide effective, immediate assistance. SHiEld+ was developed to bridge this gap through service design, creating a reliable and intuitive support system for female self-defense.

Utilizing in-depth interviews and secondary research, the study identified two critical pain points: the lack of immediate on-site help and the need to de-escalate and exit threatening situations safely. By applying service design methodologies—including contextual inquiry, personas, and user journey mapping—the project defined its core mission: "How to enable solo female travelers to achieve safe and effective self-rescue when encountering strangers."

The resulting innovation, SHiEld+, is a comprehensive system integrating prevention, real-time response, and post-incident support. The solution features a digital interface with

voice deterrence and route-warning capabilities, paired with a multi-functional physical device combining a power bank and pepper spray. Complemented by a psychological counseling referral service, SHiEld+ offers a holistic approach to personal safety. This research provides a new design paradigm for female empowerment and serves as a practical reference for future applications in personal security services

Addiction and Moral Responsibility: Between Choice, Compulsion, and Psychological Vulnerability

Otgontsetseg Shinekhuu, Tunghai University

Addiction is often understood either as a personal choice or as a disease that removes self-control. This project examines the relationship between addiction and moral responsibility by exploring psychological, biological, and social explanations of addictive behavior. The research asks whether addicted individuals should be held morally responsible for their actions if addiction weakens their ability to make rational decisions.

This study analyzes competing perspectives in philosophy and addiction studies, including the brain disease model, psychological theories of vulnerability, and theories that emphasize personal choice and agency. By examining scholarly debates on autonomy, self-control, and responsibility, the project argues that addiction does not completely remove human agency, although it can significantly weaken decision-making capacity. Because individuals often retain some ability to resist or recover from addiction, moral responsibility should not be entirely removed. However, responsibility should also be understood within a broader social and psychological context that includes emotional vulnerability, family influence, and environmental factors.

The project contributes to ongoing discussions about ethics, free will, and human behavior by presenting addiction as a complex condition that exists between compulsion and choice rather than as a purely voluntary or purely involuntary phenomenon.

Breaking the Rules or Breaking the Physics? The Philosophy of Speedrunning

This presentation will show where we draws the line between legitimate play and actual cheating. While finding software bugs are well-received by gamers, external interventions such as hardware modification and hacking are not allow. We aims to challenge this misconception and stereotype of speedrunning community.

Why Learning Business Chinese is a Career Advantage?

Hillary Celine Hartono, Tunghai University

Vanessa Tiffany Layardi, Tunghai University

Natalia Aurielle Gozali, Tunghai University

In today's world where globalization has overgrown, Chinese has emerged as one of the most prominent languages in the world of international business and communication. As Taiwan and China continue to play important roles in global trade, competency in Business Chinese is now not just about having a skill but a necessity in the contemporary workplace. This research aims to prove that knowing Business Chinese can make one's career opportunities much better. Learning Business Chinese improves your ability to communicate professionally and understand cultures outside your own, giving you better negotiating abilities. Business Chinese allows one to establish contacts with people for better relationships and makes job hunting easier and less stressful. Knowing Chinese business practices and customs makes a professional well-suited for working in a multinational setting. Therefore, learning Business Chinese is worth investing in and reaps benefits in career growth and employment prospects.

AI and Education

Fay Hsu, Tunghai University

Yizhen Liu, Tunghai University

This report explores the phenomenon of students' over-reliance on and blind faith in AI. While AI technology brings convenience, maintaining independent thinking remains crucial; a lack of independent thinking and judgment among students will trigger a series of negative impacts. From an educational perspective, the report will delve into the specific consequences and resulting social problems of over-reliance on AI.

AI and Misinformation/Media

Charlotte Revett, Tunghai University

Hope Wang, Tunghai University

Phiwokuhle Ntuli, Tunghai University

Keira Mei Kuhn, Tunghai University

Artificial intelligence is playing an increasingly important role in how people access information through modern media and online search platforms. This poster investigates how AI can contribute to the creation and spread of misinformation, and what challenges this presents for the reliability of information online. The topic is important because many people now rely on AI-assisted tools to answer questions, summarize information, and even replace traditional web searches. As companies such as Google introduce AI-generated search summaries, concerns have emerged about accuracy, hallucinations, false citations, and the potential spread of misleading information.

This poster will examine how AI-generated text, images, and videos can influence public understanding of events and issues. It will also explore examples of inaccurate AI-generated search results, the limitations of large language models, and the risks of users accepting AI responses without verification. In addition, the poster will discuss strategies for fact-checking, source verification, and responsible AI use.

We expect to fine that AI will be a powerful tool for accessing information, but its reliability depends heavily on the quality of its training data, the design of the system, and the users willingness to verify information through independent sources. We will use our course material and examples from current media, with help of AI-powered platforms to do research.

Should Esports be treated as real sports?

Jennifer Wang, Tunghai University

Justin Chung, Tunghai University

Veilvel Hsieh, Tunghai University

Eason Zhang, Tunghai University

Our position is that Esports should be treated as real sports, even though they are different from traditional physical sports. We want to argue that the meaning of “sport” should not only depend on how much physical movement is involved. Instead, we should also look at skill, training, rules, competition, teamwork, and the level of commitment required from players.

In Esports, professional players need fast reactions, strong mental focus, strategic thinking, and many hours of practice. They also have to work with teammates, follow formal rules, and compete fairly against other players. These features are very similar to traditional sports.

From the perspective of arts and humanities, activities that were once viewed as unconventional have gradually gained recognition as legitimate sports when they

demonstrate organized competition, established rules, dedicated communities, and meaningful social influence. In this way, eSports definitely fit this criteria. ESports involve leagues, international competitions, regulations, communities, and even shared cultures between different countries.

One possible objection is that eSports should not count as real sports because they do not require enough physical activity. But I think this objection is too narrow. Some recognized sports, such as shooting, archery, or chess-related competitions, also depend more on precision, concentration, and strategy than on large body movement. If those activities can be treated as sports or sport-like competitions, then eSports should not be rejected only because they happen through a computer or console.

The poster will compare Esports with traditional sports and show that both involve rules, competition, training, skill, fairness and community involvement also have their significance. Our goal is not to say that eSports and traditional sports are exactly the same, but to argue that eSports are close enough to be treated as real sports in an important sense.

Should esports be considered a real sport?

Bailey Zhuang, Tunghai University

Brian Chen, Tunghai University

Leonis Li, Tunghai University

The results identify several important conceptual dissonances that undermine the conceptualisation of e-sports as a sport. Although esports require a high level of cognitive activity and fine motor skills, they are not subject to direct physical interaction in the same way as traditional sports, with individual plays being conducted through virtual interfaces. Secondly, the regulation of esports is by necessity subordinate to the commercial game publishers that possess absolute intellectual property rights and “executive ownership” over the games. This commercial dependency is in stark contrast to the traditional sports federations’ democratic, non-profit organization. We conclude that, while e-sports offer a highly advanced, challenging and legitimate type of modern contestation, they cannot by their very nature be considered as sports. Instead, they should be considered a distinct, fundamentally different, and new genre of digital competitive games.

More Than Just an Angry Cat

Aaron Huang, Tunghai University

My project is about the webcomic “Shikaru Neko (The Chastising Cat)” and examines it through Scott McCloud’s ideas in Understanding Comics. At its core, the comic is very, very simple. There is a small cat in front of a blank background with little text. But that simplicity is exactly what makes it effective. The cat doesn’t need detailed fur or complex anatomy to feel expressive. Its minimal design and exaggerated facial expressions make its emotions immediately understandable and even more impactful since it only shows the viewer what they need to see.

What’s also interesting is how little of the “story” is actually shown. Each chapter begins with the cat already angry in the first panel, saying things like: “You’re glued to your smartphone again!!” “What do you mean you only just woke up?!” “Could it be? Snacking again!?” There’s no bed, no table, no couch, no room. Yet, as the reader, you can still clearly understand what’s happening between panels because your mind fills in the missing details – an example of McCloud’s idea of closure.

eSports

Kyle Hsiao, Tunghai University

Justin He, Tunghai University

Yuna Zhuang, Tunghai University

We plan to answer the question, “Should esports be considered a sport?” Our position is that esports should be recognized as a legitimate sport because they require many of the same skills as more recognized sports. Professional esports players have fast reflexes, good communication and teamwork, and strategic thinking when competing at high levels. During competitions, players must make split second decisions under pressure and their heart rates can increase, similar to athletes in traditional sports. Esports can also be considered a mind sport like chess. Success depends more so on mental skill and strategy rather than physical strength.

Are glitches cheating in speedrunning

Jonathan Jiang, Tunghai University

Jack Wang, Tunghai University

Omiya Lin, Tunghai University

Oscar He, Tunghai University

Speedrunning is the practice of finishing a video game as quickly as possible, often through advanced techniques, strategic gameplay, and most crucially, detailed knowledge of the game's mechanics. This poster examines a central philosophical question posed by speedrunning: are glitches a form of cheating, or legitimate techniques within a different kind of play? Looking forward to Hemmingsen's account of speedrunning as a metagame, we argue that glitches are not inherently cheating when they are performed through the unmodified game code (or you can call it cheat code) and accepted by the relevant speedrunning and gaming community. In this context, the initial game isn't played as intended by its designers; instead of that, it becomes an environment for a player-created activity structured by speed, community rules, and collective knowledge. On the other hand, the opposing view claims that glitches violate the intended challenge of the game. We respond that speedrunning has its own spirits: cheating occurs not when players apply the codes, but when they modify, fake, or externally manipulate the conditions of a valid run.

Visualizing Trauma in Attack on Titan: A Manga Analysis of Trauma Through Visual Storytelling

Willem Gao, Tunghai University

This poster examines how trauma is visually represented in Hajime Isayama's manga Attack on Titan. The study introduces the manga as a dark fantasy narrative that explores war, loss, fear, and survival through both its story and visual design. The poster provides an overview of how traumatic experiences affect major characters and how these experiences are communicated to readers through manga-specific techniques.

The theoretical approach is based on manga visual analysis, with particular attention to panel composition, visual symbolism, and narrative pacing. These principles allow readers to understand emotional and psychological states not only through dialogue but also through the arrangement of images, page layouts, and symbolic imagery. By applying these concepts, the study investigates how visual storytelling contributes to the portrayal of trauma.

As background, Attack on Titan follows humanity's struggle against giant humanoid creatures known as Titans while uncovering deeper political and historical conflicts. The selected case studies focus on key scenes involving loss, violence, and psychological distress. Through this analysis, the poster demonstrates how manga's visual language effectively conveys trauma and shapes readers' emotional engagement with the narrative.

Villain introduction: The impact of Proper Paneling

Frederick Liang, Tunghai University

Chrysant Hasim, Tunghai University

The introduction of a villain in any media (comic, novel, webcomic, etc) is an integral part of a story where it sets the tone of the upcoming struggle, the characters response and readers perception. There are many methods for a comic or a manga to tell its narratives to the reader, other part such as colouring, size of the spacing, and the placement of the panels are a significant factor in storytelling [1][2]. The impact of proper panelling cannot be underestimated especially on the introduction of a villain in a comic or a manga. Here, we will examine how panel layout can enhance suspense, emphasize character traits, and create a stronger emotional response from readers. Through the analysis of our selected manga title of The Faraway Paladins(最果てのパラディン) by the author Kanata Yanagino and the mangaka Mutsumi Okuhashi. This study highlights the role of paneling as a narrative tool that contributes significantly to the memorability and impact of villain introductions.

Analysis of the Manga Series “Monthly Girls' Nozaki-kun” from Understanding Comics by Scott McCloud’s perspective

Undral Amarbayar, Tunghai University

Monthly Girls' Nozaki-kun 月刊少女野崎くん is a Japanese four-panel manga series written and illustrated by Izumi Tsubaki. The comics follow the main character, Chiyo, as she helps Nozaki with his manga and hopes that he will eventually notice her feelings. The story not only showcases the characters' daily lives but also how the process of making a manga goes. Using the educational comic, Understanding Comics by Scott McCloud, I will analyse how the manga uses the same techniques that are introduced here in this book. Comparing both comics, I will explore the formal aspects of comics, its fundamental vocabulary, and various ways in which these elements have been used.

The Impact of Color on Story

Cameron Kaplan, University of Pittsburgh

Color is a wonderful part of engaging with visual media, and when used properly it is an excellent way to help enhance a work's message, themes, ideas, or communication of concepts. Scott McCloud in “Understanding Comics,” communicates how “In black and white, the ideas behind the art are communicated more directly... In flat colors forms themselves take on more significance.” Color's ability to enhance perception, sensation, and experience of the medium strengthen art's ability to tell its story. The real world is experienced in color, so when the media uses color as another method of communication, the work can be enhanced to feel closer to reality and even transcend it. Two different comics that use color in these ways to elevate to and past the feelings of reality are “Lore Olympus” by Rachel Smythe and “Absolute Martian Manhunter” drawn by Javier Rodríguez and written by Deniz Camp. “Lore Olympus” follows the Greek gods through modern reinterpretations of classic myths. Each god is made of vibrant and distinct colors, and these colors shift, leach out of the characters into their environments, or clash with the colors of other gods as they experience challenges and struggles. The very make up of the characters is based on color, and the experience and response of these characters to their world is told through how their colors behave. “Absolute Martian Manhunter” uses color differently as the main character learns to look past reality into the emotions of others, the colors of the mind are shown to overtake the colors of reality, once again showing colors ability to enhance sensation. Through analyzing these comics and their colors, the strength and use of color as a tool to enhance a story is revealed.

The gray area of speedrunning

Ivy Su, Tunghai University

Evan Murray, Tunghai University

James Chen, Tunghai University

The question we chose for our poster project is whether or not we should consider glitches and exploits “cheating” in video games, specifically speedrunning. Our position is “No, we are in disagreement that glitches and exploits are cheating in a speedrunning format.” We believe this on the grounds that “code is law” and that in whatever state a game is presented to a player in, no matter how many bugs it may contain for example, is how it can be fairly played We also argue that glitches and exploits are not cheating assuming that the glitches/exploits in question are executable entirely by the player using no abnormal outside assistance (“Tool-Assisted Speedruns” for example. A scenario in which a player does have eternal assistance, it would be considered cheating.

Ecofeminism: Exploring the Intersection of Gender Equality and Climate Justice

Shalom Shiloh Mega, Tunghai University

Climate change and gender inequality are often discussed as separate issues; however, ecofeminism highlights the important connections between them. This poster aims to raise awareness of how environmental degradation and social inequalities are interconnected, demonstrating that climate justice cannot be fully achieved without gender justice. Drawing on ecofeminist literature, particularly materialist ecofeminist perspectives, the study explores how social, economic, and political systems contribute to both environmental exploitation and gender-based inequalities. A review of scholarly articles, books, and interviews was conducted to examine the relationship between women, marginalized communities, and environmental sustainability. The findings suggest that environmental challenges often disproportionately affect women, especially in communities that depend directly on natural resources for their livelihoods. Materialist ecofeminism provides valuable insights by emphasizing the role of unequal labor divisions, economic structures, and systems of domination in shaping both ecological and social injustices. Future research should further investigate how ecofeminist principles can inform environmental policies, climate adaptation strategies, and sustainable development initiatives that promote both ecological sustainability and social equality.

The Potential of Environmental Personhood in Achieving Ecological Justice

Maya Young, State University of New York ESF

In our everyday lives, we consider a human to be a person, and a person to be a human. However, under the law, a person is any entity that is capable of engaging in all usual legal business that a ‘real’ person can participate in, such as suing, being sued, owning property, and entering into contracts. Legal persons include corporations, estates, and increasingly, the environment. The Rights of Nature movement advocates for giving environmental entities like forests, lakes, and mountains legal personhood. Based on a review of the literature on existing initiatives to recognize natural entities as people, the goal of this poster is to inform the audience about the value of environmental personhood. For instance, in 2008, Ecuador became the first country to implement nature’s rights in its constitution. In 2014, Te Urewera Park in New Zealand became the first natural feature to be recognized as a legal person. Since then, other mountains and bodies of water have gained similar legal status in various countries. As human activity continues to severely

degrade ecosystems, environmental personhood provides a pathway for stronger rights, protection of our planet, and achieving ecological justice.

A Happiness for You: Simplification as Amplification

Sarah Liu, Tunghai University

This poster examines the unique visual communication methods in the Japanese comic 幸せをあなたに （A happiness for you)by アボガド6(Avogado6). The manga is known for its simple layout and black and white panels, using short stories to show deep emotions. Mainstream comics often use realistic backgrounds to help readers perceive real settings. However, this comic uses simple compositions on purpose. Applying the concept of amplification through simplification, this comic explores how leaving out details accentuates the main story. It also looks at how text and images work together within the frame to create a strong psychological feeling without causing an uncanny valley effect. The preliminary findings show that simple visuals do not reduce narrative depth. Instead, they make the story flow better and improve reader empathy. It shows how minimal visual clues can create a strong emotional connection in modern art.

Beyond Blood Ties: Care and Family Relationships in Shoplifters and How to Make Millions Before Grandma Dies

Hsiu Chi Yang, Tunghai University

This poster compares Shoplifters (2018) by Hirokazu Kore-eda and How to Make Millions Before Grandma Dies (2024) by Pat Boonnitipat to explore how contemporary Asian films challenge traditional definitions of family. While Shoplifters portrays a group of unrelated individuals who create a caring household, How to Make Millions Before Grandma Dies focuses on a biological family shaped by financial interests, expectations, and emotional distance. Through an analysis of key scenes, characters, and family relationships, this project examines themes of caregiving, belonging, poverty, aging, and intergenerational connections. The comparison suggests that family is not defined solely by blood ties, but also by love, responsibility, and mutual support. By analyzing these films together, the project highlights how meaningful relationships can emerge in different social and cultural contexts, offering a broader understanding of what it means to be a family in modern society.

When Communication goes Beyond Language: The Impact of Cultural Differences on International Business Communication

Keira Sandusky, Tunghai University

In today's global economy, cross cultural communication is extremely important in securing key business deals, especially with the U.S. and China, thus making English and Mandarin Chinese two of the most important languages in the business world. In a global professional setting, however, proficiency in either of these languages alone is not enough for successful communication. In addition to language proficiency, one must develop a deep understanding of the culture that goes along with the language as well. This cultural training is especially important when attempting communication between U.S. and Chinese businesses because of their differences. The two cultures differ significantly even in the most fundamental aspects such as communication styles and business values. While the U.S. is a country that values individualism, transparency and directness, China on the other hand places more value in collectivism, harmony and indirectness. This analysis examines how miscommunications between American and Chinese businesses due to cultural differences can negatively impact business outcomes and argues understanding the culture holds as much importance as learning the language itself for effective cross-cultural communication.

How To Change A Person

Veyane Braugher, Davidson College

Kiera Mei Kuhn, Tunghai University

Comics are a medium that are used to express ideas and tell information through combining pictures and textual elements. Not only are they great sources of entertainment that transport people into numerous other worlds created by the minds of creators, but they also are a practical tool that can be used to convey information and explain instructions. For They are far more than just pictures and text. Comics are communication, and they can communicate a number of things to readers. Going off of Chapter 5: Living there are instructions on how to open a package, or a sign is showcasing how to call a taxi. Following this, we turn to chapter 5: Living in Line from Scott McCloud's Understanding Comics: The Invisible Art. In this chapter, McCloud explains the way that comics can use lines to evoke specific emotions and sensual responses in the readers. The way a characters emotions, poses, or expressions are either intentionally drawn, shown, or exaggerated can provide the reader with enough visual information even without the help of text. Like how many understand softer rounded lines make us think of whimsy softer things unlike bold sharp lines. Looking at this concept, we will be looking at Shadows House, a Japanese

manga series written and illustrated by the duo Somato. The way to duo uses lines in their work not only sets the tone of the manga through stylistic choices but also gives the readers visual information (such as personalities and world building) through the characters expressions, gestures, and effects. This is emphasized by the authors usage of the faceless other main characters. You can't understand their expressions through their face, but their gestures and line work give the readers all the information they need.

Da Yu Ling Tea

Winnie Chen, Tunghai University

Bailey Zhuang, Tunghai University

Russel Huang, Tunghai University

Trevor Crane, Tunghai University

Dayuling Tea is known as "The King of Taiwan High Mountain Tea" because of its high altitude, limited production, excellent quality, and unique flavor. As a result, it is often more expensive than other high mountain teas.

G5 Four Seasons Spring Tea

Willzen Chan, Tunghai University

Fuka Mishina, Tunghai University

Vincent Caminneci, Tunghai University

Ivy Su, Tunghai University

Our project tries to depict the taiwanese tea culture experience through our Tea Ceremony Demonstration. We will be presenting about Four Seasons Spring Tea, one of the most popular tea types in Taiwan. We will showcase its history and details through storytelling, and giving a taste of the tea to guests who will partake in our Tea Ceremony.

How Tea Supports Physical and Mental Health

Bastian Wu, Tunghai University

Christina Li, Tunghai Universit

Jolin Wang, Tunghai University

Maya Rozalia, State University of New York ESF

The point of this poster is to showcase how tea isn't just a simple drink but it has other health benefits that comes along with it.

Taiwan: The Land of Great Tea

Aaron Yao, Tunghai University

Vivian Lin, Tunghai Universit

Vivian Ke, Tunghai University

Taiwan is internationally recognized for producing some of the world's finest teas. Thanks to its mountainous terrain, favorable climate, fertile soil, and frequent mist, Taiwan provides ideal growing conditions for tea plants. Over generations, Taiwanese tea farmers have developed advanced cultivation and processing techniques, creating teas that are highly valued both domestically and internationally.

This project explores Taiwan's tea culture and highlights several famous Taiwanese teas, including Oriental Beauty Tea, Alishan High Mountain Tea, and Sun Moon Lake Black Tea. Each tea possesses unique characteristics shaped by its environment and production methods. Oriental Beauty Tea is especially notable for its natural honey-like sweetness and fruity aroma, which develop through a unique interaction between tea leaves and leafhopper insects. Alishan High Mountain Tea is grown at high elevations, producing a smooth texture and delicate floral fragrance. Sun Moon Lake Black Tea is known for its rich body, pleasant aroma, and distinctive flavor profile.

In addition to introducing these teas, the project examines why Taiwan has become one of the world's leading tea-producing regions. Factors such as geography, climate, traditional knowledge, and modern agricultural practices all contribute to the exceptional quality of Taiwanese tea. The tea industry also plays an important role in preserving cultural heritage and supporting local communities.

Through this research, we aim to increase awareness of Taiwan's tea culture and demonstrate how natural environmental conditions and human expertise work together to create world-class teas. By understanding the history, production processes, and unique qualities of Taiwanese tea, people can gain a deeper appreciation for Taiwan's rich agricultural traditions and its contribution to global tea culture.