NATIONAL TAIWAN NORMAL UNIVERSITY

NEWSLETTER

ISSUE 07: SPRING/SUMMER 2025

COVER STORY: NTNU'S NEWEST EXHIBITION SPACE NURTURES TAIWAN'S ART HISTORY AND ART FUTURE

FOCUS: CONTRIBUTIONS TO RESEARCH, POLICY, AND PRACTICE PAVE THE WAY FOR TAIWAN'S SUPER-AGED SOCIETY

President's Message

At NTNU, the integration of tradition and innovation guides our academic and cultural efforts. The NTNU Art Museum reflects this principle, linking heritage with contemporary inquiry. Through its architectural design and interdisciplinary exhibitions, the museum supports education, research, and community engagement, highlighting the connections between art, technology, and cultural heritage.

Equally transformative is NTNU's work on aging and lifelong learning, the focus of this edition's feature story. As Taiwan approaches the milestone of becoming a "super-aged" society, NTNU researchers and educators are addressing the challenges of demographic change with initiatives that empower older adults through education, digital inclusion, and intergenerational learning. These programs exemplify how academic institutions can redefine aging as an opportunity for growth and connection, creating a model for other nations facing similar shifts.

NTNU's research and teaching remain grounded in addressing real-world challenges. Studies on aging wellness explore how movement science and digital tools can significantly enhance the quality of life for older adults. Similarly, initiatives in art therapy and digital learning apply creative methods to meet pressing social and educational needs, advancing both theory and practice.

International partnerships remain a key element of NTNU's work. Collaborations with institutions across North America, Europe, Asia, and Oceania provide opportunities for academic exchange, joint research, and innovative learning experiences. These global relationships reinforce NTNU's role in building a deeply interconnected academic community that addresses shared challenges with collective expertise.

Cheng-Chih Wu
President
National Taiwan Normal University

National Taiwan Normal University Newsletter

Issue 07
SPRING / SUMMER 2025

Publisher
Cheng-Chih Wu

Publishing
National Taiwan Normal University

Editorial Director
An-Pan Lin

Editor-in-Chief
Min-Ping Kang

Editorial Board
Ying-Shao Hsu
Yi-De Liu
Li-Chun Teng

Copy Editor
Daniel Hu

Content
Yvonne Kennedy

Photography
Shi Chang
Professor Shyue-Ying Chiang
NTNU Art Museum
Taiwan Design Corner
Teh-Chun Art Gallery
Marlene Yu Museum
NTNU-Holistic Education Center

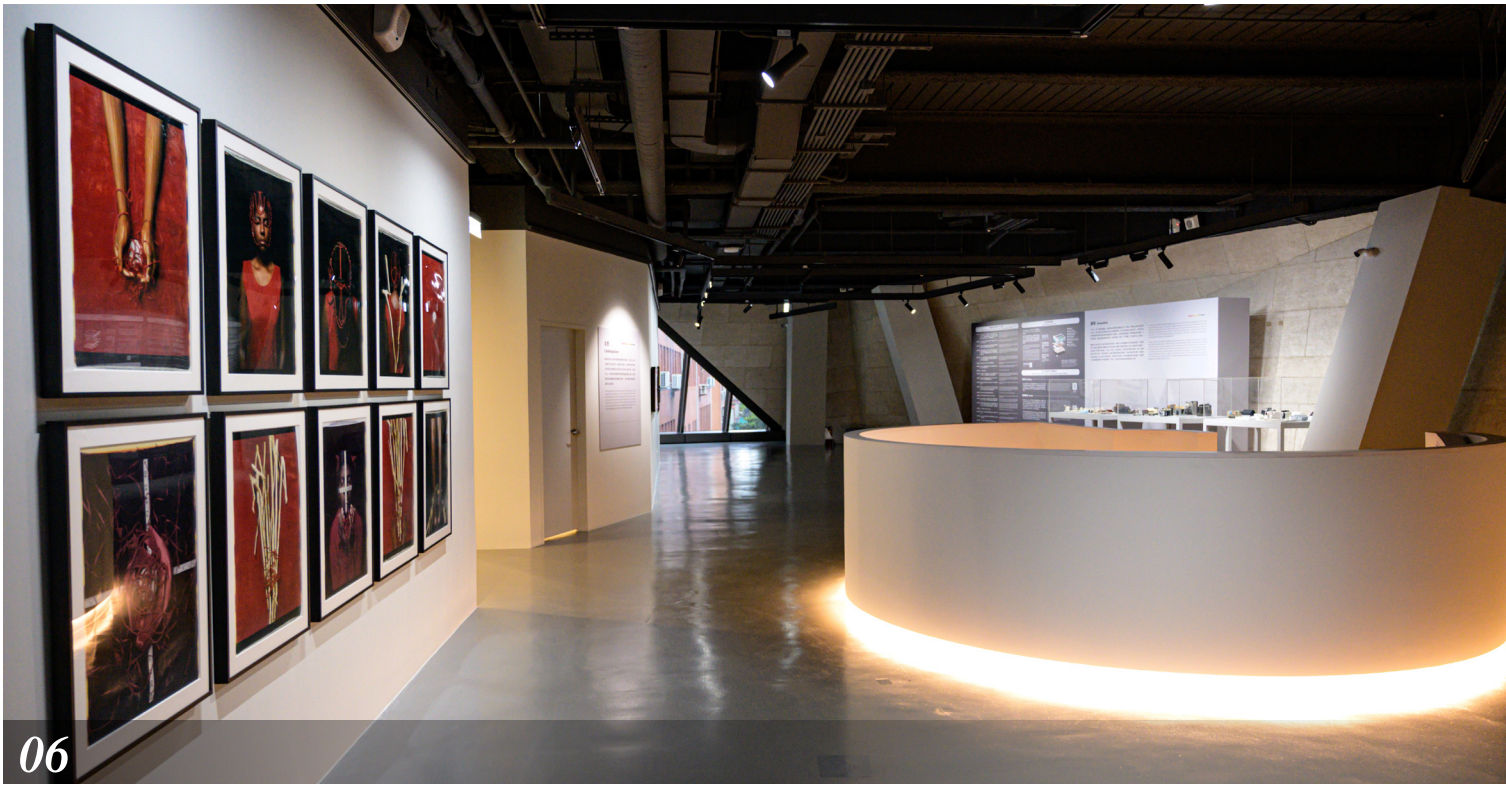
Graphic Design
UNIQUE Design & Advertising

Contact Us

WEBSITE
www.ntnu.edu.tw

LINKEDIN
national-taiwan-normal-university

MAILBOX
pr@ntnu.edu.tw



06

12

17

Features

04 Research Spotlight

Transforming Aging Wellness

The latest findings on cognitive, physical, and emotional wellness for an aging population from NTNU-led research teams.

06 Cover Story

Brushstrokes and Breakthroughs

The new ultra-contemporary titanium-clad museum on NTNU's historic campus is a visual embodiment of the University's unique role as a steward of Taiwan's artistic heritage and explorer of Taiwan's new artistic frontiers.

12 Focus

Investing in Wisdom

As Taiwan fast-forwards toward becoming a "super-aged" society, NTNU is at the forefront of research, policy, and practice to ease the societal shift by engaging the aging population through continuing education, technological upskilling, and intergenerational engagement.

Regulars

02 President's Message

03 Contents

11 Distinguished Alumni

17 Campus Life

18 NTNU Connects the World

ON THE COVER:

The ultra-modern NTNU Art Museum complements the University's two other arts-oriented exhibition spaces, serving as a platform to showcase art and design while offering students valuable opportunities to present their work and gain practical experience in curation, exhibition, and art preservation.

Research Spotlight

Transforming Aging Wellness

NTNU researchers explore innovative interventions to enhance cognitive, physical, and emotional vitality in older adults.

Keys to Brain health: Sleep and Move more

Yung Liao
Graduate Institute of Sport, Leisure and Hospitality Management

How do 24-hour movement behaviors—physical activity, sedentary time, and sleep—affect cognitive performance in older adults? Accelerometers tracked the activities of 213 participants aged 65+, and cognitive function was assessed using the Mini-Mental State Examination (MMSE). Results showed that increased light physical activity improved cognitive function, while longer sleep was associated with poorer outcomes. Replacing 30 minutes of sedentary time or sleep with light physical activity enhanced orientation, attention, language, and short-term memory, whereas moderate-to-vigorous activity did not yield the same benefits. These findings suggest that promoting light physical activity can support cognitive health and reduce dementia risk in older populations. (Lai TF, Chang CC, Hsueh MC, Koohsari MJ, Shibata A, Liao Y*, Oka K. "Associations of 24-h movement in Examining effect of Replacing SB with PA/Sleep on the cognitive function in older adults."*Geriatric Nursing* 2024: 59:60-66.)

Too Old to Push Limits? Exceeding Exercise Guidelines Reduces Sarcopenia Risks

Shao-Hsi Chang
Department of Physical Education and Sport Sciences

A survey of 1,068 Taiwanese adults aged 65 and older examined the link between physical activity and sarcopenia, a condition that causes muscle weakness with age. Using the IPAQ-SF to measure activity levels and the SARC-F questionnaire to assess risk, the study found that older adults who exercised less than 150 minutes per week—the minimum recommended by the World Health Organization (WHO)—were over three times more likely to develop sarcopenia. On the other hand, those who exceeded 300 minutes of weekly activity significantly reduced their risk. Moderate-intensity exercise, such as brisk walking, proved the most effective for both men and women. The findings suggest that going beyond the WHO's activity guidelines could play a key role in preventing sarcopenia and maintaining muscle health in older adults. Further research should investigate the potential added health benefits of surpassing these recommendations. (Tsai, C.-H., Liao, Y., & Chang, S.-H. (2024). "Cross-sectional association of physical activity levels with risks of sarcopenia among older Taiwanese adults."*BMC Geriatrics*, 24, Article 560.)

Social Media: A Lifeline for Seniors, But a Trap for the Shy

Ya-Ling Wang
Department of Adult & Continuing Education

How does age and shyness influence the relationship between social media use and loneliness? In a study of 234 participants in Northern Taiwan, including 113 college students and 121 older adults, hierarchical regression analysis revealed that social media use significantly reduced loneliness in older adults but had little effect on younger individuals. Additionally, higher levels of shyness were linked to increased loneliness with greater social media use. These findings suggest that while social media can alleviate loneliness for older adults, it may worsen feelings of isolation in those who are more shy, emphasizing the complex impact of social media on well-being. (Wang, Y.-L., Chen, Y.-J., & Liu, C.-C. (2024). "The relationship between social media usage and loneliness among younger and older adults: The moderating effect of shyness." *BMC Psychology, 12*, Article 343.)

Exercise boosts cognitive function, even for those at genetic risk for Alzheimer's!

Yu Kai Chang
Department of Physical Education and Sport Sciences

Exercise boosts cognitive function—even for those with a genetic risk for Alzheimer's! While physical activity is known to benefit brain health, its effects on individuals with the APOE ε4 gene, a key genetic risk factor for Alzheimer's disease (AD), are less clear. In a study of 51 healthy adults (~36% APOE ε4 carriers), participants completed a Stroop cognitive test at rest and after three different exercise sessions, with brain activity monitored via EEG. The results revealed that acute exercise improved cognitive performance and brain function across all participants, regardless of exercise intensity, duration, or genetic risk. These findings suggest that exercise could serve as a simple and effective way to boost cognitive health and potentially delay cognitive decline, even for those most vulnerable to AD. (Chang, Y.-K., Etnier, J. L., Li, R.-H., Ren, F.-F., Ai, J.-Y., & Chu, C.-H. (2024). "Acute exercise effect on neurocognitive function among cognitively normal late-middle-aged adults with/without genetic risk of AD: The moderating role of exercise volume and APOE genotype." *The Journals of Gerontology: Series A, 79(2)*, glad179.)

Interactive Robots Boost Health Literacy in CKD Patients

Jong-Long Guo
Department of Health Promotion and Health Education

A recent study evaluated a 12-unit virtual health coaching program delivered through interactive robots to improve health literacy and disease knowledge among patients with chronic kidney disease (CKD). The program covered key topics, including prevention, lifestyle adjustments, dietary intake, and medication management, with sessions lasting 20–30 minutes. Data from an experimental group of 30 participants showed significant improvements in communicative ($P = .01$) and critical literacy ($P = .02$) and CKD-specific knowledge ($P < .001$), particularly in medication management, compared to the comparison grouP. No significant changes were observed in functional literacy or dietary knowledge. Researchers noted that this technology-assisted approach could address gaps in CKD education and support scalable patient empowerment tools. The study highlights the potential of interactive robots in clinical nephrology, despite limitations such as a small sample size due to COVID-19 constraints. (Chen, N.-J., Chang, C.-H., Huang, C.-M., Lin, F.-H., Lu, L.-T., Liu, K.-Y., Lai, C.-L., Lin, C.-Y., Hou, Y.-C., & Guo, J.-L. (2025). "Assessing the effectiveness of interactive robot-assisted virtual health coaching for health literacy and disease knowledge of patients with chronic kidney disease: Quasiexperimental study." *Journal of Medical Internet Research*, 27, Article e68072.)

Attitudes on Aging: The Key to Well-Being

Te-Yung Chang, Chun-Yu Kuo
Department of Adult & Continuing Education

As the global population ages, promoting well-being among older adults is increasingly important. This study explores how satisfaction of basic psychological needs, aligned with self-determination theory, impacts well-being through affective mediation and the influence of aging perceptions. Data from 818 older adults were analyzed, focusing on their psychological needs satisfaction, positive and negative affect, well-being, and attitudes toward aging. Controlling for age and physical health, results showed that fulfilling psychological needs boosts positive affect, reduces negative affect, and enhances overall well-being. Aging self-perceptions significantly moderated these effects, highlighting individual variability. These findings have practical implications for gerontological education and strategies to engage older adults effectively. (Kuo, C.-Y., & Chang, T.-Y. (2023). "The impact of basic psychological needs satisfaction of the elderly on well-being: A moderated mediation analysis of affect and aging self-perceptions." *Educational Gerontology,* 49(6), 340–351.)

Brushstrokes and Breakthroughs

NTNU Museum Connects Legacy with Vision

Situated on NTNU's historic campus, the NTNU Art Museum seamlessly merges tradition and contemporary design with its striking titanium-clad structure, featuring a façade of 192 unique triangular panels inspired by the geometric motifs of NTNU's Fine Arts building. This modern design contrasts with the university's four city-designated historic monuments, while red-brick accents ground it in NTNU's architectural heritage. The aesthetics reflect NTNU's dedication to preserving its legacy while advancing education.

Inside, the seven-story museum houses exhibition halls, conservation laboratories, classrooms, and multifunctional spaces. Inspired by the rhythm of musical notes, the interior creates a creative and interdisciplinary atmosphere. Eric Liu, the museum's director, explains, "Our niche lies in preserving and showcasing works by alumni and exploring the future of art through technology." Serving as both a teaching and exhibition space, the museum strengthens connections within the NTNU community and contributes to global discussions on art and innovation.

NTNU's expertise in conserving artworks at the Research Center for Conservation of Cultural Relics led to academic partnerships, including an MOU with the Ecole du Louvre in 2023 and a recent agreement with the National Palace Museum in December 2024.

Teh-Chun Art Gallery, located on the ground floor and basement of the Fine Arts Building, hosts professional and student experimental exhibitions.

Beyond the Museum: Spaces that Inspire Creativity

The NTNU Art Museum is the latest addition to the university's vibrant network of artistic venues, joining the Teh-Chun Art Gallery and the Taiwan Design Corner. These spaces serve as invaluable teaching resources, blending heritage and modernity to enhance NTNU's educational mission.

The Teh-Chun Art Gallery, housed within the Department of Fine Arts building, spans 400 square meters and provides space for student exhibitions and hands-on training. Renamed in 2009 to honor alumnus Teh-Chun Chu, a pioneer in abstract painting, the gallery bridges academic theory with public engagement, nurturing the next generation of Taiwanese artists.

Similarly, the Taiwan Design Corner showcases NTNU's innovative integration of historical preservation and contemporary education. Located in a renovated Japanese-era professor's dormitory, it features a curated collection of Eastern and Western design artifacts, including traditional Chinese tools and Bauhaus icons. This venue stands as a testament to NTNU's commitment to merging heritage with forward-thinking education.

While students are the primary focus of these spaces, the museum also collaborates with external groups for functions and exhibitions. Director Eric Chien-Cheng Liu emphasizes that such partnerships must align with NTNU's reputation, requiring events to be of exceptional interest, provide free admission to the university community, and adhere to non-commercial principles.

From Tradition to Transformation: NTNU's Art Education Legacy

Since its founding in 1947, NTNU's Department of Fine Arts has played a pivotal role in shaping Taiwanese art education. As Taiwan's first university-level art school, the department has trained generations of educators and artists who have profoundly influenced Taiwan's cultural history. Notable alumni include Shan-Hsi Cheng, a modern ink painting pioneer, and Yang-Tze Tong, whose calligraphy is currently featured at New York's Metropolitan Museum. Esteemed faculty such as Chun-Pi Huang and Shih-Chiao Lee have mentored some of Taiwan's most influential artists, while alumni lead major cultural institutions like the National Palace Museum and the National Taiwan Museum of Fine Arts.

Offering degrees from bachelor's to doctorates, the department equips students with state-of-the-art facilities, including plaster statues from the Louvre and high-resolution scanners. Its upcoming Executive Master of Arts Management (EMAM) program reflects NTNU's commitment to preparing graduates for leadership roles in the arts.

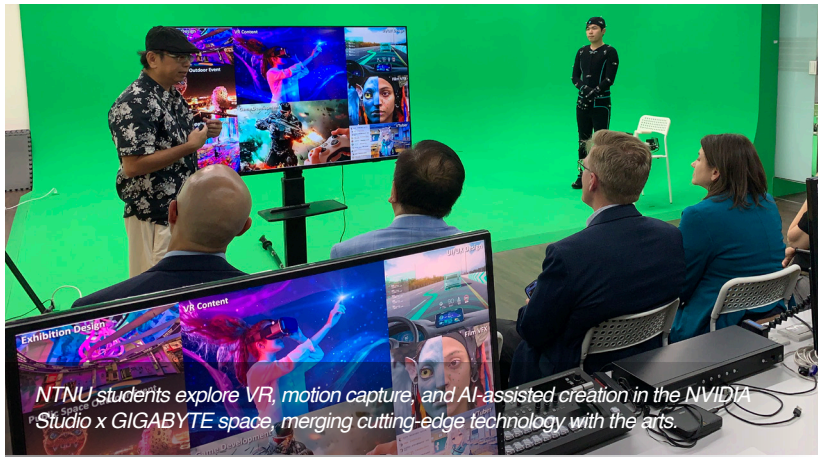
Graduates excel in diverse disciplines, from traditional ink painting to contemporary media. Interdisciplinary programs further enrich the curriculum, merging art, science, and technology. Initiatives like the Graduate Institute of Interdisciplinary Innovation encourage students to address contemporary challenges through creative problem-solving, ensuring NTNU's graduates remain at the forefront of their fields.

Innovating Art Through Technology

"At NTNU, we equip students with emerging technologies and encourage their integration into creative processes," says Professor Hsin-Chien Huang, an internationally acclaimed leader in interactive art and storytelling. Winner of the Best VR Experience Award at the Venice Film Festival in 2019, Huang emphasizes that this cross-disciplinary approach "will fundamentally transform how we create and experience art."

The Metaverse Motion Capture Laboratory, also known as the NVIDIA Studio x GIGABYTE Collaboration Space, exemplifies NTNU's integration of cutting-edge technologies into the arts. Here, students delve into virtual reality, motion capture, and AI-assisted creation, advancing the boundaries of artistic expression in applications such as gaming, digital content creation, and sports analytics.

The NTNU Art Museum's Stage of Light, developed under the Ministry of Education's Advanced Display Technology Project, showcases NTNU's integration of technology into the arts. This interactive exhibition space has featured



NTNU students explore VR, motion capture, and AI-assisted creation in the NVIDIA Studio x GIGABYTE space, merging cutting-edge technology with the arts.

The spaces at the NTNU Museum are particularly suited to presenting tech art, such as the interactive Rice Dragon 360 that was shown as a part of Nuit Blanche 2024.

works such as *The Machine's Eye* and *Rice Dragon 360*, a multimedia piece inspired by traditional Hakka rituals. *Rice Dragon 360* was part of Nuit Blanche 2024, connecting NTNU's artistic endeavors with an international audience and demonstrating how cultural heritage and modern technology intersect.

Exhibitions Bridging Technology and Creativity

"The scale and layout of the exhibition spaces at NTNU Museum are particularly suited to highlighting tech art," said Museum Director Eric Chien-Cheng Liu. "This interdisciplinary direction also aligns with NTNU's transformation into a comprehensive university."

Last April, the museum debuted *The Polaroid Project: At the Intersection of Art and Technology*, exploring technology's role in shaping artistic narratives with works by Andy Warhol, Ansel Adams, and others. This autumn, the museum will present a tech art exhibition curated by Professor Saiau-Yue Tsau, showcasing over 20 works by EU and Taiwanese new media artists, including Refik Anadol's *Renaissance Dreams* and *Bi0film*.net by Hsu Jung and Natalia Rivera.

Sponsored by corporate partners such as Nvidia, Meta, and VitArt, the exhibition will explore themes of local and global culture, future aspirations, and the interplay between the virtual and real. Through digital visuals, VR, and interactive installations using AI, 5G, and XR technologies, the exhibition showcases the museum's exploration of technological art.

In addition to its focus on technology-driven exhibitions, Professor Liu envisions enhancing the visitor experience through the addition of a gift shop featuring alumni designs and a museum café in collaboration with a Michelin-starred chef. These planned additions aim to establish the museum as both an academic resource and a vibrant cultural destination.

Guardians of Taiwan's Cultural Heritage

The NTNU Art Museum's permanent collection offers a rare glimpse into the early works of Taiwan's master artists, many created during their student years at NTNU. These works document their artistic growth and offer insights into Taiwanese art history. The collection includes works by Shan-Hsi Cheng, Hui-Kuhn Chen, and Yang-Tze Tong, whose distinctive styles shaped the trajectory of Taiwanese artistic traditions.

Preserving these treasures is a collaborative effort, led by senior conservators in the Research Center for Conservation of Cultural Relics (RCCCR), with students specializing in conservation actively participating as part of their training. Combining artistic skill with advanced conservation science technologies such as Raman spectroscopy and infrared analysis, the senior conservators and students work together to stabilize and restore these significant works. Their involvement goes beyond technical skill, requiring an understanding of Taiwan's sociocultural history and context.

RCCCR's influence extends beyond Taiwan through its contributions to international conservation science. As the only Asian university represented in the Infrared & Raman Users Group (IRUG) pigment database, NTNU advances global art conservation efforts by participating in pioneering research and sharing its expertise worldwide. Their expertise, particularly in the conservation of artworks, recently led to a partnership with the École du Louvre, with whom the institutions signed a memorandum of understanding (MOU) in 2023 for academic cooperation and a student exchange agreement. This collaboration exemplifies NTNU's dedication to bridging Taiwanese and global conservation practices.

Locally, NTNU has deepened its partnership with the National Palace Museum through an MOU in December 2024 that establishes internship opportunities in the

Museum Director Eric Chien-Cheng Liu says plans are in the works for a major tech art exhibition this year, along with a museum shop and café to enhance visitor experiences.

museum's conservation studios and provides graduate conservation students, including international participants, with access to guided training and coursework on cultural heritage preservation. The collaboration aligns with NTNU's new EMAM program, which incorporates the study of National Palace Museum artifacts into its curriculum.

RCCCR Director Professor Yuan-Feng Chang emphasizes that educating the public about the art conservation process inspires a deeper appreciation for Taiwan's rich artistic history and encourages stewardship for preserving this priceless heritage. She addressed a common misconception, explaining that the role of conservators is not to "repair" or restore a work to its original state. "The conservator's role is to stabilize the work to ensure its continuity while preserving its historicity," she explained. "Conservation does not erase a work's historical traces. Any areas added must be identifiable and retreatable, allowing future conservators to continue preserving the original elements."

To engage the public with this process, RCCCR collaborates with the NTNU Art Museum to curate permanent open conservation exhibitions on the museum's fourth floor.

These events offer visitors a firsthand view of the intricate science and artistry involved in conservation, enriching their understanding of cultural preservation.

Through these efforts, NTNU safeguards its artistic legacy while offering students unique opportunities to work with historically significant pieces. This hands-on experience prepares them to excel in the field of art conservation, reinforcing NTNU's leadership in cultural preservation.

Heritage, Innovation, and Impact

The NTNU Art Museum reflects the university's commitment to preserving cultural heritage while embracing innovation. Through interdisciplinary programs, technological initiatives, and dedication to conservation, the museum bridges Taiwan's artistic traditions with contemporary global practices. As it evolves, plans to enhance visitor engagement and expand offerings underscore its role as both an academic resource and a cultural institution that connects the university with the broader community. NTNU bridges Taiwan's artistic traditions with contemporary global practices, contributing to ongoing dialogues in art and technology.

RCCCR Director Professor Chang explains that conservation focuses on stabilizing a work rather than restoring it to its original state.

Housed in a former Japanese-era professor's dormitory, Taiwan Design Corner showcases Eastern and Western design artifacts.

In NTNU Museum's permanent collection are masterpieces donated by famous alumni artists and their student-era works.

An immersive and interactive exhibition at the Museum's Stage of Light brings a classical brush and ink painting to life.

Distinguished Alumni

Immersive Landscapes

Marlene Tseng Yu's Artistic Ode to the Beauty of the Natural World

Q&A

Profile in Brief

*Distinguished Alumna **Marlene Tseng Yu** is a pioneering Taiwanese-American artist whose expansive canvases merge Eastern and Western styles to capture the beauty and fragility of nature while addressing environmental issues. A champion of sustainability since the 1960s, Yu has received numerous accolades, including the Highest Honor in Cultural Pioneer Award from New York City and the Lifetime Achievement Award from the University of Colorado. Now in her late 80s, she reflects on her artistic journey and the enduring role of art in fostering environmental awareness*

Marlene Tseng Yu

How did your education and experiences at NTNU shape your artistic journey?

NTNU gave me a solid foundation in traditional Chinese brush painting, teaching harmony and balance that still shape my work. While earning my MFA at the University of Colorado at Boulder, I explored Abstract Expressionism, adding boldness and spontaneity to my art. Combining Eastern subtlety and Western intensity helped me convey nature's energy and urgency, balancing its serenity with its raw power. Teaching art and serving on Denver University's Advisory Committee further strengthened my dedication to artistic exploration and mentorship.

How has your approach to depicting nature evolved?

Nature's endless forms and colors have always inspired me. From the vastness of horizons to the intricacies of microscopic forms, I strive to capture the universe's rhythms, movements, and moods. I began with realism but transitioned to abstraction to convey nature's spirit more freely. Over my career, I've completed more than 4,800 paintings, evolving from explorations of form and texture into subtle calls for awareness about global warming—long before these issues were widely recognized.

You've been active in environmental art since the 1960s, long before sustainability became a global priority. What inspired this focus so early in your career?

My connection to nature has always been central to my work. Even in the 1960s, I sensed the fragility of the environment and felt a need to draw attention to it. My "Glacier Melting Series," which began in 1965, reflected this concern—exploring the beauty of glaciers while also serving as an early warning about the effects of global warming. Over time, I expanded my focus, and in 2001, I founded the Rainforest Art Foundation (RAF) in New York City to unite nature-inspired artists and promote the environmental green movement in art. RAF has since grown globally, with offices in Shreveport, Zurich, Brussels, Vienna, and soon Frankfurt, creating a platform for dialogue and collaboration. In 2014, I opened the Marlene Yu Museum in Shreveport, Louisiana, to preserve my works and inspire deeper conversations about the environment. My hope is that both my art and the foundation inspire people to cherish and protect our planet.

Why do you choose to work on such large canvases?

Large canvases immerse viewers in the landscapes I create, surrounding them with the textures and movements of nature. This scale conveys the grandeur and urgency of the natural world while reminding us of our responsibility to it. Though demanding, the process is incredibly rewarding, and I hope these works inspire a deeper connection to the environment.

What keeps you motivated after almost 60 years of painting?

The universe is endlessly inspiring. Each day brings new patterns, moods, and colors. I also feel a sense of responsibility—to both capture the beauty of nature and encourage its preservation. My work may not solve environmental problems, but if it helps one person see the world differently, it's worth it. I hope my efforts in the "Environmental Green Movement" show that art can be both timely and timeless.

"With 70 paintings and a dream, I stepped into New York's art scene in 1968, not knowing where it would lead."

Investing in Wisdom

How Taiwan Is Reimagining the Future of Aging

By 2025, Taiwan will become a "super-aged" society, with more than 20% of its population over the age of 65. This demographic shift is happening faster in Taiwan than in many other parts of the world, driven by one of the lowest birth rates globally—1.1 children per woman—and increasing life expectancy. In comparison, countries in the European Union are expected to reach this milestone closer to 2030 or later. Taiwan's rapid aging presents significant challenges for healthcare, economic productivity, and social welfare, reflecting similar trends in neighboring Japan and South Korea.

In response, Taiwan is investing in lifelong learning programs to help older adults remain active contributors to society. This approach contrasts with more care-focused models seen elsewhere, positioning education as a core strategy to support economic growth, improve mental and physical health, and strengthen intergenerational connections.

NTNU, recognized internationally for its contributions to education research and gerontology, plays a critical role in shaping Taiwan's lifelong learning policies and senior education programs. Through initiatives aimed at engaging seniors and fostering community involvement, NTNU offers valuable models for societies addressing the challenges of aging populations.

Since 2018, and continuing through the pandemic, integrated intergenerational theater productions have been held annually as part of the award-winning "Together with Arts" community-based musical initiative, conducted by the NTNU Center for Holistic Education.

The 2024 NTNU Seniors Dream Market featured 100+ booths focused on senior fitness, mental health, creativity, and digital literacy. Highlights included continuing education, performing arts, and art workshops. Part of NTNU's USR Stage 2, the event brought together public and private partners, with students and partner universities hosting activities and information booths.

The Power of Education in Aging Communities

Taiwan's strategy for supporting its aging population revolves around the concept of "active aging" — a framework endorsed by the World Health Organization that emphasizes health, participation, and security. However, Taiwan's approach, grounded in the Lifelong Learning Act, recognizes the potential for growth and contribution well before traditional retirement age, reflecting a philosophy of "life without retirement."

A key figure in this movement is Professor Te-Yung Chang, a leading expert in adult education and senior learning programs in Taiwan. Chang has been instrumental in developing lifelong learning policies, working with diverse communities—including outlying islands like Matsu—and shaping initiatives to expand educational access to seniors aged 55 and above.

Chang explains that senior education enhances older adults' lives by motivating them through productive engagement. He describes this form of education as a "community-based lifelong learning journey" that intertwines personal growth with collective well-being.

By focusing on self-directed learning and individual agency, Taiwan's senior education model moves away from conventional top-down approaches, encouraging seniors to actively shape their lives and contribute meaningfully to their communities.

Professor Hsiu-Lan Shelley Tien, Dean of NTNU's College of Education and an expert in career counseling and workforce development, emphasizes the economic significance of senior engagement. She notes that Taiwan's older generation, particularly those who experienced the 1980s economic boom, remain highly educated and eager to contribute to society beyond retirement.

This shift toward personal growth and productivity is a core part of Taiwan's strategy to keep older populations engaged, extending careers and fostering social participation well beyond retirement.

"Our aging population is not a crisis; it's an opportunity to redefine what it means to grow older."

— NTNU Vice President Yao-Ting Sung

NTNU's Digital Health Ambassadors train seniors in digital literacy, covering internet safety, fraud prevention, social media, travel health, online shopping, management, and generative AI.

A pivotal figure in shaping Taiwan's adult education policies since 1998, professor Te-Yung Chang led NTNU's 2021 Learning Society White Paper, the foundation for Taiwan's lifelong learning plan.

NTNU's initiatives, such as the LOHAS EMBA (Executive MBA for Senior Learners), reflect this philosophy by equipping older adults with the skills to re-enter the workforce, mentor younger generations, or pursue new business ventures. Chang emphasizes that older adults bring decades of valuable experience that can be harnessed for entrepreneurship, mentorship, and leadership in their communities.

> ***"If we don't act now to prepare our society economically, socially, and culturally, we risk leaving a significant portion of our population behind."***
>
> ***— Professor Te-Yung Chang***

Addressing Regional Disparities

Taiwan's senior education initiatives are designed to meet the diverse needs of urban, rural, and outlying island populations. In regions such as Matsu, programs utilize a "home delivery" learning model that brings education directly to seniors through in-person visits or online sessions. Professor Chang highlights the importance of tailored educational content that reflects the cultural and economic realities of each community.

"We consider demographic factors, regional characteristics, and age distribution when designing programs. This ensures that courses are both relevant and accessible," he says. A blend of in-person classes and online learning platforms helps bridge the urban-rural divide, ensuring equitable access to education.

To further improve access, Chang has continued to help regional centers develop a "Learning Map of Taiwan," a centralized online platform designed to help older adults locate educational opportunities in their area. Despite the platform's potential, challenges persist in keeping local programs regularly updated and accessible, particularly for smaller or resource-constrained communities.

NTNU's Leadership in Lifelong Learning

NTNU's leadership extends to policy development, with key contributions to the Learning Society White Paper and the Mid-Term Development Plan for Lifelong Learning. These initiatives reflect the university's commitment to expanding educational access for seniors and promoting lifelong engagement.

Professor Chang highlights this commitment, noting that the white paper established the foundation for expanding lifelong learning, creating pathways for those who had previously left formal education to re-engage and continue developing new skills at any age.

NTNU's initiatives, such as the Senior Citizen Digital Inclusion Academy, further demonstrate the university's focus on equipping older adults with essential digital literacy skills and online safety. These programs help seniors access telemedicine, manage their health, and stay connected with their communities.

"We are empowering seniors to take charge of their health," explains Associate Professor Ya-Ling Wang at NTNU's Department of Adult and Continuing Education. "It's not just about technology—it's about independence and dignity."

Building Intergenerational Connections

Education can also bridge generational divides by fostering intergenerational learning environments. As the director of the Aging Smart Lab (ASLAB), Professor Wang leads initiatives that bring college students and seniors together, fostering mutual respect and shared learning experiences.

Wang's programs emphasize equality between participants, integrating local community characteristics and technology to promote engagement. She explains, "This isn't about young people helping old people. It's a two-way street where students learn empathy, patience, and respect, while seniors gain confidence and digital fluency."

Another NTNU initiative, held since 2018, is the Seniors Dream Market. Over 1,300 seniors attended the event in 2024, where students, community, and public and private service providers conducted workshops, performances,

Professor Tien says that while many of the generation that benefited from the 1980s boom in Taiwan do not need to work, some actively seek ways to contribute their expertise – challenging traditional retirement norms.

Through community workshops like therapeutic gardening and a range of counseling services, NTNU's Hsin-Tien Counseling Clinic promotes emotional well-being to the stresses of aging and caregiving.

At NTNU's Aging Smart Lab, intergenerational programs succeed by reflecting neighborhood characteristics, integrating technology, and fostering equality between generations.

Associate Professor Ya-Ling Wang notes that Confucian generational hierarchy challenges mutuality and reciprocity in intergenerational learning.

and collaborative activities that promote digital literacy, creativity, and mental well-being for seniors.

Through initiatives like these, NTNU continues to promote stronger intergenerational connections, reinforcing the value of shared learning experiences in creating inclusive, engaged communities.

Economic and Social Returns

Lifelong learning not only supports social well-being but also serves as a strategic economic measure to reduce healthcare costs, mitigate isolation, and boost workforce participation.

Professor Tien emphasizes that engaging older adults through education and re-employment is vital for sustaining economic stability, explaining that "Educating older adults is not just an economic strategy—it's a necessity."

As a specialist in career counseling, occupational psychology, and workforce development, Tien has conducted extensive research on workforce challenges faced by middle-aged and elderly populations. She stresses the need for greater collaboration between industry and academia to create re-employment pathways.

Programs such as the NTNU LOHAS EMBA provide seniors with opportunities to re-enter the workforce or explore entrepreneurship, helping to alleviate labor shortages by tapping into the experience and skills of older adults.

NTNU's involvement in the Taipei Citizen Digital Service Project initiative further demonstrates the tangible impact of senior education, showing a 50% improvement in seniors' digital skills. This initiative has helped reduce isolation by enhancing seniors' ability to engage with technology, promoting greater independence and social connectivity.

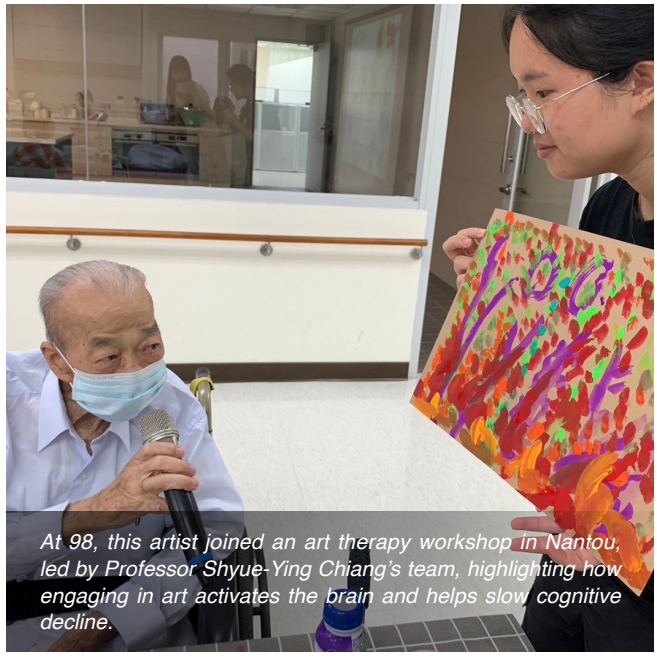
A Model for Aging Societies

Taiwan's approach to preparing for a super-aged society offers potential strategies for countries addressing aging populations. NTNU contributes significantly to ongoing efforts, contributing research, policy development, and innovative programs that promote lifelong learning and intergenerational engagement. As a leading institution in education and gerontology, NTNU's interdisciplinary initiatives—combining education, technology, and health—position it as a key driver in shaping Taiwan's response to demographic change. These efforts not only support healthier, more engaged communities at home but also offer potential models for aging societies globally.

As NTNU Vice President Yao-Ting Sung notes: "Our aging population is not a crisis; it's an opportunity to redefine what it means to grow older."

"This isn't about young people helping old people. It's a two-way street where students learn empathy and respect, while seniors gain confidence and digital fluency."

— Associate Professor Ya-Ling Wang



At 98, this artist joined an art therapy workshop in Nantou, led by Professor Shyue-Ying Chiang's team, highlighting how engaging in art activates the brain and helps slow cognitive decline.

The Hues of Healing

Dr. Shyue-Ying Chiang

Faculty of Fine Arts

Dr. Shyue-Ying Chiang, an adjunct associate professor in the Department of Fine Arts at NTNU, is a recognized leader in the field of art therapy. Recipient of the 2023 NTNU Outstanding Teaching Award, Dr. Chiang has made significant contributions to the integration of art therapy into both academic and clinical settings, as well as to the broader discourse on the intersections of art, education, and mental health.

Her journey in art therapy began during her time as a junior high school teacher. Observing the potential of art to support emotional regulation and self-expression, she was particularly inspired by an incident with a disruptive but artistically inclined student, who found focus and calm through creative activity. This early experience became a foundation for her future exploration of art as a therapeutic tool.

Recognizing the limited availability of art therapy education in Taiwan at the time, Professor Chiang pursued advanced studies in New York University. There, she trained under Edith Kramer, Laurie Wilson and Ikuko Acosta. As a pioneer in the establishment of art therapy as a profession, Kramer's frameworks, emphasizing art as both a therapeutic tool and an expressive medium, deeply influenced Dr. Chiang's practice. Her studies were further enriched by the pioneering work of Liona (Ya-Ching) Lu, Taiwan's first art therapist, whose efforts helped introduce the discipline to Taiwanese academic and clinical settings.

Returning to Taiwan, Dr. Chiang became instrumental in advancing art therapy as an academic field and in professional training, particularly in education. At NTNU, she teaches courses in the Department of Fine Arts and the Department of Counseling, broadening students' professional perspectives and laying the groundwork for future programs in creative therapy. Her practical work has focused primarily on children and adolescents, with more recent efforts involving adult populations. Additionally, she has collaborated on community-based projects, such as art workshops for elderly residents in Nantou, working alongside local educators dedicated to senior art education.

In addition to her practical contributions, Dr. Chiang is conducting a longitudinal study on the career trajectories of veteran artists. This research examines the role of talent, mentorship, and opportunity in shaping professional success. The findings not only contribute to academic discourse but also serve her mission of providing effective career counseling to visual arts students. By understanding the factors that enable artists to thrive, she aims to prepare her students for diverse career paths while advocating for curriculum enhancements that reflect the realities of the art profession. This work supports her broader vision of equipping NTNU's art school with a more comprehensive and robust set of course offerings.

> **"Art is therapeutic because it is tactile, corporeal, and non-verbal. It creates a direct path to expression that technology, while useful in certain contexts, cannot fully replicate."**

Dr. Chiang has also critically examined the role of technology in art therapy. While acknowledging its value in specific contexts, such as for cancer patients or others unable to use traditional art materials, she also emphasizes its limitations. "Art is therapeutic because it is tactile, corporeal, and non-verbal," she notes. "When you introduce a technological interface, it adds another filter that separates the individual from the immediacy of expression." This balanced perspective ensures the core principles of art therapy remain intact while adapting to practical constraints.

In her teaching, Dr. Chiang emphasizes the importance of experiential learning and adaptability. She regularly engages students in workshops that challenge their comfort zones, such as recent ceramics projects that required participants to navigate unpredictable outcomes. These experiences foster resilience and adaptability, essential skills for both artistic practice and broader professional contexts.

Her research and publications, including 100 Applications of Art Therapy Cards and a Chinese-language book on the application of life narrative picture books in art therapy, offering practical insights into the implementation of art therapy across various settings. She has also translated foundational texts, such as Edith Kramer's Art as Therapy with Children, making seminal theories accessible to Taiwanese audiences.

Dr. Chiang's career reflects a rigorous and reflective approach to integrating art into education and mental health. By combining theoretical insight with practical application, she has advanced the field of art therapy in Taiwan and beyond. Her work continues to influence students, practitioners, and researchers, deepening understanding of the transformative potential of art.

President Wu (third from left) with faculty and students visiting Osaka University, October 2024.

Assistant Director Haochen Li (far left) and Executive Director Cheryl Dumaresq (second from left) from the University of British Columbia's Office of Global Engagement at NTNU, January 2024.

NTNU Connects the World

2024 Global Vision

Advancing Partnerships with Ten Key Institutions

Dr. Enrico Schleiff, President of Goethe University Frankfurt (left), at NTNU, March 2024.

In 2024, NTNU expanded its global footprint by deepening relationships with key partner universities across North America, Europe, Asia, and Oceania. These collaborations advanced cultural exchange, fueled innovative research, and enriched learning opportunities, reflecting NTNU's commitment to a globally connected academic future.

Deepening North American Partnerships

NTNU strengthened connections with North American institutions through visits and collaborative initiatives. President Cheng-Chih Wu led a delegation to the University of British Columbia (UBC) in Canada, as well as Purdue University and the University of Texas at Austin (UT Austin) in the United States, focusing on student exchanges, joint research, and faculty development.

At UBC, discussions included expanding internships, summer programs, and dual-degree opportunities, along with exploring collaborative research in environmental sciences and linguistics. President Wu also addressed nearly 50 NTNU alumni at a Vancouver gathering, sharing updates and strengthening ties with the global alumni network.

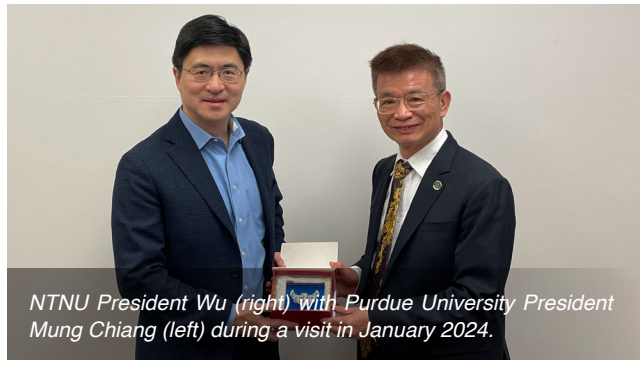
At Purdue University, NTNU continued its long-standing collaboration with renewed emphasis on engineering education and student-led initiatives. Purdue played a central role in NTNU's Huayu BEST Program, with students participating in immersive experiences in Taiwan, including Mandarin coursework, cultural workshops, and visits to historical landmarks. NTNU and Purdue also hosted STE(A)M workshops, combining STEM challenges with creative problem-solving, teamwork, and interdisciplinary learning. Plans to expand the workshops to cover sustainability and artificial intelligence are already underway.

At UT Austin, NTNU introduced Taiwan's first transnational English as a Medium of Instruction (EMI) training program, providing Taiwanese faculty with advanced teaching strategies through immersive on-site training. NTNU also partnered with UT Austin's Special Education Center to host U.S. students in Taiwan, giving them firsthand experience with Taiwan's inclusive education practices.

Strengthening European Partnerships

NTNU reinforced ties with its European partners, including Goethe University Frankfurt, University of Bordeaux, and

In June 2024, NTNU partnered with the University of Texas at Austin to launch a top-tier EMI teacher training program for Taiwanese educators.



NTNU President Wu (right) with Purdue University President Mung Chiang (left) during a visit in January 2024.

University of Glasgow, emphasizing academic exchange and collaborative research.

The partnership with Goethe University Frankfurt, established in 2016, has facilitated over 60 student exchanges. In March 2024, Rector Professor Enrico Schleiff visited NTNU to discuss cross-disciplinary research opportunities and invited NTNU faculty and students to collaborate at Goethe. In June, NTNU Vice President Frank Yung-Hsiang Ying led a delegation to Frankfurt, identifying research priorities in astrophysics, intelligent computing, sinology, and environmental humanities. The delegation also explored creating cross-disciplinary international courses to engage students from diverse fields.

In March, NTNU hosted the Taiwan-France Higher Education Leaders Forum, with participants from the University of Bordeaux and other French institutions. The forum focused on science, technology, language education, and talent development, providing a platform for advancing Taiwan-France academic collaboration.

Engagements with the University of Glasgow included participation in international forums and discussions on global education strategies, forming a strong foundation for future initiatives.

Expanding Collaborations in Asia and Oceania

In Asia, NTNU reinforced partnerships with Kyushu University and Osaka University in Japan and Hanyang University in South Korea. NTNU and Kyushu University collaborated through the Kyushu Okinawa Open University Alliance (KOOU), signing a five-year memorandum to support student mobility, faculty exchanges, and joint research. A four-day STE(A)M workshop in Taiwan brought together Kyushu and NTNU faculty and students to design interactive activities for younger learners, emphasizing creativity and cross-disciplinary collaboration.

NTNU also renewed agreements with Osaka University focusing on student exchanges and cultural programs. Meanwhile, a late-2023 engagement with Hanyang University laid the groundwork for expanded collaborations in 2024, particularly in campus internationalization and administrative innovation.

In Oceania, NTNU strengthened its partnership with the University of Queensland (UQ) in Australia through the Elite Athlete College (EAC). A seven-member delegation, led by Dean Chih-Fu Cheng, explored joint research, dual-degree programs, and enhanced training opportunities for student-athletes. During their visit, the delegation toured UQ's world-class sports facilities and discussed future training programs for athletes and coaches, furthering collaboration in sports science.

A Year of Growth and Global Impact

In 2024, NTNU engaged in training programs, academic exchanges, and research collaborations with ten key partner institutions. These efforts reflect our commitment to advancing education, fostering research, and addressing global challenges.

As we look to the Year of the Snake in 2025, we are guided by the wisdom, adaptability, and transformation this symbol represents, reaffirming our dedication to strengthening NTNU's global impact and advancing international education and research.

Dean Lewis, Vice-President of France Universités / President of University of Bordeaux spoke at the 2024 Taiwan-France Higher Education Leaders Forum at NTNU on March 11, 2024.

Dean Chi-Fu Cheng of NTNU's Elite Athletes College led a delegation to the Department of Sports Sciences at the University of Auckland in March 2024.

NATIONAL TAIWAN NORMAL UNIVERSITY

Center of Public Affairs

162, Section 1, Heping E. Rd., Taipei City 106, Taiwan

http://en.ntnu.edu.tw/

Online Version

Subscribe