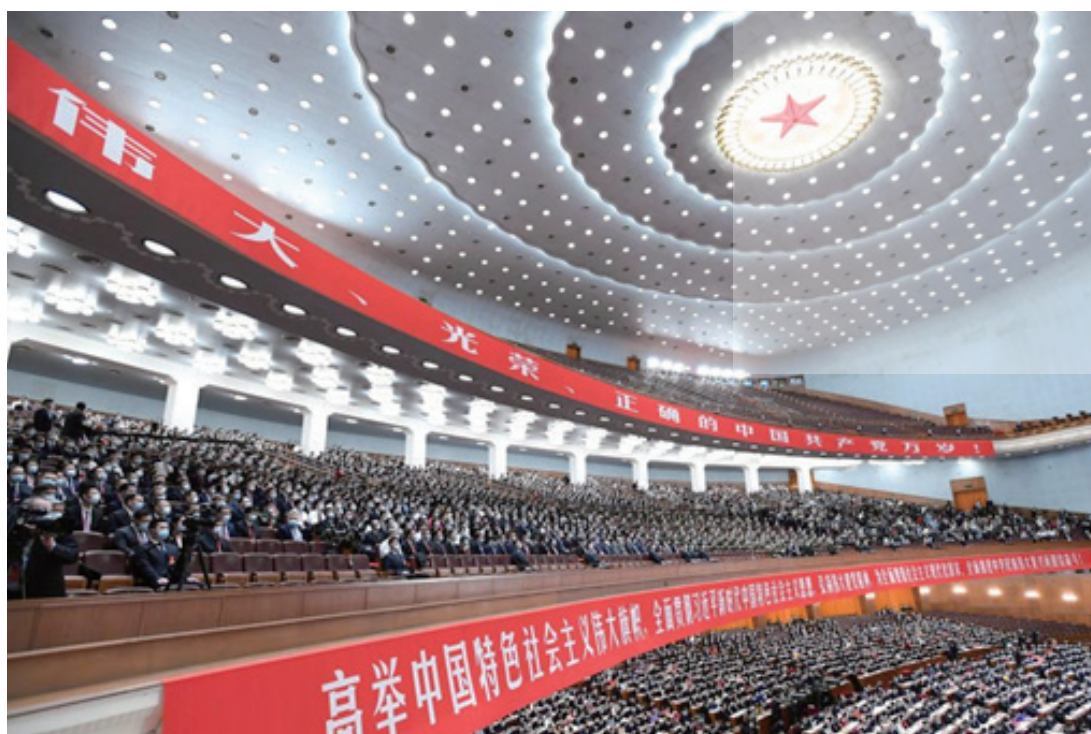


TSINGHUA 2022 ISSUE 4 NEWSLETTER



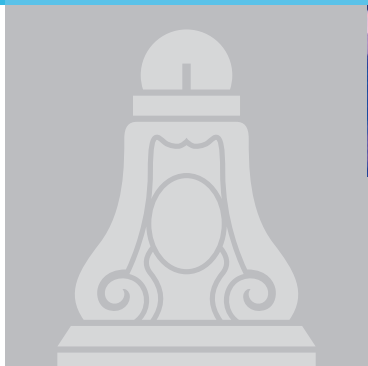
清华大学
Tsinghua University



P01 (CPC Congress) CPC opens 20th National Congress

P04 Multi-stakeholders from 6 continents co-initiate the Global Youth Climate Week

P06 Where China and the world are heading, and how we can help: Gen Z speak up



CONTENTS

FOCUS

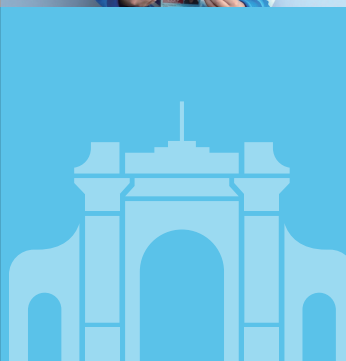
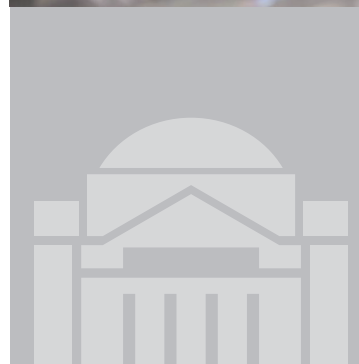
- P01 (CPC Congress) CPC opens 20th National Congress
- P04 Multi-stakeholders from 6 continents co-initiate the Global Youth Climate Week
- P06 Where China and the world are heading, and how we can help: Gen Z speak up
- P09 The 2nd World Health Forum opens
- P12 Chinese vice president meets Tsinghua University advisors

GLOBAL ENGAGEMENT

- P13 Forum on Global Disclosure Standard for Sustainability held in Beijing
- P16 AUA holds Online Education Fair 2022
- P17 Third Global Forum on Development of Computer Science held
- P19 G20 Entrepreneurship Roundtable 2022 opens
- P21 AUA holds Executives' Meeting 2022 in Al Ain, UAE
- P22 1st Tsinghua Higher Education Forum explores new role of universities in a changing world
- P25 3rd International Forum on Engineering Education opens online

SCIENTIFIC INNOVATION

- P28 Soft robots take on hard work
- P30 Jijie Chai and collaborators publish an article entitled 'Plant receptor-like protein activation by a microbial glycoside hydrolase' in Nature
- P32 Wei Xie's group, Zi-Jiang Chen's group, and Han Zhao's group published research in Science on the identification of TPRXs as regulators of human zygotic genome activation using translome and transcriptome co-profiling
- P33 Dr. Li Zhenhua wins 2022 CCF-IEEE CS Young Computer Scientist Award
- P34 Tsinghua professors, associate professors win China Youth Science and Technology Award
- P34 CDEX collaboration carried out the first direct detection result on Dark Matter-electron interaction based on High Purity Germanium detectors
- P37 Plotting a course for realistic and equitable decarbonization



TSINGHUA COMMUNITY

- P39 Zhang Li wins 11th Liang Sicheng Architecture Prize
- P40 Tsinghua SEM Dean Bai Chong-En elected as president of AAPBS
- P41 Professor XU Xin wins AIS Fellow Award
- P42 Yuan Shu: Promoting sustainable development through the BRI
- P45 Ma Yaoyao: My 365 days mission in SDG5
- P47 Why do these Tsinghua students love football?

DIVERSE CAMPUS

- P49 Tsinghua holds creative contest for freshmen
- P50 Tsinghua holds young teachers' teaching competition
- P51 Tsinghua Southeast Asia Center Campus is launched in Bali, Indonesia
- P55 Advanced innovative research: Social-emotional intelligence I

SPECIAL THE 20TH CPC NATIONAL CONGRESS

- P57 Tsinghua students share views on 20th CPC National Congress
- P60 China's connectivity and inclusiveness resonate with the world: John Paul Grima
- P61 China's tremendous efforts in research and development will pay off: Patrice Monkam
- P63 China's contributions to world development will grow further: Maria Vula
- P65 China will promote building human community with a shared future: Temelidi Yulia
- P67 My China Story: A country filled with wonders
- P69 My China Story: A journey of doubts to a great discovery

FOCUS

(CPC Congress) CPC opens 20th National Congress

Xi Jinping delivered a report to the 20th National Congress of the Communist Party of China (CPC) on behalf of the 19th CPC Central Committee at the Great Hall of the People in Beijing, capital of China, Oct. 16, 2022.



Xi Jinping, Li Keqiang, Li Zhanshu, Wang Yang, Wang Huning, Zhao Leji, Han Zheng and Hu Jintao attended the opening session of the 20th National Congress of the Communist Party of China (CPC) at the Great Hall of the People in Beijing, capital of China, Oct. 16, 2022.





Li Keqiang presided over the opening session of the 20th National Congress of the Communist Party of China (CPC) at the Great Hall of the People in Beijing, capital of China, Oct. 16, 2022.



Multi-stakeholders from 6 continents co-initiate the Global Youth Climate Week



Over 100 institutions, organizations and networks from 6 continents jointly launched the Global Youth Climate Week on October 31.

Scheduled one week ahead of each UN Climate Change Conference, the Global Youth Climate Week (the Week) aims to contribute a mechanism for global climate governance by convening the climate actions of youth worldwide, to help them voice out their climate dedication together and to prepare them to take the lead in building a net-zero future shared by all.

The Week, which is proposed by Global Alliance of Universities on Climate (GAUC) to UNFCCC back in January 2022, was praised by the then UNFCCC Executive Secretary Ms. Patricia Espinosa as "an impactful contribution to the UNFCCC process." It has since gained support from leading international organizations such as UNESCO, Bloomberg, and the Rockefeller Foundation.

In order to maximize the effect of the Week and to engage broader society, GAUC called out for



co-initiators this September and received active responses from partners worldwide.

Within a month, over 100 co-initiators from 6 continents are on board to back the climate actions of youth, covering a large variety of backgrounds, including academic institutions & think tanks, renowned brands from private sector, media agencies, charities, international & regional organizations, NGOs, and civil society.



"The geological and industrial diversity of the co-initiators reflects the commitment from multi-stakeholders to conquering the climate challenge," said YANG Bin, the Chair of GAUC's Executive Committee and the Vice President of Tsinghua, one of the founding universities of GAUC. "That commitment is what the world needs in this critical time."



Lasting 5 days until November 4th, the inaugural Week featured diversified events organized by its co-initiators to offer different perspective for the youth to approach the challenge as well as the Global Youth Summit on Net-Zero Future, a youth-led event organized by the GAUC Global Youth Ambassadors to present their interdisciplinary approach to the challenge.

Where China and the world are heading, and how we can help: Gen Z speak up

Co-sponsored by Tsinghua University and China Daily, the Global Generation Z Forum 2022 was held at Tsinghua University on Nov 14. At the forum, members of Generation Z from more than 30 countries talked about their interpretation of what happened at the 20th National Congress of the Communist Party of China and on its significance to the world.

Qu Yingpu, publisher and editor-in-chief of China Daily, and Qiu Yong, secretary of the CPC Tsinghua University Committee and chairman of Tsinghua University Council, gave the opening speeches at the forum online. Wang Hao, deputy editor-in-chief of China Daily, Xiang Botao, deputy secretary of the CPC Tsinghua University Committee, Dong Xia, head of the International Liaison Department of the Central Committee of the Communist Youth League and others were present at the forum. Members of Generation Z from China, Russia, India, South Africa, France, Egypt, Georgia, and the United States attended the forum and delivered speeches.



Qu of China Daily said that in the report of the 20th National Congress, President Xi Jinping mapped out a blueprint for China's future and called on young people to blossom as they help to build China into a modern socialist country in all respects. The congress is directly and closely related to both Chinese and global youth, Qu said. He suggested that young people learn about the spirit of the 20th National Congress and put it into practice. He encouraged youth all over the world to promote the construction of "a community with a shared future for mankind" and encouraged young people to try to better understand China. They should visit more places in the country and present

to the world unbiased and truthful stories of China so as to promote exchanges and mutual learning among Chinese and other civilizations, he said.



Qiu said "a nation will prosper only when its young people thrive". The world of tomorrow will be better when global youth work together. Drawing on Xi's remarks on youth, he said Tsinghua University is devoted to supporting the cultivation of young people, creating a broader stage on which they can display their talents. He called on young people to discover and understand China and share China's experience with the rest of the world. He conveyed his hope that young people be the participant and narrator of world stories, and work tirelessly to build a community with a shared future for mankind.



At the forum, members of Generation Z talked of their thoughts on the 20th National Congress, on what they think the mission of the world's young is and on their hopes and aspirations for the future.



Liu Dibo, a Chinese studying in the School of Environment of Tsinghua University, told of his “friendship in generations” with Francesco Ricci Bitti, president of the Association of Summer Olympic International Federations, when Liu worked as a volunteer at the Winter Olympic Games and Winter Paralympic Games in Beijing this year. He referred to his friendship with Bitti as “a warm friendship born in the cold of the Winter Games”, and said it is the responsibility of every generation of Chinese youth to let the world know about the country’s culture.



Shamim Zakaria, from India, who is a journalist, said he once visited China’s countryside to immerse himself in rural life. He realized the profound meaning of the concept of “this country is its people; the people are the country”, he said, which was emphasized by President Xi in the report of the 20th National Congress. Countries should put aside differences and focus on commonalities and pass on their wisdom based on equality and mutual respect, he said. “I firmly believe that when we act for the greater good as young people, the effects will be felt for years to come.”



Nik Gu, a Russian studying international relations and one of the global student ambassadors at Tsinghua, said he had witnessed the rapid development and historic changes of China in recent years. Gu, who has lived in China for 17 years, said he has been deeply influenced by its cultural concept of “harmony without uniformity”. He said he was optimistic about continuing close relations between China and Russia, and called on young people worldwide to work together to promote the concept of “a community with a shared future for mankind” in the world.



Sinovuyo Mkula and Shannah from South Africa, talked to the forum by video about Chinese traditional medicine. Both told of the important role it plays in treating diseases in Africa. The Belt and Road Initiative is highly important in helping to reduce global poverty and to build a better world, Sinovuyo said.



Minh Thao Chan from France, a PhD student majoring in autonomous driving at Tsinghua University, talked of his understanding of the “Chinese path to modernization”. China has placed a premium on developing science, technology and education, he said.



Sherif Abdelsamie, an Egyptian studying at the University of International Business and Economics in Beijing, told of the positive impact on Egypt of the Belt and Road Initiative, and expressed his gratitude to China for its contribution to the world’s development.



Tamar Kvlividze, a Georgian short-video blogger, who has her own channels on social media platforms in both China and Georgia, said that as an international online celebrity she used her camera to tell of what

she had heard and seen in China. Through her videos, a credible, appealing, and respectable presentation of China has attracted many viewers, she said.



Jennifer Holstein, from the United States, who had studied in China and worked as an educator here, said she agrees with the Chinese government’s idea of “invigorating China through science and education and developing a strong workforce for the modernization drive”. The government’s investment in education, the ethos of respecting teachers and education, and the pursuit of equity in education gave her insight into the rapid development of Chinese education, she said.



The Global Generation Z Forum 2022 was organized by China Daily 21st Century and co-organized by the College Alliance for Young Ambassadors, with the aim of guiding young people around the world to understand and interpret China, promoting mutual learning and communication, and encouraging young people to share responsibility for building a better world.

The 2nd World Health Forum opens Towards Health Equity, Together for a Shared Future

On November 19, the 2nd World Health Forum, organized by Tsinghua University and co-hosted by Tsinghua Vanke School of Public Health and Tsinghua Institute for Healthy China, kicked off at Tsinghua University in Beijing. The forum was themed Towards Health Equity, Together for a Shared Future.

The forum attracted distinguished guests from public sectors in public health, prestigious universities and institutions, international organizations, top journals and NGOs from more than 10 countries and regions. Opening remarks were delivered by Li Bin, Vice Chairperson of the 13th National Committee of the Chinese People's Political Consultative Conference (CPPCC), Cao Xuetao, Vice Minister of the National Health Commission, Wang Xiqin, President of Tsinghua University, Bill Gates, Co-chair and Trustee of the Bill & Melinda Gates Foundation, and Margaret Chan, Chairperson of the World Health Forum and Founding Dean of Tsinghua Vanke School of Public Health. Tsinghua Vice President Zeng Rong hosted the opening ceremony.

Jürg Burri, Ambassador of Switzerland to China, Liang Wannian, Executive Vice Dean of Tsinghua Vanke School of Public Health, Wang Kaibo, Vice Dean of Tsinghua Vanke School of Public Health, and representatives from the National Health Commission and the Chinese Ministry of Education, diplomatic officers from other countries to China, as well as representatives of UN agencies and international organizations in China, also attended the opening ceremony. More than 100 faculty members, research fellows and students from Tsinghua University participated in the opening ceremony.

Li Bin stressed that public health is an integral part of Chinese modernization. President Xi Jinping has clearly put forward that we must give strategic priority to ensuring the people's health and improve policies on promoting public health. This fully reflects the Chinese government's high concern about people's health and well-being, and about the people-centered philosophy of development.



She reviewed a series of landmark achievements in the reform and development of Chinese characterized health services, as well as the efforts made by the Chinese government to advance "health equity" in the process of building a healthy China.

She pointed out that, to achieve health equity, improving global health governance with the spirit of solidarity, multilateralism and continuing to open up to the outside world are essential. She hoped that through in-depth discussions on issues related to health equity, the forum would build consensus, promote cooperation, and contribute to a brighter future of human health.



Cao Xuetao, based on the report of the 20th CPC National Congress, stressed that the Chinese government adheres to people-centered philosophy, and has been implementing a series of practical measures and making unremitting efforts to achieve the goal of "basically achieving health and equity by 2030".

He pointed out that the realization of global health equity requires common wisdom and efforts of the international community. Information exchanging and experience sharing among countries need to be improved. China will continue to deeply participate in global health governance, actively implement the global development initiative, unite and cooperate to fight the epidemic, promote international cooperation and exchanges in health, and advance the building of a community of common health for mankind.



Tsinghua President Wang Xiqin stated that a university is a place where human civilization can be inherited, integrated, and developed. It has combined functions of scientific innovation, talent training, and international exchanges and cooperation. Universities must take the responsibility of protecting human life and health, and promoting health equity. Tsinghua University adheres to putting the people and their lives above all else, giving high priority to public health, and supporting it as a key development area of the University. He also said the University will make relentless efforts to apply systems thinking, maintain a global vision, and keep itself open and inclusive, so as to enhance mutual learning and exchanges with global partners, and play an important role in achieving "Universal Health Coverage" and building a community with a shared future for mankind.



Mr. Bill Gates pointed out that to make COVID-19 the last global pandemic, the world needs to do the right things, including more capacity in vaccine manufacturing, a better health system to ensure equal and quick access to vaccines, stronger disease surveillance, especially in low- and middle-income countries. He also emphasized the commitment of the Gates Foundation to bringing partners together from across sectors and national borders to achieve shared goals.



Margaret Chan said that achieving health equity is a long and complex objective. To achieve this, we should implement a fair and people-centred development policy and "Leave no one behind"; we should unite political, economic, and social efforts; we should mobilise the power of science and technology; and we should address the climate crisis that is preventing health equity. She reinforced that the international community must act urgently in solidarity to achieve health equity.



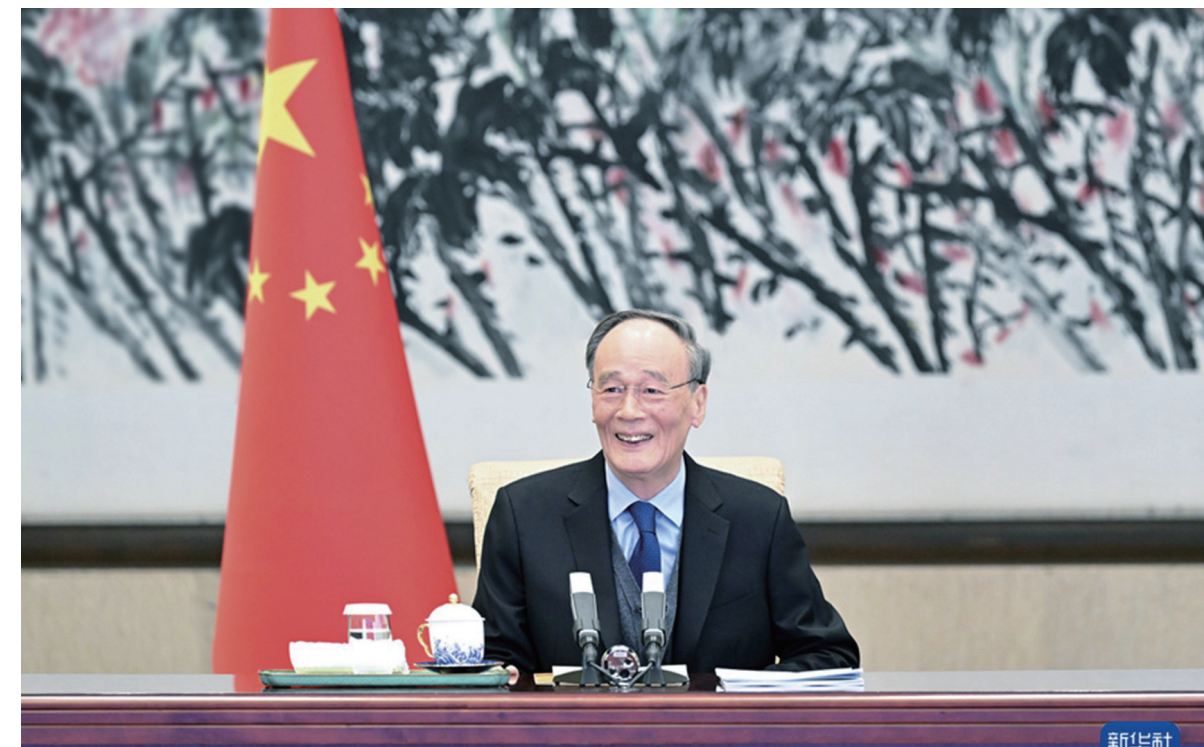
The two-day forum convened 70 global scholars, members of international organizations, industry leaders, academics and futurists from more than 10 countries and regions to take a long view on the following topics, including Building an inclusive mental health service system for all; leave no one behind; Address Health Issues of Vulnerable Populations; Achieving health equity with political, economic and social efforts; Universal Health Coverage: The Power of Science and Technology; Climate Change and

Health Equity; and Realigning Health and Poverty Alleviation towards the 2030 SDG Goals.

The World Health Forum was initiated by Tsinghua University in 2021. It aims to provide a platform for dialogue, academic exchanges and experience sharing, to strengthen capacity building and system building of global health governance, and to contribute to the UN 2030 Agenda for Sustainable Development and the building of a community of common health for mankind.



Chinese vice president meets Tsinghua University advisors



BEIJING, Dec. 9 (Xinhua) -- Chinese Vice President Wang Qishan met with the advisory board of the Tsinghua University School of Economics and Management in Beijing via video link on Friday.

Wang said the 20th National Congress of the Communist Party of China has made strategic plans for the cause of the party and state in the coming years, and China's major policies will maintain a high degree of continuity, stability, and certainty. China's new development will provide new opportunities to the world.

Noting that China-U.S. relations have an important impact on the world, Wang said the successful meeting between the two heads of state in Bali sent a positive signal to the world, urging the U.S. side to walk the talk and cooperate with China to implement the important consensus reached by the two leaders.

He expressed the hope that the international business community and academia will continue to expand cooperation with China and guide U.S. policymakers to view China and China-U.S. relations in an objective and rational way.

The advisors, led by Apple CEO Tim Cook, said they will continue to contribute to China's cooperation and exchanges with the world in such areas as trade and investment, scientific and technological innovation, talent and education, and green development.

GLOBAL ENGAGEMENT

Forum on Global Disclosure Standard for Sustainability held in Beijing

The Sustainability Forum 2022, hosted by Tsinghua University School of Economics and Management (Tsinghua SEM), London Business School (LBS), and the Asian Infrastructure Investment Bank (AIIB), was organized online by the Institute for Global Development at Tsinghua University (Tsinghua IGD) on September 15, 2022.

Discussions centered on the topic of "Global Disclosure Standard for Sustainability: Assessing Progress and Implications for Asia." Policymakers, academic experts, and market actors in Asia met to discuss sustainability-related issues and to comment on the draft of the International Sustainability Disclosure Standards (ISDS) published by the International Sustainability Standards Board (ISSB), and its impact on the Asian market.

As many as 500 online participants from more than 20 countries and regions participated in the six-hour conference. Participants represented the views of Asian politicians, academics, and market participants through their insights and ideas, and furthered the development of clear and accepted sustainable disclosure standards.

BAI Chong-En, Mansfield Freeman Chair Professor, dean of Tsinghua SEM and executive deputy dean of Tsinghua IGD; François Ortalo-Magné, professor and dean of LBS; and JIN Liqun, president and chair of the Board of Directors of AIIB, delivered opening remarks. Professor XIAO Xing, head of the Accounting Department, Tsinghua SEM, moderated the session.

In his speech, BAI Chong-En said sustainable development is a global issue that requires urgent action from all parties. Universities can participate in research, exchanges, education and outreach. Tsinghua SEM is actively researching key issues related to global development, offering ESG and sustainability courses, encouraging students and entrepreneurs to think about the environment, and promoting collaboration between business, academia, and researchers to spur technological innovation. According to BAI, in order to achieve the carbon neutrality goals and sustainable development, all societal sectors must cooperate, share ideas internationally, pool their knowledge, coordinate their efforts and reach a consensus. The forum would be an excellent place to start.



BAI Chong-En

François Ortalo-Magné spoke about ESG disclosure from a research standpoint. He said that ESG disclosure has significant ramifications for businesses, the investment community, regulators and consumers, and he cited research from the LBS to demonstrate how crucial ESG disclosure is to reducing corporate green-washing and facilitating the market's information flow.

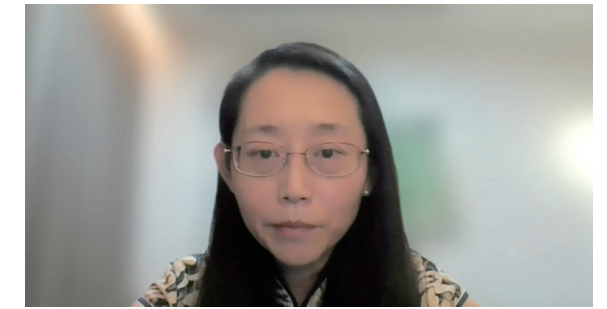


François Ortalo-Magné

JIN Liqun called for global agreement and decisive action to deal with the triple planetary crises of climate change, biodiversity loss, and pollution. The AIIB is built upon three enduring values: "Lean, Clean and Green." It is dedicated to supporting economically and socially viable infrastructure projects in Asia, with a target of ensuring that 50 percent of approved financing by 2025 will be directed towards climate finance, JIN said. The AIIB has been committed to transparency, integrity and accountability since day one, he said.



JIN Liqun



XIAO Xing

Emmanuel Faber, chairman of the ISSB, delivered a keynote address to introduce the ISSB and its first proposed set of Sustainability Disclosure Standards. The ISSB was given a mission by the International Financial Reporting Standards Foundation (IFRS) to develop a global benchmark standard for sustainable disclosure to meet the information needs of investors, when assessing the value of a company.



Emmanuel Faber

Emmanuel Faber began his presentation by reviewing the history of the ISSB's creation and its mission. Countries across the world have already provided feedback on the first drafts, which cover topics such as industry standards, implementation, and disclosure down the value chain. In the upcoming phase, the ISSB would compile and analyze inputs to improve convergence and interoperability with the standards of the EU and US, he said. Faber offered three suggestions to players in the Asian market: prepare early to seize opportunities and attract capital; learn more from one another, particularly by utilizing digital technology to go green; and concentrate on capacity building and engage in international benchmarking.

In "Thoughts from Policy Makers", attendees heard keynote speeches from ZHU Guangyao, former Vice Minister of Finance of the People's Republic of China and trustee of the IFRS Foundation; Erkki Liikanen, chair of IFRS Foundation Trustees; TU Guangshao, board chairman of the Shanghai Finance Institute,

former vice chairman of the China Securities Regulatory Commission and former vice chairman and president of the China Investment Corporation; and ZHU Min, vice chairman of the China Center for International Economic Exchanges, former deputy managing director of the International Monetary Fund and former deputy governor of the People's Bank of China. BAI Chong-En moderated the session.



ZHU Guangyao



Erkki Liikanen



TU Guangshao



ZHU Min

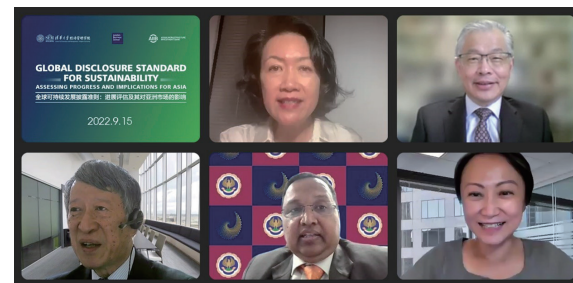
The main forum was followed by two sub-forums.

Erik Berglof, chief economist of the AIIB, presided over the first sub-forum, which had the theme "Feedback from Academia" and featured four academics, who shared their opinions and engaged in deep discussion.



Clockwise from top center: Erik Berglof, HE Kebin, Lucrezia Reichlin, MA Jun, Jong Dae Kim

Four panelists participated in the second sub forum, which had the title "Views from Market Participants" and was moderated by Teresa Ko, corporate partner and China chairman of Freshfields Bruckhaus Deringer and co-vice chair of the IFRS Foundation.



Clockwise from top center: Teresa Ko, ZHANG Weiguo, Yvonne Kam, Sanjeev Singhal, Hideki Kanda

Established in 2016, the Institute of Global Development at Tsinghua University (IGD) is a university-level research institution. The IGD is strategically positioned to develop a world-class high-end think-tank in the field of global development and global economic governance. Its research focuses on five strategic areas in global common development and global economic governance: economic development and anti-poverty action, international financial governance, international economic and trade relations, the digital economy and global climate change.

AUA Holds Online Education Fair 2022

The AUA Online Education Fair 2022 was held by the Asian Universities Alliance (AUA) from September 20 to October 9.

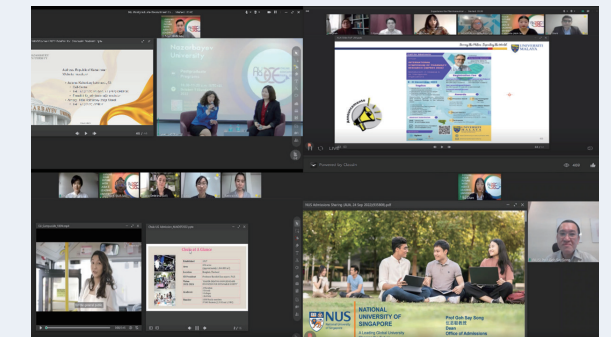
This is the second year that all 15 leading Asian universities hosted a joint education fair bringing thousands of viewers together to explore opportunities related to higher education and benefit from them. During the fair, 35 live recruitment events were broadcasted online featuring hundreds of academic programs available to international students. Live sessions during the AUA Online Education Fair lasted for four days in total. On September 24-25th, the admissions officers of member universities introduced their undergraduate programs and international student recruitment. As of October 8-9th, participants could explore postgraduate programs as well as featured study programs uniquely tailored for prospective students.



Live admission sessions of Tsinghua University

During the AUA Online Education Fair 2022, Tsinghua University delivered a set of sessions presenting its undergraduate and postgraduate programs that offer a wealth of academic and living resources to make student life more valuable, vibrant, and enjoyable. On Oct. 9th, Tsinghua University professors participated in two live sessions introducing featured academic programs: Prof. QU Xiaobo from the School of Vehicle and Mobility (SVM) at Tsinghua University presented current graduate programs available at SVM; Prof. ZUO Jian'e from the Tsinghua Shenzhen International Graduate School (SIGS) held the session presenting academic programs and university campus services

in Shenzhen. In addition, the Graduate School and the Admissions Office of Tsinghua University delivered two live sessions introducing application process guidelines for international students.



Live admission sessions of some AUA member universities

Admissions officers provided information about the latest admission policy and application process. Several member universities announced the launching of new postgraduate programs. Besides the Q&A session, each member university shared video clips of their respective universities during the event. Viewers from all over the world joined the virtual booths to connect with university representatives and engage in career exploration. Participants showed interest in various issues related to scholarships, fellowships, university campus services, student community, research collaboration, and more.

The Asian Universities Alliance (AUA) aims to cooperatively address regional and global challenges relating to higher education as well as economic, scientific, and technological development. Each year, AUA holds a variety of programs that promote student mobility, research collaboration, and the sharing of university strategies and policies among its member universities.

The playbacks of all 34 live recruitment events delivered during the AUA Online Education Fair 2022 are available at: www.asianuniversities.org/edufair.

Third Global Forum on Development of Computer Science held

The Third Global Forum on Development of Computer Science (GFDCS 2022) was held in a hybrid online and offline format at Tsinghua University on October 28, and was livestreamed worldwide bilingually.

Chen Yuan, Vice Chairman of the 12th National Committee of the Chinese People's Political Consultative Conference, delivered a speech to the forum through video. Wang Hongwei, Vice President of Tsinghua University, and Andrew Chi-Chih Yao, winner of the Turing Award and Dean of the Institute for Interdisciplinary Information Sciences at Tsinghua University, attended the forum and delivered speeches.

The forum was presided over by Yin Xia, Head of the Department of Computer Science and Technology at Tsinghua University. The theme of the forum was "Challenges and Opportunities of Computer Science in the New Era".

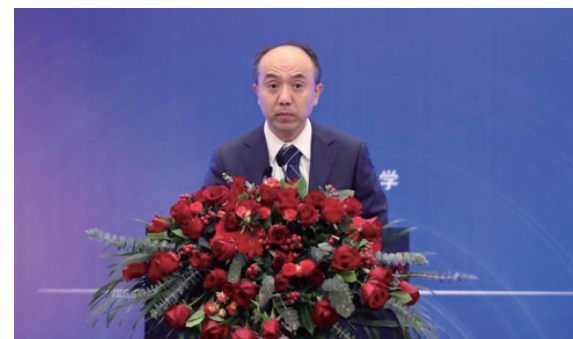
The heads/deans from more than 30 top computer science departments/schools worldwide, including the University of Illinois at Urbana-Champaign, the University of Cambridge, the Korea Advanced Institute of Science and Technology, the Hong Kong University of Science and Technology, Peking University, Zhejiang University, Beihang University, and the Beijing University of Posts and Telecommunications, participated in this forum, the livestream of which was watched by more than 7,000 scholars worldwide.



Chen Yuan delivers a video speech

Chen Yuan pointed out that it was of great importance that, in the face of profound changes unseen in a century, Tsinghua University had actively built a cooperation platform for friendly exchanges of the

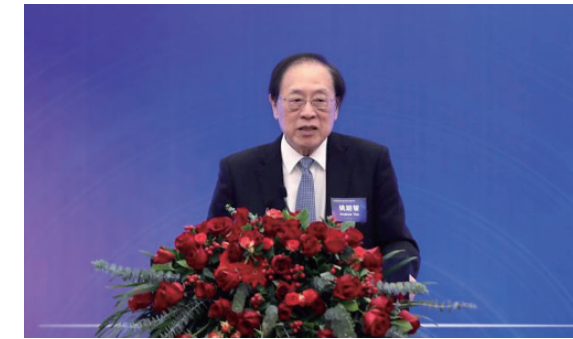
global community of computer science so as to make the community more open, shared and united. He hoped that this forum would build consensus on the development of computer science, find new ways of talent cultivation, and provide useful references for the development of global computer science: first, explore the nature of computer science and deeply promote its "connotative" development; second, enrich the "extensional" development concept of computer science by promoting interdisciplinary integration and collaborative innovation; third, build a talent cultivation mechanism for both connotative and extensional development of computer science.



Wang Hongwei delivers a speech

Wang Hongwei extended his best wishes for a complete success of the forum. He noted that the development of computer science requires global cooperation and joint efforts. This forum provides a platform to discuss the fundamentals of computer science, to help improve the quality of talent cultivation, and to promote the development of the computer science discipline globally. He hoped that participants would make full use of the occasion to exchange ideas, enhance mutual understanding, and produce a global view and forward-looking plans for the development of computer science discipline.

Andrew Chi-Chih Yao elaborated on the theme of this year's forum. He said that the development of computer science has been at an unprecedented pace in the past decades. This presents challenges and opportunities in the new era, which requires computer science colleges all over the world to jointly discuss and cope with. He hoped that colleges and



Andrew Chi-Chih Yao delivers a speech

universities would strengthen communication and cooperation and strive to promote the development of the computer science discipline.



Panel Discussion on the theme "Challenges and Opportunities of Computer Science in New Era"

The heads/deans of computer science departments/schools from the University of Illinois at Urbana-Champaign, the University of Cambridge, the Korea Advanced Institute of Science and Technology, and the provost from the Hong Kong University of Science and Technology gave keynote speeches on the future directions of computer science, the exploration of talent cultivation mechanisms in computer science, and the interdisciplinary integration among computer

science related disciplines. Afterward, Andrew Chi-Chih Yao, Zhang Ya-Qin, Dean of the Institute for AI Industry Research at Tsinghua University, and the distinguished speakers had a panel discussion on the theme "Challenges and Opportunities of Computer Science in New Era".



Yin Xia presides over the forum

The Global Forum on Development of Computer Science is a high-level international forum on discipline development held by Tsinghua University. The forum aims to explore the nature of the computer science discipline and promote its development worldwide. In 2018, the First GFDCS was initiated by Tsinghua University during the celebration of the 60th anniversary of the Department of Computer Science and Technology. In 2021, the Second GFDCS was held successfully, where the heads/deans of computer science departments/schools from the Massachusetts Institute of Technology, Imperial College London, the National University of Singapore and the Keio University of Japan had delivered keynote speeches under the theme of "Mission and Responsibility of Computer Science", and attracted extensive attentions from computer scientists globally.



Group photo of participants of the forum

G20 Entrepreneurship Roundtable 2022 opens

The G20 Entrepreneurship Roundtable 2022, which focused on the theme of "Inclusive and Sustainable Entrepreneurship as Job Creation Instruments", was cohosted by the Entrepreneurship Research Center on G20 Economies, Tsinghua University and the Ministry of Manpower of the Republic of Indonesia on October 26, 2022. The G20 Entrepreneurship Research Center has held the roundtable for six consecutive years, co-hosting the event with the G20 presidency for the first time this year. The meeting had two offline venues in Beijing, China and Jakarta, Indonesia.

Dr. Ida Fauziyah, minister of Manpower of the Republic of Indonesia, and Yu Jiadong, vice minister of Human Resources and Social Security of the PRC, spoke at the meeting.



Dr. Ida Fauziyah, minister of Manpower of the Republic of Indonesia

Professor Gao Jian, director of the Entrepreneurship Research Center on G20 Economies and professor at the Tsinghua University School of Economics and Management, Professor Anwar Sanusi, chair of the G20 Employment Working Group and secretary general of the Ministry of Manpower of Indonesia, and Dragan Radic, head of the Small and Medium Enterprises (SMEs) Unit of the International Labour Organization (ILO), delivered keynote speeches.

Fauziyah said the COVID-19 pandemic and global economic slowdown have put massive pressure on the entrepreneurial world, exposing weaknesses in productivity, management, and business skills of SMEs compared to big companies. In order to tackle these challenges, the G20 Labour and Employment Ministers' Meeting (LEMM) passed the Policy

Recommendation on Promoting Entrepreneurship and Supporting Micro, Small and Medium-sized Enterprises (MSMEs) as Job Creation Instruments. Fauziyah said the G20 Entrepreneurship Roundtable has laid a good foundation for G20 members to cooperate, share, and jointly address challenges. She said that she also hoped the discussion would generate ideas, solutions, and concrete steps to encourage inclusive and sustainable entrepreneurship as an instrument of job creation that is resistant to future shocks and uncertainties.

Vice Minister Yu Jiadong said the G20 Entrepreneurship Roundtable has become an important platform to share insights, exchange experience in promoting entrepreneurship, and provide support for G20 members to improve their entrepreneurship policies, and noted that its influence has continued to increase. He said the 2022 G20 LEMM considered sustainable entrepreneurship an important topic. The G20 Entrepreneurship Action Plan reached by G20 LEMM in 2016, in combination with new challenges in global entrepreneurship, will further promote entrepreneurship and support the development of SMEs, which are considered an important engine for stable job growth. The G20 Entrepreneurship Roundtable 2022, in his words, was an important step to implement consensus among the G20 Labour and Employment Ministers. Yu called on all members to use the roundtable to exchange experience, build consensus, and contribute insights to people-oriented recovery through entrepreneurship.

Professor Gao Jian introduced the Progress Report on the G20 Entrepreneurship Action Plan (2017-2021) and said that the implementation of the G20 Entrepreneurship Action Plan is important for the business development of G20 members, and also for leveraging the role of business startups in boosting employment and stimulating high-quality growth. The members had made progress in implementing the Action Plan over the last five years, but challenges remain. Gao offered five suggestions: to further improve the quality of entrepreneurial activities and leverage the role of business startups to boost employment; improve governments business service systems and make them more effective; encourage

organizations to pursue innovation and improve the quality of services for entrepreneurs; build a global entrepreneurial cooperation and incubation network to enhance the ability of MSMEs and startups to expand into the global market; and promote inclusive and sustainable entrepreneurship, and create an equal environment for businesses startups.



Professor Gao Jian, director of the Entrepreneurship Research Center on G20 Economies and professor at Tsinghua University School of Economics and Management

Professor Anwar Sanusi highlighted that the G20 Entrepreneurship Roundtable was one of a series of activities of the G20 Employment Working Group in 2022, and the event was in line with the outcome in the G20 LEMM, which promoted inclusive and sustainable entrepreneurship to create stable jobs. Sanusi also shared policy recommendations from the G20 LEMM on promoting entrepreneurship and supporting MSMEs. The recommendations include supporting a conducive

business environment and enterprise formalization; promoting entrepreneurship and entrepreneurial training; helping entrepreneurs and MSMEs address challenges and sustain their development, and protecting the rights and interests of entrepreneurs, MSMEs, and their employees.

Dragan Radic said entrepreneurs and SMEs play an important role in economic development and social progress because they are drivers of economic and social development and are key to promoting decent work. Radic shared the ILO's policy recommendations on the challenges facing entrepreneurs and SMEs, including continuously optimizing the business environment, providing high-quality business development services, broadening fundraising channels, improving market systems, promoting formalization and enhancing enterprise productivity and resilience.

The G20 Entrepreneurship Roundtable 2022 focused on five topics: strengthening policies to support inclusive and sustainable entrepreneurship; enhancing innovation and entrepreneurship capacity; expanding the international cooperation network on entrepreneurship; promoting green and digital entrepreneurship; and boosting inclusive and sustainable SMEs and startups. Representatives in attendance included those from governments, universities, enterprises, and research institutes of G20 members, international organizations, such as the ILO, OECD, UNESCO, and UN Women, as well as social groups, such as the Youth 20. They met to exchange ideas on the latest entrepreneurial perceptions and practices.



Group photo at the G20 Entrepreneurship Roundtable

AUA holds Executives' Meeting 2022 in Al Ain, UAE

The AUA Executives' Meeting (AUAEM) 2022 was hosted by AUA Executive Presidency 2022-2023 United Arab Emirates University from November 9 to 10, 2022. Participants representing all AUA member universities joined the AUAEM 2022 held in Al Ain, UAE. All attendees shared their experiences of AUA programs and discussed opportunities for future development. Professor Wang Hongwei, Vice President of Tsinghua University, delivered the remarks at the opening ceremony.



Prof. Wang Hongwei, on behalf of AUA President Professor Wang Xiqin, welcomed all attendees and expressed his deepest appreciation to Vice-Chancellor Prof. Ghaleb AlBreiki, acting Vice Chancellor of the United Arab Emirates University (UAEU), and his team for their efforts in organizing the first Executives' Meeting held offline since the pandemic. Prof. Wang stated that after five years of building, AUA has become more open, more inclusive and more resilient by addressing global challenges through extensive collaboration. He stressed that Tsinghua University, as the permanent host of the AUA Secretariat, will continue its unwavering commitment to the future development of AUA.

Prof. AlBreiki, in his welcoming address, praised AUA for its achievements throughout the years. As the UAEU is looking outward to new partnerships, Prof. AlBreiki mentioned that it is important to prioritize programs focusing on cultivating collaborations that lead to greater innovation.

Following this, Prof. H.D. Karunaratne, Vice Chancellor of the University of Colombo, also delivered his remarks, highlighting past AUA programs and their significance for Asian higher education. He mentioned that AUA member universities should continue

to create new avenues for cooperation and forge collaborations on research in new arenas.

On November 9, following the opening ceremony, three sessions were held. During the first session, chaired by Prof. Abdullah AlSalman, Vice Rector of King Saud University, representatives from six member universities reported on the AUA programs they hosted this year, including an academic conference on the Exchange of Asian Civilizations and the Smooth Flow of Trade along the Countries of the Belt and Road Initiative organized by Tsinghua University. The AHEO Project Director, Dr. Zhong Zhou of Tsinghua University Institute of Education, reported on the latest progress of the research. The AUA Secretariat reported on the AUA Online Education Fair 2022 and AUA Lecture Series 2022.

Prof. Thidar Aye of the University of Yangon chaired the second session. Dr. Zhang Chuanjie, AUA Secretary, introduced the draft of AUA Framework 2023-2026 and encouraged member universities to propose new initiatives beyond the Framework. The third Session, chaired by Prof. Yong Zulina Binti Zubairi, Exercising the Function of Registrar of Universiti Malaya, discussed ideas regarding the 7 major revisions of the new Framework suggested by AUA Secretariat.

Three more sessions were held on November 10, including the closing ceremony. Prof. Ilesanmi Adesida, Provost of Nazarbayev University, reported on the Fifth Meeting of AUA Working Group I on Financial Sustainability. As to the AUA Working Group II, Dr. Mezyad Alterkawi, Director of the International Cooperation and Scientific Twinning Department at King Saud University, reported on Member and Observer Admission.

Prof. K.V.K. Rao, Deputy Director of the Indian Institute of Technology Bombay, delivered the closing remarks, thanked all attendees for their participation in discussions during the AUAEM 2022, and concluded that AUA will continue promoting research collaboration and encourage member universities to increase participation in future AUA activities.

Overall, AUA Executives' Meeting 2022 reflects the readiness of AUA member universities to deepen strong multilateral relationships in the post-pandemic era and forge ahead with new initiatives. As a result of the fruitful discussions, participants jointly



reiterated that the key to future development is to strengthen ties among AUA member universities while transforming Asian higher education through innovative approaches.

Professor Li Zheng, the Secretary General of GAUC and Executive Vice President of Tsinghua's Institute of Climate Change and Sustainable Development (ICCS), moderated the opening session at Tsinghua. Professor Li expressed his gratitude towards the support from GAUC member universities and global

partners. "Everything would not have happened without a group of dedicated dreamers," he said.

Echoing the three-level structure of the campaign, the launching ceremony then broke into three sessions to illuminate the systematic design of the campaign, led by Sciences Po, Stellenbosch University, and Tsinghua University.

Sciences Po led the first session on the pilot program as its co-initiator.

1st Tsinghua Higher Education Forum explores new role of universities in a changing world

The evening of November 29 saw the 1st Tsinghua Higher Education Forum initiated by Tsinghua University in Beijing, themed by "New role of universities in a changing world: Big issues to shape emerging futures". Du Yubo, President of the China Association of Higher Education, Wang Xiqin, President of Tsinghua University, and Nicholas B. Dirks, the 10th Chancellor of the University of California, Berkeley attended the opening ceremony of the Forum, presided over by Yang Bin, Vice President of Tsinghua University.



全国人大常委会委员 教科文卫委员会副主任委员
中国高等教育学会会长 教育部原党组副书记、副部长 杜玉波

In his video speech, Du Yubo first expressed his congratulations on the convening of this Forum. He emphasized that China, as a major developing country, has put forward a major initiative to build a community with a shared future for mankind in the face of major changes unseen in the world today, which has responded to global issues and proposed what mankind should do. As an indispensable and important driving force for building a community with a shared future for mankind, universities shoulder important responsibilities such as talent training, scientific research, social services, cultural inheritance and innovation, and international exchanges and cooperation. Facing the future, universities must train qualified talents, build an international academic community, and expand international exchanges and cooperation. Cooperation is a historic trend, and win-win is what the people want. We need to jointly foster the quality development of higher education, and make new and greater contributions to the building of a community with a shared future for mankind and creating a new form of human civilization.



Wang Xiqin extended a welcome to all the guests, experts and scholars present at the Forum. He pointed out that the world today is confronted with accelerated changes unseen in a century, which has profoundly affected the process of global higher education. Higher education has entered a new stage of development, taking on characteristics of the new era. First, the emergence of new disciplines as well as subject differentiation are more and more contradictory to the interdisciplinary solutions of multifaceted issues. Second, universities' reputations and scholars' reputations increasingly enhance each other. Third, the methodologies of sciences and arts increasingly overlap. And fourth, university education and socioeconomic development are increasingly intertwined. The current development of higher

education showcases that universities undergo integration in many ways.

For more than 110 years, Tsinghua has greatly valued the integration of China and the world, the past and the present, the arts and sciences, embarking on a path of interrelated development. The future of Chinese universities will also embrace the engagement with an array of diverse cultures, arts and sciences, the past and the present. This approach to development means that China's university education should better combine global analytical thinking with Chinese correlative thinking, combine people's inner quality and social role, and integrate arts, which focus on sensibility, and sciences, which focus on rationality, so as to achieve all-round development. It also means that universities should combine the competition-dominant market approach with the regulation-dominant planned approach for a better university governance model and overall social progress.

Wang added that he hoped all experts and scholars at the Forum to have in-depth exchanges and discussions, shed some new light on the development of higher education, and make intellectual contributions to the development of human society. He also hoped that there would be more sessions of the Tsinghua Higher Education Forum in the future, so as to serve as a brand new and outstanding platform for discussions on the development of global higher education.



Nicholas B. Dirks discussed universities' ideals in the 21st century. He started his speech with the 19th century educator Cardinal Newman's philosophy on universities, "knowledge for knowledge's sake", and proposed that liberal arts education is an important goal of school education, and that liberal arts education and science and technology education should be closely integrated. Speaking of his own

experience, Dirks said that the philosophy of the University of California, Berkeley is the "California Idea" in the 20th century. In the 21st century, universities need to train students with comprehensive thinking, learning and research capabilities, and must provide education and research opportunities for students from a wider society. The idea of universities will be the most critical idea for future prosperity, safety, health, intellectual well-being for all.



Sub-forum 1 took place under the theme of "Revisiting the Ideal of a University". Xie Weihe, one of the Distinguished Professors of Arts, Humanities and Social Sciences at Tsinghua University, released a keynote report entitled "Values: the key to learning to be human". Professor Simon Marginson of Oxford University released a keynote report entitled "Higher education as self-shaping of students". Shi Jinghuan, Professor at the Institute of Educational of Tsinghua University, spoke highly of the reports of the two experts, which echoed the theme of the forum and

stressed the key idea that educating people is the core mission of higher education. Hans de Wit, former Director of the Center for International Higher Education of Boston College, and an esteemed global expert on higher education emphasized in his speech that the cultivation of students' international vision and sense of social responsibility needs attention. Professor Yang Rui, Dean of the Faculty of Education at the University of Hong Kong, shared his views on the essence of education, mutual respect between Chinese and Western civilizations, and the combination of different cultural traditions. The Sub-Forum was chaired by Professor Wen Wen, Deputy Director of the Division of Higher Education, Institute of Education, Tsinghua University.

Many experts and scholars from Institute of Education, Tsinghua University, Graduate School of Education, Peking University, Centre for Global Higher Education, Oxford University, Faculty of Education, University of Hong Kong, School of Education, Tianjin University and other global educational institutions participated in the forum, and more than one million viewers watched the live broadcast of the opening ceremony online.

During the four-day Forum, experts and scholars at home and abroad focused on universities' mission of educating people, social responsibilities, higher education empowered by technology, and the ideals of universities. Three Sub-Forums were held, with the themes of "Learning to be Human: The Education Mission of Universities", "Reimagining Technology-empowered Higher Education" and "Rethinking the Social Responsibility of Higher Education".



3rd International Forum on Engineering Education opens online

The 3rd International Forum on Engineering Education was jointly launched by Tsinghua University, the Chinese Academy of Engineering (CAE) and the United Nations Educational, Scientific and Cultural Organization (UNESCO) on the night of December 7.

Under the theme of "Sustainable Innovation in Information Technology," the online forum brought together about 500 experts and scholars in the sectors of engineering education, disciplines and industries, who will hold talks and exchanges about how to give full play to the roles of engineering education in promoting sustainable development, making digitization more intelligent and advancing the growth of engineering education.



development strategy, open up new areas and new arenas in development, and steadily foster new growth drivers and new strengths. Li added that engineering technology and education are crucial in addressing major global challenges, and that human talents in the engineering sector are of vital importance to the development of the scientific and technological revolution and industrial transformation.

Li emphasized the importance of exchanges and mutual learning to the high-quality development of engineering education and called on attendees to share their thoughts and experiences, come up with insightful proposals, and strengthen their friendship with worldwide partners.



Shahbaz Khan said that the UN agency has maintained close cooperation and exchanges with Tsinghua University on the development of engineering education since establishing the International Centre for Engineering Education (ICEE) at the prestigious Chinese university six years ago. He noted that engineers have

used their scientific knowledge and experience to promote the realization of the sustainable development goals and to bring benefits to all of mankind.

Khan said that engineering innovation has become a paramount factor in transforming the landscape of social development and that the coexistence of crises and opportunities has set higher requirements for future engineers, engineering practitioners and researchers. He added that the forum has provided attendees with a valuable platform to deepen their collaboration, promote research projects related to sustainable development, have a better understanding of engineering education, and to improve and innovate talent cultivation mechanisms.



Qin said that all sides should strengthen their exchanges and cooperation on the development of engineering education as the dynamic growth of engineering technology has expedited the revolution of engineering education. He hoped that the forum will adhere to UNESCO's guiding principle of opening science to all people, focus on educational revolution with a global vision, explore effective approaches to resolve major issues connected to engineering education, share experiences and practices in the cultivation of high-caliber talents in electronic information technology, put forward proposals for the further revolution of engineering education, forge consensus for cooperation, and make new contributions to the revolution of global education and the development of global engineering education.



Wang Xiqin delivered a speech themed on "Engineering Education: Empowering digital and intelligent transformation, and promoting sustainable development." Wang said in his speech that engineering education fully reflects the characteristics of the times in higher education development. The world today is confronted with accelerated changes unseen in a century, which have a profound effect on global higher education. The educational mode and form of higher engineering education are quietly changing: first, it is more integrated, and talent cultivation presents cross-discipline characteristics; second, it is more innovative, and the emerging engineering disciplines break the traditional education pattern; third, it is more comprehensive, and the training process is integrated with elements of the humanities and social sciences; fourth, it more effectively faces real life problems.

He also noted that engineering education leads in advancing the realization of sustainable development goals. In Transforming Our World: The 2030 Agenda for Sustainable Development approved by the UN in September 2015, the 17 sustainable development goals (SDGs) are the systematic development framework and common action plan proposed by mankind based on historical experience and future vision. Each of them is related to engineering and the fulfillment of each goal depends on engineering.

It is said in the Report to the 20th National Congress of the Communist Party of China that to build a modern socialist country in all respects we must, first and foremost, pursue high-quality development.

The new development concepts of innovation, coordination, green procedures, openness and sharing are essentially consistent with the concept of sustainable development. Engineering education, as a hub of education, science and technology, and its related talent, is the basic and strategic support for



CAE President Li Xiaohong, Tsinghua University President Wang Xiqin, Director of UNESCO's Beijing office Shahbaz Khan, as well as Secretary General of the Chinese National Commission for UNESCO Qin Changwei attended the opening ceremony.

Wang Guangqian, vice-president of Tsinghua University, presided over the opening ceremony.

In his speech, Li said that General Secretary of the Communist Party of China (CPC) Central Committee Xi Jinping stressed in his report to the 20th CPC National Congress that the country must regard science and technology as a primary productive force, talent as a primary resource and innovation as a primary driver of growth, fully implement the strategy for invigorating China through science and education, the workforce development strategy and the innovation-driven

achieving high-quality development and fulfilling the sustainable development goals.

Wang stressed that the digital and intelligent transformation of engineering education requires electronic information empowerment.

Digital and intelligent transformation is the trend of economic and social development, and empowering it with electronic information is the direction in which higher engineering education is developing and an effective way to achieve sustainable development. Higher engineering education should incorporate electronic information technology into the talent training program in various engineering fields, speed up the deep application of digital and intelligent technology in the field of engineering education, and strengthen its close interaction and collaboration with industry. It is important to promote the integration of production and education, and educate people cooperatively. It is hoped that we can give full play to the empowering advantages of electronic information technology to draw a bright future for the development of engineering education and for the sustainable development of human society.



Kazuya Masu, president of the Tokyo Institute of Technology (TIT), said that engineering education has not only fostered professionals and engineers in certain fields, but has also cultivated those with a wider vision, capable of promoting social and economic development with their knowledge and skills. He spoke with participants about the efforts and practices taken by the TIT to advance the development of engineering education and strengthen educational integration with the liberal arts and sciences.



Gong Ke, director of the Academic Committee of Nankai University and executive director of the Chinese Institute of New Generation Artificial Intelligence Development Strategies, and Wang Xiaoyun, general-manager of China Mobile Communications Group's technical department, delivered thematic reports on engineering education and the sustainable development of the mobile telecommunication industry at the opening ceremony.

The three-day forum comprised eight sub-forums, during which over 80 experts, scholars and enterprise representatives held dialogues over a wide range of topics, including electronic information, urban resilience, digital health, a new power grid and smart new energy vehicles.

SCIENTIFIC INNOVATION

Soft robots take on hard work

A robotics expert is helping her inventions navigate through difficult, tight spaces using unique soft materials that contract and expand on demand.

In the last few years, oil and gas companies have begun to rely on robots to travel miles of undulating pipelines checking for weaknesses, cracks, and blockages.

But it's been much harder to make mechanical robots small enough to squeeze through the centimetre-wide tubes commonly found in everything from aircraft engines to oil refinery machinery.

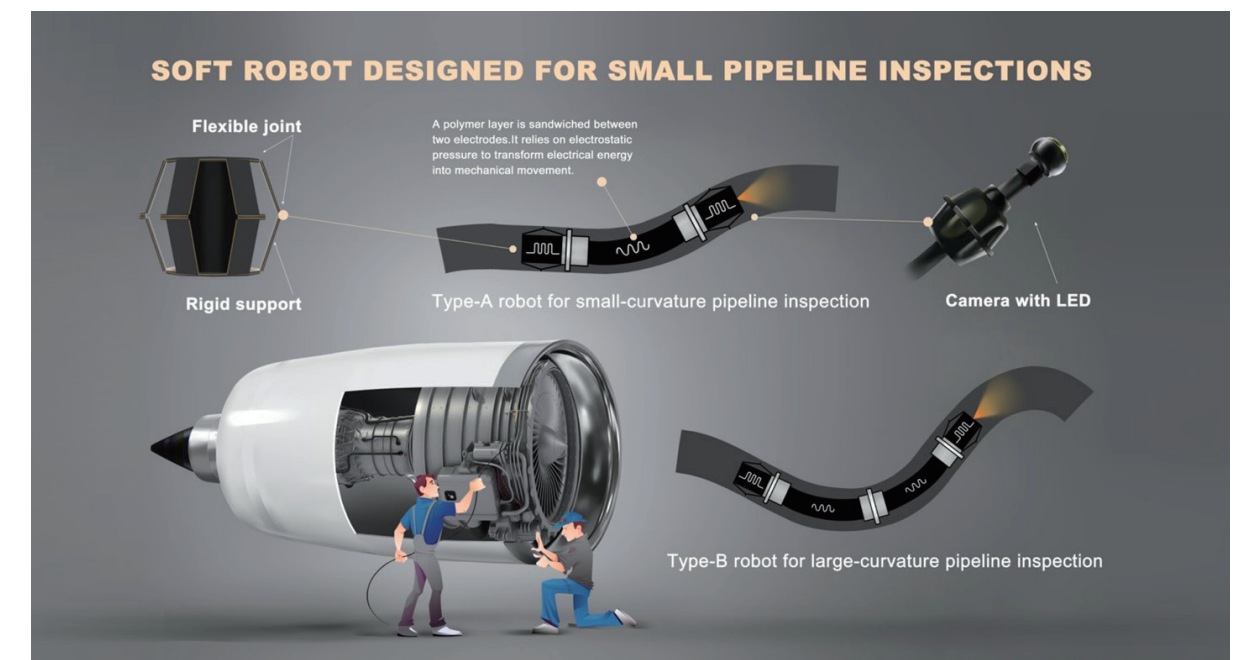
Huichan Zhao, a mechanical engineer at Tsinghua University in China, thinks soft robots, without wheels or other chunky components that can't fit through a gap or squeeze around a tight corner, could be the solution.

Soft robots often attempt to copy the motion of nature's soft structures, such as elephant trunks

and the tentacles of an octopus, explains Zhao. Soft structures can often move in more complex ways than conventional robots with joints, she says.

Earlier this year, Zhao and her collaborators published the details of a soft robot designed to mimic the movement of earthworms, which could be used to perhaps inspect the narrow pipes found in machinery such as aircraft engines. One day, she hopes her earthworm-inspired robot could replace the fibre-optic cables typically used to inspect these pipes today.

"Using fibre optics to see inside pipes requires a skilled engineer to manually control the process," she explains. "Using a robot that navigates the pipe itself saves time and effort."



Huichan Zhao and her collaborators are creating soft robots that use similar movement techniques to earthworms for potential use in inspecting small pipelines, such as those found in aircraft engines.

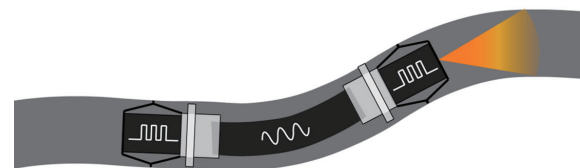
Worming through

An earthworm travels forward using a physical process called peristalsis, which relies on the rhythmic contraction and relaxation of muscles in a series of connected segments. Ring-like muscles around the worm's diameter can change its body thickness to either swell and grip the inside of a tunnel or shrink to pass through. Longitudinal muscles along the length of the creature's body push the worm forwards or backwards.

So, if an earthworm fixes its rear ring muscles against a tunnel's insides and then stretches its longitudinal muscles to push forwards, followed by fixing its front ring muscles and then contracting its longitudinal muscles again, its body nudges forward.

Most importantly for soft robot design, because an earthworm moves purely through muscle expansion and contraction, it doesn't need any complicated moving parts and mechanisms. This makes it relatively easy for scientists to copy.

To mimic this movement pattern, Zhao focused developing smart materials called dielectric elastomer actuators that can squeeze and relax in response to an electric supply being turned on and off.



Type-A robot for small-curvature pipeline inspection



This soft robot that uses the same movements as an earthworm to move through a narrow pipe – anchoring by expanding its front or back sections to brace against the tunnel or pipe walls, and then extending its middle sections to move forward.

These smart materials sandwich a polymer layer between two electrodes and rely on electrostatic pressure to transform electrical energy into mechanical movement.

Using dielectric elastomer actuators that work in different directions when stimulated by electricity to mimic the earthworm muscles, Zhao could build a robot that uses the same strategy as an earthworm to move through a narrow pipe: anchoring one end against by expanding to brace against the pipeline walls, and then extending along it.

By attaching a small camera to the front of the robot, users can check the insides of the pipe as the robot nudged along.

Published in the journal *Science Robotics*¹, the soft robot is a demonstration of how the concept could work, but many details must be ironed out before it could be used in practice.

For instance, because the electricity is supplied to the robot through trailing wires, this increases drag and might prevent the robot from making headway through some pipelines. A better design would rely on portable high-powered batteries, says Zhao.

"As far as I know, there are no such robots in use. Many challenges need to be overcome, such as how to effectively connect an energy supply, and improve controllability and reduce cost," she says. "I think, it still needs five to ten years of fundamental research."

Rapid rise for robotics researcher

Zhao is still in her 30s, having graduated with a double degree in mechanical engineering and economics from Tsinghua in 2012. She then carried out postgraduate studies and training in the United States, including time working on using integrated sensors to improve robot touch sense at Cornell University in the United States, and later at the Microbotics Laboratory at Harvard University, also in the US. When she returned to Tsinghua in 2018, she was one of the youngest faculty members at the time.

Her research with robots is not confined to pipelines. With collaborators, she has previously developed a tiny flapping robot and eventually got it to fly. And in early 2020, she and other team members developed an early throat swab sampling robots in response to the outbreak of the COVID-19 pandemic. The swabbing robot looks more like a conventional robot:



Huichan Zhao (right) tests one of her robotic creations

a seven-jointed robotic arm and a small robotic hand that can grab cotton swab. It was designed to relieve the burden on human samplers, reducing the risks of infection and contamination via the sampling process, explains Zhao.

Healthcare should be a useful arena for soft robots, she adds. "They could be used as surgical robots," she notes. "I think they could become quite desirable, as they would do less harm to tissues than hard instruments."

So, while robots that look like humans often receive the most of the attention, it could be the small soft robots inching around our pipelines or in the body that really have an impact on day to day life.

Reference

Tang, C., Du, B., Jiang, S., Shao, Q., Dong, X., et al. A pipeline inspection robot for navigating tubular environments in the sub-centimeter scale *Science Robotics* 7(66) (2022) doi: 10.1126/scirobotics.abm8597

Jijie Chai and collaborators publish an article entitled 'Plant receptor-like protein activation by a microbial glycoside hydrolase' in Nature

During the long-term fighting against pathogens, plants have evolved a sophisticated innate immune system to defend against infection. Plants pattern recognition receptors (PRRs) sense pathogen-associated molecular patterns (PAMPs) or host-derived danger-associated molecular patterns (DAMPs) to activate an immune response termed pattern-triggered immunity (PTI). PRRs are mainly composed of receptor kinases (RKs) and receptor-like proteins (RLPs). Specifically, one subgroup of PRRs contains an extracellular leucine-rich repeat (LRR) domain called LRR-type PRR, which can be further divided into LRR-RKs and LRR-RLPs. Although the molecular mechanism of ligand recognition and activation of LRR-RKs is well understood, however, mechanisms underlying ligand recognition and activation of LRR-RLPs, which play a critical role in plant immunity, remain elusive.

On September 21 of 2022, Jijie Chai's group from Tsinghua University and Yuanhao Wang's group from Nanjing Agricultural University published a paper entitled "Plant receptor-like protein activation by a

microbial glycoside hydrolase" in *Nature*. This study reveals a conserved mechanism of ligand-induced heterodimerization of an LRR-RLP with BAK1 and suggests a dual function of the LRR-RLP in plant immunity.

The research groups led by Dr. Chai and Dr. Wang found that RXEG1 binds to XEG1 mainly through two unique loops formed by the extracellular N-terminal cap and C-terminal island region. Comparison of the crystal structure of XEG1-RXEG1 and cryo-EM structure of apo-RXEG1 showed that XEG1 binding causes significant conformational changes in the RXEG1 island region and C-terminus, leading to the formation of the XEG1-RXEG1-BAK1 complex. The last four LRRs disordered in the XEG1-RXEG1 structure become well defined upon BAK1 binding. The structures together with biochemical data unraveled the mechanisms of ligand recognition by an LRR-RLP and ligand-induced association of the LRR-RLP with its co-receptor BAK1, providing a structural paradigm for understanding the activation mechanism of LRR-RLPs.

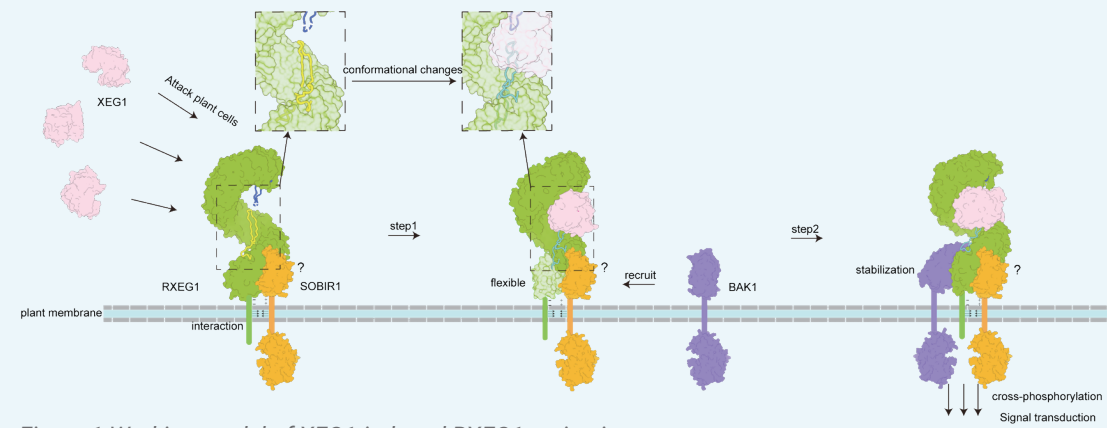


Figure 1 Working model of XEG1-induced RXEG1 activation.

Interestingly, the two loop regions of RXEG1 bind to the active site pocket of XEG1. Previous studies by Yuanchao Wang's group have shown that XEG1's xyloglucanase enzyme activity is essential for *Phytophthora* virulence. The in-vitro enzymatic assay and in-vivo function study also proved that RXEG1 inhibit XEG1's xyloglucanase activity. Taken together, data from this study revealed for the first time the molecular mechanism of ligand recognition and activation of plant LRR-RLPs, and identified a dual function of plant RLPs immunity. The study provides a paradigm for understanding the plant RLP family.

associate professor at the School of Plant Protection, Nanjing Agricultural University, and Xiaoxiao Zhang, a former postdoctoral fellow in the School of Life Sciences of Tsinghua University and currently an associate professor at Shanghai University of Science and Technology, were co-first authors of the paper.

The National Center for Protein Science (Beijing), the cryo-electron microscope platform of Tsinghua University, the high-performance computing platform of Tsinghua University and the Shanghai Synchrotron Radiation Light Source provided technical support for this research.

The research was supported by the National Natural Science Foundation of China, the National Soybean Industry Technology System Project, the National Key Research and the Alexander von Humboldt Foundation, the Max-Planck-Gesellschaft, Deutsche Forschungsgemeinschaft.

<https://www.nature.com/articles/s41586-022-05214-x>

Prof. Jijie Chai from School of Life Science, Tsinghua University, and Prof. Yuanchao Wang from School of Plant Protection, Nanjing Agricultural University, Associate professor Zhifu Han from School of Life Science, Tsinghua University, and Associate professor Yan Wang from School of Plant Protection, Nanjing Agricultural University are co-corresponding authors. Yue Sun, graduate students from the School of Life Sciences of Tsinghua University, Yan Wang, an

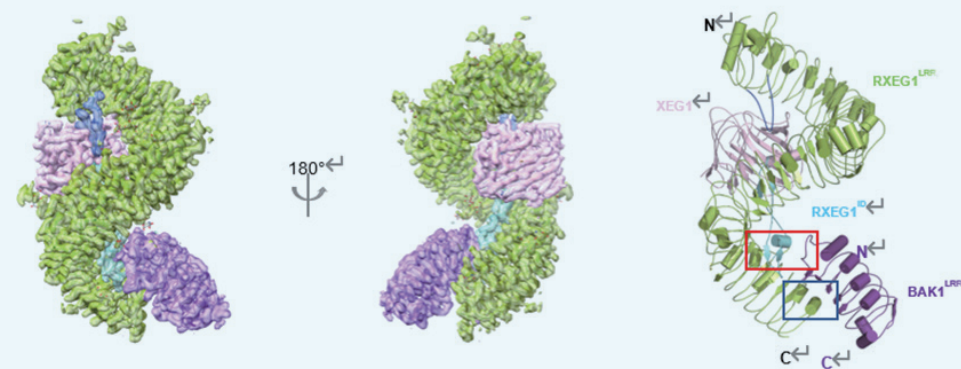


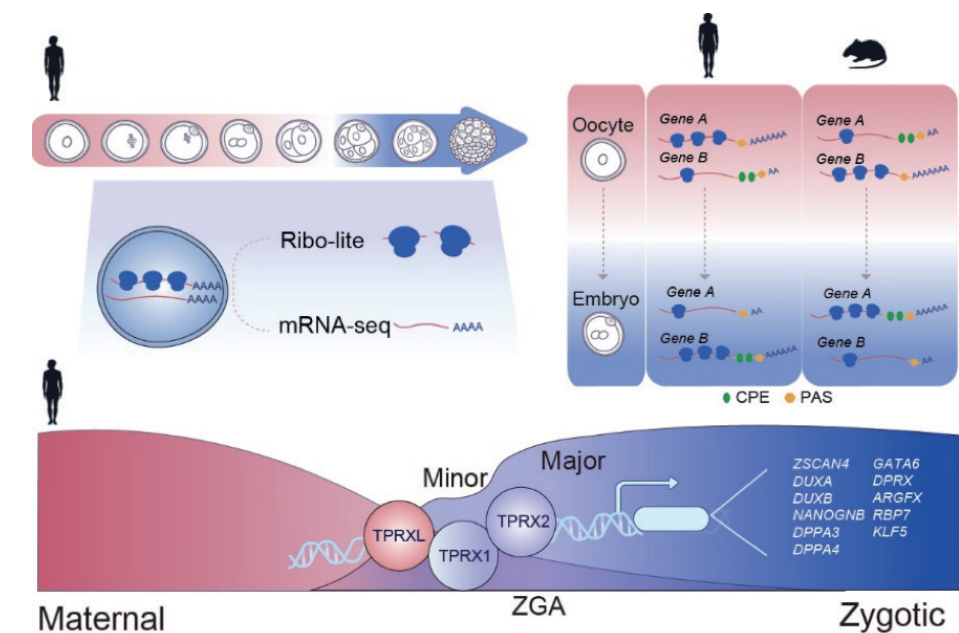
Figure 2 Structure of RXEG1-XEG1-BAK1 complex

Wei Xie's group, Zi-Jiang Chen's group, and Han Zhao's group published research in Science on the identification of TPRXs as regulators of human zygotic genome activation using translome and transcriptome co-profiling

A joint team led by Prof. Wei Xie at Tsinghua University, Prof. Zi-Jiang Chen and Prof. Han Zhao from Shandong University, has charted the translational landscapes during the human oocyte-to-embryo transition (OET). This dataset further identified a group of homeobox TFs, including TPRXL, TPRX1, and TPRX2, which are highly translated around ZGA, and are required for proper ZGA and preimplantation development. Their findings, published in *Science* on Sept 8, 2022, not only revealed the conservation and divergence of translational regulation during OET, but also identified critical transcription factor (TF) regulators of human zygotic genome activation (ZGA).

During the mammalian oocyte-to-embryo transition (OET), translation plays a critical role in regulating meiotic resumption, zygotic genome activation (ZGA), and early embryonic development. ZGA marks the

first transcription event in a new life and the onset of the embryonic program. However, how mammalian ZGA is initiated remains poorly understood. For example, while key ZGA transcription factors (TFs) have been well characterized in other species such as zebrafish and fly, which TFs control human ZGA remains elusive. By combining the ultrasensitive Ribo-lite (Ligation-free, ultra-low-Input and Enhanced Ribo-seq) recently developed by Wei Xie's group with Smart-seq2, Ribo-RNA-lite (or R2-lite) was adapted to co-profile the translome and transcriptome across 8 stages of human oocytes and early embryos. Through comparison with their counterparts in mouse, both conserved and widespread divergent translational activities were discovered, with the latter enriched for those functioning in epigenetic reprogramming, transposon defense, and small RNA biogenesis. Species-specific translation is in part driven by



Translatome and transcriptome co-profiling in human oocytes and early embryos reveals translation regulation mechanisms and key TF regulators for human ZGA.

different configurations of regulatory elements such as cytoplasmic polyadenylation element (CPE) and polyadenylation signal site (PAS) in the 3' untranslated regions (3' UTRs).

Using the R2-lite data, a group of homeobox TFs were found to become highly translated before or during ZGA, with their motifs enriched in distal open chromatin regions (putative enhancers) near activated genes upon ZGA. These TFs include TPRXL, encoded by a CPE-containing maternal transcript subjected to translation upregulation upon meiotic resumption, and TPRX1/2, which are expressed during the early phase of ZGA (minor ZGA). The joint knockdown of TPRX1/2/L (TPRX triple KD or TKD) led to severe defects in development and ZGA. About 31% of ZGA genes, which preferentially contain PRD-like TF binding motifs at promoters and nearby putative enhancers, were downregulated in TPRX TKD embryos. These TPRX target genes include a panel of downstream TF genes such as ZSCAN4, DUXB, DUXA, NANOGNB, DPPA4, GATA6, DPRX, ARGFX, and KLF5. Finally, ectopically expressed TPRXs could bind and activate a subset of ZGA genes in human embryonic stem cells (hESCs). Thus, these data revealed the conservation and divergence of translational regulation and their underlying mechanism during OET, and identified critical transcription factor (TF) regulators of human zygotic genome activation (ZGA), TPRX1, TPRX2, and TPRXL.

Prof. Wei Xie from School of Life Science at Tsinghua University, and Prof. Zi-Jiang Chen and Prof. Han Zhao from Center for Reproductive Medicine at Shandong University are the co-corresponding authors of this work. PhD students Zhuoning Zou from CLS program at Tsinghua University, Chunxin Zhang from Center for Reproductive Medicine at Shandong University, Qiuyan Wang from School of Life Sciences at Tsinghua University, and Research Assistant Zhenzhen Hou from Center for Reproductive Medicine at Shandong University are the co-first authors of this work. This work was supported by Key laboratory of Reproductive Endocrinology of Ministry of Education, National Research Center for Assisted Reproductive Technology and Reproductive Genetics at Shandong University, and Animal Center and Biocomputing Facility at Tsinghua University. This work was funded by the National Natural Science Foundation of China, the National Key R&D Program of China, the Research Unit of Gametogenesis and Health of ART-Offspring, Chinese Academy of Medical Sciences, Innovative research team of high-level local universities in Shanghai, the Tsinghua-Peking Center for Life Sciences, and the Beijing Municipal Science and Technology Commission. Wei Xie is a recipient of an HHMI International Research Scholar award.

Article Link: <https://www.science.org/doi/10.1126/science.abo7923>



Dr. Li Zhenhua wins 2022 CCF-IEEE CS Young Computer Scientist Award

Dr. Li Zhenhua, an associate professor at the School of Software, Tsinghua University, was awarded the 2022 CCF-IEEE CS Young Computer Scientist Award by the China Computer Federation on Oct 27. Li won the award for his research contributions to improving the architectural design for access networks.

Tsinghua professors, associate professors win China Youth Science and Technology Award



On Nov 12, the 17th China Youth Science and Technology Award announced its list of winners at the opening ceremony of the 2022 World Young Scientist Summit.

Five teachers from Tsinghua University were featured on the list, topping universities with the largest number of winners. The winners are: Long Di, associate professor from the Department of Hydraulic Engineering; Xu Ruina, professor from the Department of Energy and Power Engineering; Fang Lu, associate professor from the Department of Electronic Engineering; Liu Yiqun, professor from the Department of Computer Science and Technology; and Geng Hua, professor from the Department of Automation.

Proposed by Qian Xuesen and other older generations of scientists, the China Youth Science and Technology Award was set up in 1987 to commend young

scientific and technological talents who have made outstanding contributions to the country's economic development, social progress and scientific and technological innovation, and to cultivate a batch of young academic and technical leaders in world technological cutting-edge fields.

The award was jointly sponsored by the Organization Department of the Central Committee of the CPC, the Ministry of Human Resources and Social Security, and the China Association for Science and Technology.

The award is held every two years and honors no more than 100 winners each session, with no more than 10 Special Award winners chosen among the winners. About 1,500 young scientists have been awarded the prize since it was established over 30 years ago.

CDEX collaboration carried out the first direct detection result on Dark Matter-electron interaction based on High Purity Germanium detectors

On November 21st, CDEX (China Dark matter EXperiment) collaboration, led by the Department of Engineering Physics of Tsinghua University published an article titled "Constraints on Sub-GeV Dark Matter-Electron Scattering from the CDEX-10 Experiment" on

Physical Review Letters (Phys. Rev. Lett. 129, 221301, 2022). The paper analyzes the experimental data obtained by the CDEX-10 experimental system with an exposure of 205.4 kg·day, and Dark Matter-electron interactions was not observed. The most stringent

limit on cross section of Dark Matter-electron interaction amongst solid-stated detector-based experiments in mass range of > 100 MeV is proposed in the article.

Recent astronomy and cosmology observations strongly suggest the existence of Dark Matter. Theoretical models of Dark Matter are of great significance to our understanding of the origin of matter and the evolution of the Universe. Therefore, direct detection of dark matter is a heated topic at present, and currently direct detection experiments, including experiments based on liquid noble gases like XENON, PandaX, and DarkSide, etc., and experiments based on solid-state detectors including SENSEI, DAMIC, EDEIWEISS, CDMS, and CDEX, etc., are in full swing.

According to different theories, the mass of Dark Matter can distribute in a wide range. From extremely heavy primordial black holes, to extremely light neutrinos, these are all possible Dark Matter candidates. Previously, Dark Matter direct detection experiments were mostly concentrated in the mass range from \sim GeV to \sim TeV via Dark Matter-nucleus scattering. In recent years, in order to broaden the sensitive area of the direct detection experiments to

probe lighter Dark Matter particles, more attention is drawn to the physical channel of Dark Matter-electron interaction.

For the calculation of Dark Matter-electron interaction rate in semiconductor detectors, the tricky part is the crystal form factor calculation. Traditional calculation methods include semianalytic approximation methods and first-principle calculation method using density-function-theory (DFT). These calculation methods of Dark Matter-electron interactions focus more on the low-energy regions that are limited to the ~ 50 eV level, which is below the typical threshold of high-purity germanium detectors used in CDEX of ~ 100 eV. Recently, some progresses on Dark Matter-electron interaction calculation methods have emerged. The new method developed by T. Trickle et al. utilizes all-electron (AE) reconstruction to recover the high-momentum components in wave functions, and meanwhile, extends the calculation to electronic states that are further away from the band gap with semianalytic approximations. As a result, the range of predicted spectrum has been extended to the level of \sim keV. With the advantage of high exposure and ultra-low background level in CDEX-10 experiment, we have successfully performed an analysis on the Dark Matter-electron interaction and obtained competitive results.

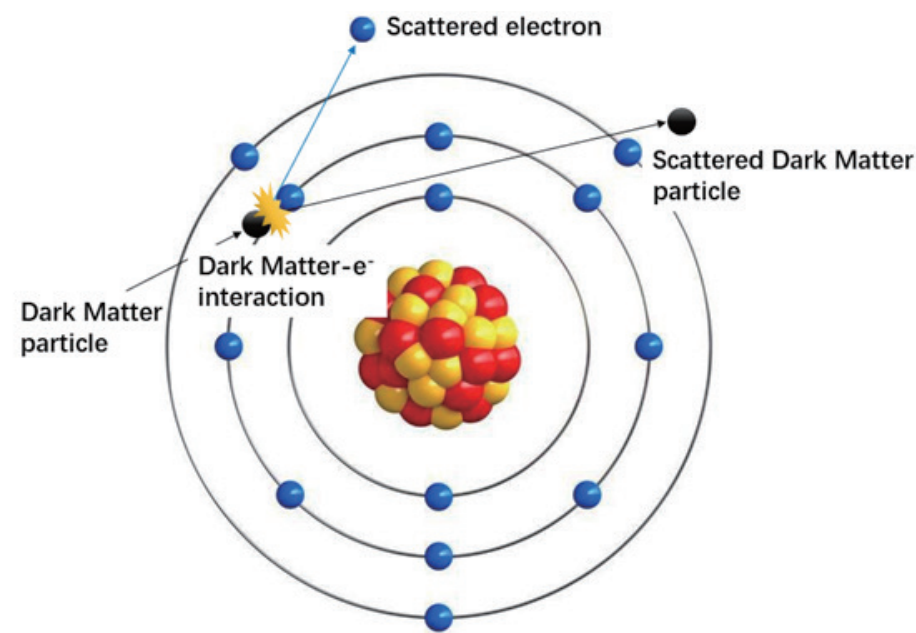


Fig.1 Dark Matter-electron interaction

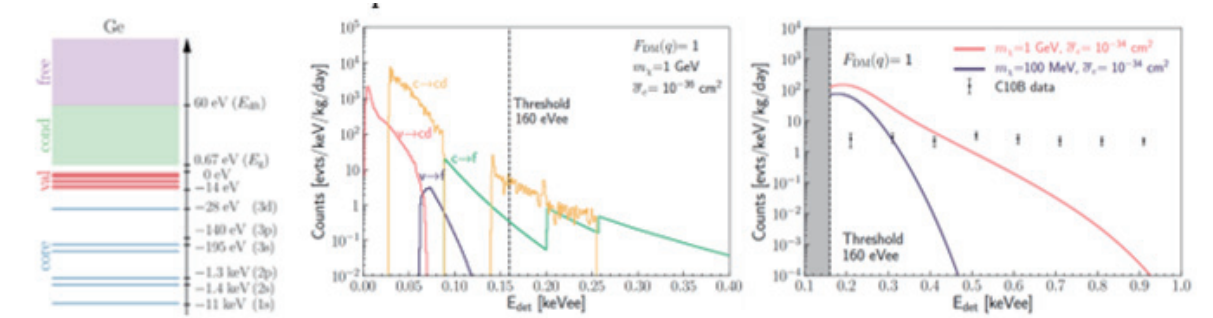


Fig.2 Predicted Dark Matter-electron scattering spectrum. Left: schematic representation of electronic states in Ge, divided into core ("c"), valence ("v"), conduction ("cd") and free ("free"). Middle: predicted spectrum contributed by different transitions; the energy range extends to above the energy threshold of the high purity germanium detector. Right: predicted spectrum convolved with energy resolution and the CDEX-10 experimental spectrum.

Based on the 205.4 kg·day dataset from the CDEX-10 experiment, CDEX collaboration establishes an analysis procedure for the Dark Matter-electron interaction detection, and proposed direct detection results on Dark Matter-electron interaction with high-purity germanium detectors for the first time. Amongst major direct detection experiments based on solid-

state detectors, this work presents leading constraints on Dark Matter-electron interaction for Dark Matter masses larger than 100 MeV, confirming the feasibility of probing Dark Matter-electron interactions via high-purity germanium detectors, and demonstrating the vast potential of this technical route in the physical channel of Dark Matter-electron interaction.

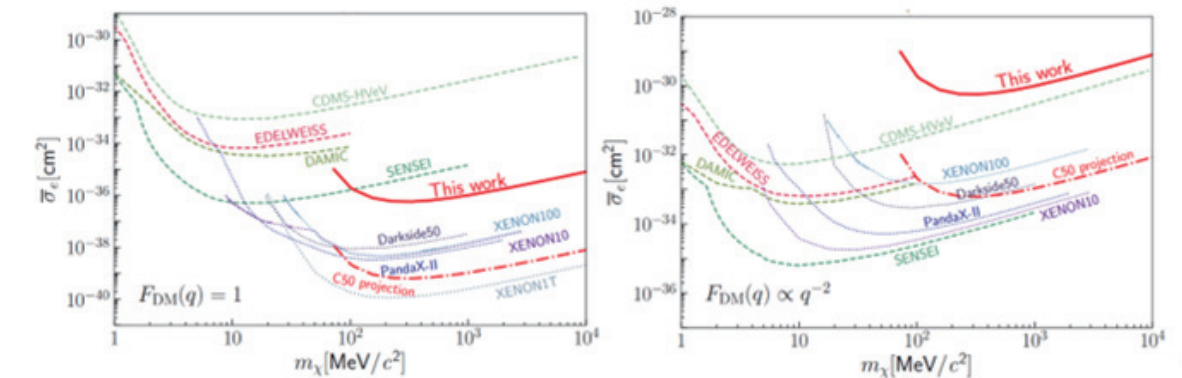


Fig.3 Exclusion lines from the CDEX-10 experiment. Left: The exclusion line in the heavy mediator scenario. For the dark matter mass range greater than 100 MeV, we present leading constraint on Dark Matter-electron interaction amongst major solid-state detector-based experiments. Right: The exclusion line in the light mediator scenario.

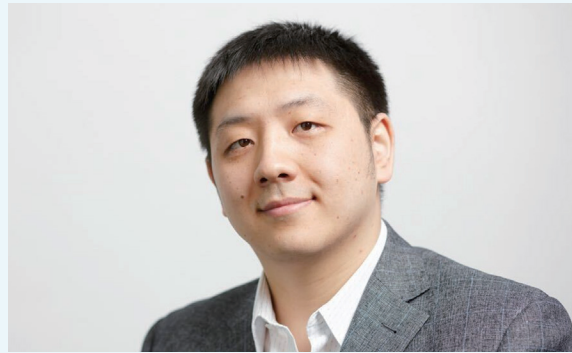
Zhenyu Zhang, Ph.D. students in Department of Engineering Physics, is the first author of this paper. Prof. Qian Yue and Assistant Prof. Litao Yang are the co-corresponding authors. This work was supported by the National Key Research and Development Program of China, the National Natural Science

Foundation of China, the Dark Matter Experimental Platform of Tsinghua University, and the Tsinghua University Initiative Scientific Research Program.

The original link: <https://journals.aps.org/prl/abstract/10.1103/PhysRevLett.129.221301>

Plotting a course for realistic and equitable decarbonization

Unless new policies are introduced aimed at 59 countries in which carbon dioxide emissions are surging, there is likely to be an increase in average global temperatures of 2.5°C, say



Dabo Guan, a distinguished professor of climate change economics, was a lead author for the chapter on regional development and cooperation for the 5th Assessment Report (AR5) of the Intergovernmental Panel on Climate Change (IPCC), a key document in the establishment of the 2015 Paris Agreement.

A new group of emerging emitters speeding past the large greenhouse gas emitters of old – the United States, European Union, India and China – are quickly re-writing the climate change story, says Dabo Guan, a distinguished professor of climate change economics at Tsinghua University.

In a study published in October 2022, Guan and an international team of experts defined emerging emitters as countries with emissions growing faster than the average of all nations' (excluding China and India). What they found was that the emissions in these 59 countries "were growing faster than we expected", says Guan.

Expectations based on previously published scenarios that would limit global warming to 1.5°C or even 2°C will need to be re-set, he says. Guan was a lead author for the chapter on regional development and cooperation for the 5th Assessment Report (AR5) of the Intergovernmental Panel on Climate Change (IPCC). AR5 was a key document in the establishment of the 2015 Paris Agreement, when almost 200 states agreed to take action to reduce greenhouse gas emissions to limit global warming to well below 2°C compared to pre-industrial levels. The 6th Assessment Report is currently being written ahead of 2023's

United Nations Climate Change Conference in the United Arab Emirates.

International mitigation efforts focus on the large emitters and, to some extent, neglect the emerging emitters, Guan warns. "Without any new policies, these emitters are most likely putting us on a trajectory for 2.5°C rise in global average temperature," he says.

These unanticipated emissions require urgent non-emitting energy deployment across these emerging emitters, and faster and deeper reductions in emissions from other countries, say the authors. "We're calling for more attention on emerging emitters because their emissions are growing faster than we imagined," says Guan.

2.5°C scenario likely

Between 2010 and 2018, it appears that all major emissions growth has come from China, India and these emerging emitters, Guan explains. Based on data from the International Energy Agency, his group showed that the average annual growth rate of emissions was 6.2% – the average of all nations worldwide was 2%. Collectively the annual emissions of the emerging emitters grew by roughly 41% in this eight-year period.

In fact, the study showed that the aggregated emissions of emerging emitters were larger than India, "which caught our attention", Guan says. The two Asian populations giants, India and China, have actually gradually flattened their emissions, he says, and thus global emissions' increments are currently dominated by the emerging emitters.

"We are at a tipping point for energy transition," explains Guan. Emerging emitters are countries in development categories ranging from the least developed country to economy in transition. In most cases with gross domestic product per capita substantially less than the global average. From their analysis of historical emissions drivers, Guan's group shows that industrialization and extended energy infrastructure are the driving forces of the emissions surges and these factors are likely to continue to cause emissions to grow.

So, what can be done?

There are huge differences among these emerging emitters, notes Guan. Each has a unique economic status and disparate circumstances, he says.

Some emerging emitters have recognized the necessity of carbon neutrality and already started the energy transition to decarbonize already. For example, the study showed that emerging emitters, Uganda, Peru, and Colombia are already decarbonizing with carbon and energy intensity indicators both decreasing in recent years. They all also maintained population and GDP growth, Guan points out. "However, they absolutely have potential for lower carbon energy systems that will comprise hydro, geothermal, and solar energy," he says. "We will see a more promising model of development tomorrow than today."

This shows the relative increase between 2010 and 2018 of carbon dioxide (CO₂) emissions and Gross Domestic Product (GDP) for the 59 'emerging emitters', countries with emissions growing faster than the average of all nations' (excluding China and India). The clustering of low GDP per capita countries at the top of the chart suggests that growing economies with low GDPs tend to see their emissions increase significantly. *The lower grey lines marks the point where the CO₂ emission growth rate is the same as GDP growth. Countries above this line are on their way to continuing to steadily increase their CO₂ emissions.

Other countries rely on energy mixes that are more carbon-intensive, but cheap, which suits varied priorities, including meeting many of the United Nation's sustainable development goals that focus on better, more equitable living conditions. In 2017, the authors point out that emerging emitters were home to 698 million people living on less than US\$1.9 per day in purchasing power parity value.

"These economies are not decoupled from emissions, yet," Guan points out. The coupling of carbon dioxide emissions and gross domestic product is currently considered necessary in early stage industrialization. "Meanwhile, the annual costs of keeping emissions at a low level are in many cases 0.2%–4.1% of a countries' gross domestic product, so there are trade-offs with poverty reduction goals and low-carbon technology investment," says Guan.

"Emerging emitters need to decarbonize without jeopardizing living conditions and economic

development," he argues. He thinks that this will mean that emitters that are already industrialized should help by decreasing their emissions more to create more room for emerging emitters. Other countries should also provide support and assistance, technically or financially, to help the emerging emitters install the right technology as they industrialize, setting them a path towards a low carbon future.

Installing systems for solar, wind, hydraulic, and geothermal energy requires financial support from countries that have historically had large emissions and have mitigation experience, argues Guan. "We know that Denmark has invested heavily in supporting with climate-change adaptation in 24 countries, representing 70% of the global CO₂ emissions, including Kenya, South Africa, Egypt and Ethiopia, for example," says Guan. Emerging emitters Myanmar, Laos, Zambia and Ethiopia are all on their way to industrialization, and probably lack the means to install low carbon developments on their own, he says.

Playing out the scenarios

"If emerging emitters stop their emissions surging, and other countries stay on track for the 1.5° scenario – globally we're likely to land at a 2.2° rise in global average temperature," Guan says. The achievable rate of emissions reductions sits somewhere between the 2.5°–2.0° scenario and the 2.0°–1.5° scenario.

In an ideal world however, Guan says, emerging emitters reduce by nearly 4% a year and other countries reduce emissions by a significant 5% a year to pursue a global 1.5°C target. That's close to the goals of the 2.0° rise in temperature scenario for emerging emitters.

But if the emerging emitters aim to collaborate with other countries toward a common 1.5°C target, they need a huge amount of help from other countries, Guan stresses. For that reason, it's urgent that they get this help, he says.

"And of course, academia can work harder to call for more action from the non-emerging emitters," he says.

Guan co-ordinated this research for the Carbon Emission Accounts and Datasets, a group of experts from the United Kingdom, the US and China who work on emission accounting for China and other emerging economies.

TSINGHUA COMMUNITY



Zhang Li wins 11th Liang Sicheng Architecture Prize

Zhang Li, dean and professor of the School of Architecture at Tsinghua University, won the 11th Liang Sicheng Architecture Prize at an awards ceremony held in east China's Shanghai City on September 23.

The Liang Sicheng Architecture Award, sponsored by the Architectural Society of China (ASC) and supported by the International Union of Architects (UIA), is the highest honor awarded to architects and architectural scholars.

Zhang Li has oriented his academic studies to Urban Ergonomics, an inter-disciplinary domain focusing on human body and space, and the design of active urban spaces. He has been the architect-in-chief of Zhangjiakou Zone, the National Ski Jumping Centre (dubbed the "Snow Ruyi") and the Big Air Shougang (also known as the "Snow Flying Ribbon"), both for Beijing 2022 Olympic Winter Games. His other best internationally known works include Jianamani Visitor Center, and Xin-Jiu-Zhou-Qing-Yan' Roof Garden, China Pavilion 2010 Expo, etc. He has been awarded the title of National Master of Engineering Design and Geotechnique Investigation for his architectural contributions.

He became the fourth winner of the Liang Sicheng Architecture Prize from Tsinghua University. Three other receivers from Tsinghua University include Wu Liangyong, an academican of the Chinese Academy of Sciences (CAS) and the Chinese Academy of Engineering (CAE); Guan Zhaoye, an academican of the CAE; and Zhuang Weimin, an academican of the CAE.

The prize was jointly established by the ASC and the Ministry of Housing and Urban-Rural Development in the name of Liang Sicheng (1901-1972), the father of Modern Chinese Architecture and founder of the Department of Architecture at Tsinghua University, in 2000, to foster an innovative spirit among architects

and architectural workers and enhance the level of architectural design and relevant education.

The ASC collaborated with the UIA in 2016 to promote the internationalization of the bi-yearly Liang Sicheng Architecture Prize and honor renowned architects across the world.

The 10th and 11th Liang Sicheng Architecture Prizes were concurrently awarded in Shanghai as a result of the COVID-19 pandemic.

Winners of the 10th Liang Sicheng Architecture Prize include Arata Isozaki of Japan and Li Xinggong of China. Another recipient of the 11th Liang Sicheng Architecture Prize is Hu Yue of China.



Tsinghua SEM Dean Bai Chong-En elected as president of AAPBS

Bai Chong-En, dean of the School of Economics and Management of Tsinghua University, was elected as president of the Association of Asia-Pacific Business Schools (AAPBS) at the Council Meeting of the AAPBS Annual Meeting 2022, held in Brisbane, Australia, on Nov 21.



The meeting helps strengthen communication between Tsinghua SEM and leading business schools in the Asia-Pacific region and promote cooperation and development among AAPBS members.

The AAPBS is a regional, non-profit organization founded by 11 management schools in the Asia-Pacific region to promote and strengthen regional cooperation between management schools, to improve school management, and cultivate excellent management talents for regional economic prosperity.



The meeting explored ways to promote cooperation in business education in the Asia-Pacific region and worldwide, and envisioned the future of business education.



Professor XU Xin wins AIS Fellow Award

XU Xin, professor and associate dean of the School of Economics and Management of Tsinghua University (Tsinghua SEM), won the AIS Fellow Award at the Annual Meeting of the International Association for Information Systems (AIS) held in Copenhagen, Denmark on December 12, 2022.

AIS is the most authoritative academic group in the field of information systems. It has more than 5,000 members in the information systems discipline around the world. Its AIS Fellow Award aims to commend scholars who have made outstanding contributions and influence in research, education, and service in the field. Tsinghua SEM Professor CHEN Guoqing became the first scholar in the Chinese mainland to win this award in 2019. Professor XU Xin was the next to win, reflecting the international influence of the school's information systems discipline.

Professor XU Xin wins the AIS Fellow Award at the Annual Meeting of the International Association for Information Systems

XU Xin is the Starr Endowed Chair Professor of Tsinghua SEM and director of the Artificial Intelligence and Management (AIM) Research Center. He previously won the National Science Fund for Distinguished Young Scholars and has been selected as a national high-level talent. XU's research includes enterprise digital strategy and governance, as well as business intelligence and analysis. He has published more than 80 papers in international academic journals and at international conferences, 16 of which were published in UTD journals. His papers have 8,500 citations on Google. XU Xin's research achievements won the Best Paper Award at the International Information System Annual Conference (ICIS) twice, have been nominated for the Best Paper Award at

ICIS for four times, and have won the Best Paper Award at international academic conferences such as the American Management Annual Conference, the American Information System Annual Conference, and the Asia Pacific International Accounting Annual Conference. In 2016, he won the first Wujiapai Award of China Information Economics. XU Xin and Tsinghua SEM Professor ZHANG Xiaoquan won the MIS Quarterly Annual Best Paper Award in 2014. MIS Quarterly is one of the journals with the longest history and the greatest influence in the field of international information systems. It was the first time a scholar from the Chinese mainland won the award.

The research achievements of doctoral students directed by XU Xin have also won awards at international academic conferences, including the Best Doctoral Thesis Award in the field of online education at ICIS in 2020, the Best Doctoral Thesis Award at CIST in 2021, the Best Doctoral Thesis Award by Michael J. Shaw at WeB in 2021, and the Best Doctoral Thesis Nomination at ICIS in 2021 and 2022.

XU Xin has been actively promoting exchanges and cooperation between China's information systems programs and the international academic community for many years. He is now Chairman of the China Branch of the International Information Systems Society (CNAIS), a representative of the Asia-Pacific region of the Nomination Committee of the Information Systems Society (AIS), and a member of the Hong Kong Research Grants Council (RGC). XU has participated in and organized more than 30 international academic conferences as co-executive chairman, co-executive chairman of the Doctoral Consortium, and co-executive chairman of the Junior Faculty Consortium.



Yuan Shu: Promoting sustainable development through the BRI

Editor's Note

Tsinghua University plays an active role in promoting the 17 UN Sustainable Development Goals (SDGs) by nurturing innovative talents, carrying out relevant research, among many other important ways.

After graduating from Department of Foreign Languages and Literatures, Tsinghua University in 2020, Yuan Shu spent several months in Uganda, assisting with infrastructure projects under the Belt and Road Initiative (BRI) and providing vocational training for local laborers. Here she reflects on her Uganda experience and shares her thoughts on how the BRI is helping implement the SGD 9 of building resilient infrastructure, promoting sustainable industrialization, and fostering innovation and the SDG 4 of ensuring inclusive and equitable quality education and promoting lifelong learning opportunities for all.

I once was a student volunteer at the 2018 Beijing Summit of the Forum on China-Africa Cooperation and the Second Belt and Road Forum for International Cooperation in 2019. At these forums, I witnessed officials from various countries expressing their views about the BRI and their expectations for future development. Beyond official occasions, I also once served as an interpreter to assist the communication between local and foreign entrepreneurs looking for business cooperation.

I was fascinated by these experiences and how the BRI was helping build resilient infrastructure in various countries, which finally led me to Uganda in 2021.





Yuan Shu volunteered at the 2018 Beijing Summit of the Forum on China-Africa Cooperation

After completing my bachelor's degree, I worked as an assistant business manager for an overseas governmental EPC (Engineer, Procure, Construct) project in Uganda, overseeing the construction of a Skills Enhancement Centre that would offer seven vocational educational courses for the locals, as well as the supply of related vocational training equipment and extra engineering machinery equipment. All my experiences enabled me to get a closer look at how the BRI was contributing to infrastructure development in developing nations like Uganda.



The Owner's Office in Kampala



Project site meeting

Language barrier exists. When facing technical problems, translation becomes especially vital. A common problem overseas projects have to cope with is that skilled technicians aren't usually fluent English speakers. So sometimes, our engineers would explain it to me in Chinese, then I translated it for the Uganda staff. It took me time and effort to gain basic knowledge about construction design and civil work. But I also benefited a lot from this process, such as how to balance groups with different opinions and interests and respond accordingly to unforeseen demands or situations.

Negotiation will not work if it is not based on mutual understanding. It is not just about which technical standard to comply with but more about acknowledging that we are working with people from different countries with unique social and cultural backgrounds and the willingness to embrace differences and compromise for a "greatest common divisor". I believe this spirit is why our projects can be implemented despite many difficulties, and why the BRI is being accepted by more and more countries and regions worldwide.



A group photo after the equipment inspection

Sustainable Development as the Core

SDG 4 is about ensuring inclusive and equitable quality education and promoting lifelong learning opportunities for all. However, the statistics still show significant disparities in formal school education completion, especially among Sub-Saharan African countries. Vocational education offers access to life improvement for those who are educationally excluded or early school leavers. From another perspective, the local market requires skilled labor forces for industrial development, but the current formal education system is unable to respond.



Hawkers on the street

This is where our project of constructing a Skills Enhancement Centre to equip young people with mechanical, automobile, and agricultural machinery skills came in. But this is not where we stopped. However, there exist many vocational institutes in Uganda, established by the Ugandan government, established through international cooperation, or established by the private sector. But many face challenges like outdated or inadequate equipment for practicing, high entry fees, or poor operation and management.

Therefore, another part of my job involved training local people to use equipment and formulating an operation and management proposal for the Centre for its future operation. I participated actively in developing the proposal based on the Owner's requirements with colleagues from our Chinese headquarters and some famous Chinese vocational colleges. At the same time, I followed up with the Owner on preparations like recruiting potential trainees, establishing future operation teams, and



Meeting with the Owner and a potential partner

applying for Centre qualifications. I genuinely hope that the centre we built will benefit local people.

During my employment for the company, I also participated in a Preliminary Feasibility Study to share China's best practices on vocational education, training, and certificate issuance of engineering machinery operation with local stakeholders in future. By examining Uganda's vocational education strategic plan and the Chinese government's corresponding practices and conducting online and offline research on current training and certification institutes, we did a comprehensive study.



Field Trip to SANY Industrial Vocational and Technical College

As an old proverb in Chinese goes, give a man a fish, and you feed him for a day; teach him how to fish, and you feed him for a lifetime. I think this statement aptly describes what our project and all the projects under the BRI are trying to accomplish in the BRI countries like Uganda. Besides helping develop the necessary infrastructure itself, the BRI is helping enhance local capacity for future development. In this sense, the BRI is a genuine path to sustainable development for all its members.

Even though my stint in Uganda was short, it made me realize the BRI's true values. These values have now become my future pursuits as well.

Ma Yaoyao: My 365 days mission in SDG5

Editor's Note

Tsinghua University plays an active role in promoting the 17 UN Sustainable Development Goals (SDGs) by nurturing innovative talents, enhancing research, among many other important ways.

Today we hear the story from Ma Yaoyao, a graduate student from the School of Journalism and Communication, telling her experience advocating gender equality while working at UN Women China office.



Yaoyao in front of the UN compound

I still remember my excitement when I received the offer from the UN Women China Office last year. Even though the potential delay of my graduate study still concerned me, I knew I must take it. After all, you cannot refuse a chance to accomplish your childhood dream of working for the UN someday.

My only hesitation was the time conflict between the job and my graduation. The contract was for one year, and taking the offer meant I couldn't complete my graduate dissertation as planned, because both of them are highly time-consuming. But luckily, my college tutor and family were all very supportive of my decision to suspend my school work to take the job – then, the journey started!

The one-year experience in UN Women was challenging but rewarding. Unlike my prior internship in the UN HQ, the UNV contract counted me as the staff member, which meant more opportunities, especially the opportunities for you to lead and manage projects independently. Benefited from this, as part of the partnership team in the role of Gender Equality and Youth Engagement Associate, I was fully involved in several office partnership events, including the #RunForEquality charity run initiated with Xiamen Marathon, the Gender and Gaming series event partnered with Game For Peace, etc.

In these partnerships, I was the focal point of UN Women to communicate directly with partners, vendors, regional office and headquarter, responsible for the whole cycle of the event from concept note drafting to event implementation. The intense training consistently let me practice my capabilities in strategic thinking, flexible implementation, and effective communication.

The most impressive part of my work was the opportunity to participate in the coordination of the policy consultation workshop between the UN and the lawmakers relating to the second draft revision to the Law on the Protection of Women's Rights and Interests. This law was the first National People's Congress law specifically protecting the rights and interests of women and girls in China. This year's amendment was also regarded as an overhaul of the law first enacted in 1992 to make it adapt to the changing times. My role in this work was to coordinate and consolidate policy recommendations from different UN agencies, and discuss the relevant details with Regional Office's Policy Advisor to have UN Women's recommendations aligning with international normative framework. The process provided me an insight to the implementation of UN Women mandate in providing normative support to member state,



UN Women China Office's retreat in Great Wall

which is also the first one among the three. It goes without saying the importance of the law amendment, not to mention that as a national law, it impacts hundreds of millions of the women and girls in China including me.

My experience in UN Women also helped me build a more objective and comprehensive understanding on the UN. From the outsiders' view, the UN is always connected with high-level officials and meetings, and it sounds like the UN is inaccessible to the general public. But when you go into it, you will discover the organization is also dealing with complex internal and external situations - the difficulties in negotiating and jointly promoting the common agenda in member



The three-day office annual retreat focused on team management and leadership development

states, the localization and adaptation of the normative framework, also the UN as an established organization's evolution in the fast changing environment, and its future development, etc. But from another side, it may also reflect the fact that there still has lots of work to do and a long way to go in the achievement of the 17 SDG goals.

Besides those concrete works, I enjoyed the supportive and inclusive work environment in UN Women as well. I will never forget the talk with my supervisor during my first days in the office, who encouraged me to be bold and think big, to be more confident and aggressive. It was the time that I realized I was also a beneficiary of the gender equality spirit, empowering more women and girls to break the barriers, taking the lead and shaping the world. Every time when we ate food together, my special eating habits as an ethnic minority would be considered by my colleagues. It is an office composed of people from different countries and places with different living habits, which made it the best place for me to experience diversity and inclusiveness. I also met a group of young people with the same interests and faith as mine in development. We are friends more than colleagues.

A year slips away. Via this experience, I have reaped the firmness and confidence in following my own interest and taking it as my future career, which I believe will benefit me for a lifetime.



Yaoyao participated in the media workshop organized by the UN Women China Office

Why do these Tsinghua students love football?

Editor's Note

Football is a popular sport that receives love from all over the world. As the World Cup was going on, we invited our fellow TsinghuaRen to share their stories and passion for football.

Adrian:

Enjoying the charm of playing and watching football games

"Football is an intense but enjoyable sport, consisting of diverse tactical changes," says Adrian Jakubke, a German undergraduate student from the School of Social Sciences. His family has a deep relationship with football, as his father and grandfather were both professional football players in Germany.

The FIFA World Cup is the ultimate fiesta for football lovers across the globe. Adrian once joined the activity held by the German Embassy of China, to watch the semi-finals and finals of the World Cup as the German team was fierce in the games. The crowd went crazy after Germany won the tense match against Argentina, and brought home the trophy. The excitement lights up Adrian's interest in football and he started to engage himself in the field and watch the football competitions. Since then his favorite sport has become football.

Adrian recalls that there's a popular football game played during his high school called "WonBa". "WonBa" is a football trend in Korea that means "One Bounce", the players need to stand in a circle and kick to lift the ball in one bounce then the next player continues. If the player failed to kick it up and lets it touches the floor twice, the player loses the game. A player needs to eliminate all the others to win the game. Adrian thinks "WonBa" is not only an interesting game to play



but also a game to practice his football skills, as he gets to practice his control of the ball and agility.

Besides playing football, Adrian also enjoys watching football matches. It's FIFA season again. Lionel Messi is his favourite football star. "Messi doesn't have many fancy moves, but his dribble is just fascinating. I think it's just pure talent," says Adrian. "Also, this is Messi's last World Cup." He hopes that Messi leaves no regrets on the field.



Zhu Hongxu:

Football has become a part of my life

"Playing football is a kind of enjoyment, in which I can think about the interaction between time and space," Zhu Hongxu, a graduate student in the School of Journalism and Communication of Tsinghua University(TSJC) said.

Growing up in a football family, Zhu Hongxu was taught to play football from the age of four. Till now, the best coach in his mind is still his father. "He used himself as an example to teach me how to always remain humble and disciplined while believing in myself."

Zhu used to be a member of the men's football team of Tsinghua University. On the field, Zhu and his teammates "dedicated their best youth age to Tsinghua". Every day, they kept training for about two hours under great pressure of studying. Every member of the team practiced positively with the common faith, no matter if they were key players or substitutes.

Apart from the school training, he also played football with different people every week, which provided him a vision of football's diversity and possibility. "Football has become a part of my life."

Zhu Hongxu is not only a player but also the volunteer coach of the female football team of TSJC, which

provides him with a new vision and also a more comprehensive understanding of this sport.

"I hope to pass on what I learned from my coaches to them, not only the skills of playing football but also the power of creativity and responsibility," Zhu said. "It is hard for these girls to become professional athletes from zero, but they can still harvest value in limited training time."

"Learning to play football is also learning to be mature." In his eyes, football is an essential medium for everybody to learn to face uncertainty and find the answer to life.



Meng Weisa:

I fell in love with the collective

"I was recruited by the seniors of the football team when I was a freshman." Meng Weisa, a member of the women's soccer team of the Department of Water Conservancy and a member of the women's soccer team of Tsinghua University, always shines in her eyes when she mentions football.

"It feels like girls who play soccer would be cool," Meng said. After college, she joined the women's football team of the department and school, where the coaches organized training and practiced basic skills.

Meng has suffered a number of injuries in football. But she never gave up the sport of football, kept trying and practicing, improving her level and sweating on the green field.

Meng plays in the Capital University Tournament every year. The game makes her feel the revolutionary camaraderie of teammates fighting side by side and advancing together, which makes us more cohesive and deeper. "Isn't the charm of competitive sports like football that the players on the field fight side by side, sharing honor and disgrace, and finally fighting back?"

When it comes to the World Cup, Meng believes that the World Cup is a carnival for football fans. "Football is super cool. The most important thing isn't the sport

itself, but the spiritual wealth and fellowship it brings." For Meng, football is more than that. She hopes to better introduce the sport to students who don't know much about football.



Kang Tingyuan:

Football has taught me many life lessons

"Football is an indispensable part of my life, also a good regulator between study and work," said Kang Tingyuan, an undergraduate student from the School of Vehicle and Mobility at Tsinghua University.

Starting to play football at 6 years old, Kang Tingyuan was deeply affected by his father, who was also a skilled football player.

Thin and slight, Kang's physical talent was not excellent at first, lagged behind his peers in speed and strength for a long time. In senior high school, he practiced more with the coach after regular training with the school team to improve his physical condition. Gradually, he developed the habit of physical training and finally made up for his weaknesses in physical fitness.

It is inevitable to suffer from physical injury and mental loss during the football journey. But Kang has learned to become more firm and indomitable. "One of my coaches has told me that the most important thing in the face of obstacles is the belief in myself. I must believe I can do that, in every physical defense, whenever I feel exhausted..." Kang said, "It's more about overcoming my own."

Football also provides him an outlet for emotion. Whenever he felt stressed or anxious, sweating on the football field could help him to be calmer and reflect peacefully.

Through playing football, he met many friends, and his girlfriend. "Football is a sport of communication between people. Competition and training are both processes of continuous interaction with teammates, coaches, opponents, referees, and spectators," says Kang.

DIVERSE CAMPUS



Tsinghua holds creative contest for freshmen

The 12th Tsinghua University Creative Contest for freshmen was held from October 3 to 6.

The Tsinghua University Creative Contest aimed to further unleash the creative potential of students and encourage them to capture inspiration, come up with creative ideas, take part in practical activities and showcase the image of Tsinghua University. This year's sub-competition for freshmen was designed to provide them with a platform to exchange and demonstrate their talent in sci-tech innovation and embark on a journey of sci-tech innovation.



Zeng Rong, vice-president of Tsinghua University, visited the competition sites. Teachers from Tsinghua X-lab, the Fundamental Industry Training Center, the Office of Technology Transfer, the schools and departments at Tsinghua University acted as judges in relevant competition programs.

Zeng held in-depth exchanges with contestants, hailed their creative products, and gave them advice on career development. He said that it is of great importance for students to figure out what they would like to do, take part in valuable activities, and make full use of personal talent instead of merely focusing on what they are capable of doing.

The competition consisted of five tracks themed on healthcare, sustainable community and urban development, arts, culture and sports, information technology, and campus optimization. Each track awarded the top three contestants.

The preliminary competition, which was held on October 3, drew the attendance of over 300 students. Contestants put forward their creative solutions to pragmatic problems and established 28 sets of exhibition panels at the sites.

There was an environmental design made of chopsticks and straws; some contestants used biological sensing technology to promote the recycling of facial masks; other participants anticipated the development trend of AR glasses and drew inspiration from laundry.

The final of the competition was livestreamed at the School of Economics and Management and attended by over 300 people in person and via video link. After reviewing, a total of 15 projects won the awards.

Huang Jiawei, from the School of Architecture, won the golden award for the utilization of the internet of things (IOTs) in the scanning and diagnosis of motor faults.

"I have deeply realized the strength of teamwork and the happiness of innovation in the midst of idea generation, plan refinement and poster design. The contest has helped me acquire more knowledge, expand my horizons and strengthen capacity building in the accessibility of information," said Huang Xiaobin, a freshman from the Department of Engineering Physics.

Kou Zehao, a freshman from Xingjian College, said that he has become more willing to conduct observations of everything around him and hold exchanges with friends over common topics, after participating in the competition.



Tsinghua holds young teachers' teaching competition



Tsinghua University held a young teachers' teaching competition from Oct 28 to 30.

Wang Xiqin, president of Tsinghua University, Xiang Botao, deputy secretary of the CPC Tsinghua University Committee, and Peng Gang, vice-president of Tsinghua University, gave their instructions on site.

A total of 110 teachers from 41 departments and

schools competed in the three groups of Engineering, Science and Medicine, and Arts. Eighteen teachers were selected from the University as judges to offer professional guidance.

The competition was initiated back in 2004 and has since become a major measure to train leaders of various disciplines and core members of teaching and research for the university.



Tsinghua Southeast Asia Center Campus is launched in Bali, Indonesia

Acting on the Global Development Initiative for Achieving UN SDGs

On November 16, 2022, the launch ceremony of Tsinghua Southeast Asia Center (Tsinghua SEA) campus was held in Bali, Indonesia as the 17th summit of the Group of 20 (G20) opened. More than one hundred people, including Wang Hongwei, Vice President of Tsinghua University, Luhut Binsar Pandjaitan, Coordinating Minister of Maritime Affairs and Investment, Indonesia, Sandiaga Uno, Minister of Tourism and Creative Economy, Cherie Nursalim, Vice Chairman of United in Diversity Foundation (UID), Gordon Duff, Honorable President of United in Diversity Foundation, Tantowi Yahya, President of United in Diversity Foundation, representatives from the School of Continuing Education, Office of International Affairs, Medical School, Institute for Sustainable Development Goals, Education Foundation of Tsinghua University as well as other related organizations, alumni representatives from Tsinghua University in Indonesia, and representatives of Indonesian universities and NGOs attended the event.

Wang Hongwei said in his opening remarks that Tsinghua SEA is an exciting new step within the

framework of Tsinghua Global Strategy. With the Center as an exchange platform, Tsinghua and UID have joined hands with partners from Southeast Asia and beyond in developing talent training programs, academic exchange and cooperation, and keeping our commitments to the United Nations Sustainable Development Goals (SDGs), the Global Development Initiative proposed by President Xi Jinping, and the New Era Bali Kerthi Economic Roadmap launched by President Joko Widodo.

Wang reflected on the development path and achievements of the Center since 2018. The Center has been advancing talent cultivation, academic forums, cultural exchanges and other aspects. At the 70th anniversary of the establishment of the China-Indonesia diplomatic relations, Indonesian President Joko Widodo sent a special letter to acknowledge the positive role played by Tsinghua Southeast Asia Center in promoting education and cultural exchanges between the two countries. The successful completion of the Happy Digital X Program in 2021 has laid a good foundation for the future training of



Wang Hongwei speaks at the launch ceremony

more outstanding and innovative young people with an international perspective. Furthermore, during the COVID-19 pandemic, the Center has also held forums and discussions on challenging issues of our time, including public health, digital transformation, and AI governance, to facilitate more extensive and in-depth cooperation between China and Indonesia and to make positive contribution to building a better, stronger and healthier future.

Wang said that Tsinghua SEA would become a key platform to promote the cooperation and exchange between China and Indonesia, in Southeast Asia, and in the global scale towards a balanced, coordinated, and inclusive community. He said that Tsinghua will attach more importance to the cooperation with its global partners to bring about changes and solutions for the world. Tsinghua is looking forward to exploring emerging opportunities for greater collaboration and contributions for the world development in the long run.

Cherie Nursalim said in her remarks that the opening of Tsinghua SEA campus marked the successful start of cooperation between UID and Tsinghua University. The Bali Campus, where the Center is located, is a global learning hub that will provide a wealth of



Cherie Nursalim speaks at the launch ceremony

content for people from all walks of life and a strong complement to university studies. In addition, the Center will provide full support to the participants in their networking, capacity building and spatial development to create innovative solutions that directly contribute to the UN SDGs.



Gordon Duff speaks at the launch ceremony

In his opening remarks, Gordon Duff said Tsinghua and other universities in the world with the best science, technology and research are very welcome to come to Bali to conduct cooperation, so that the best and brightest from all over the world can share and propose solutions to each other and contribute their wisdom to create a better life.



Luhut Binsar Pandjaitan and Sandiaga Uno

Luhut Binsar Pandjaitan and Sandiaga Uno addressed the launch ceremony respectively. They started with congratulations to UID and Tsinghua and expressed that it is of special significance to witness the opening of the Tsinghua SEA campus in Bali, thanked Tsinghua University for its contribution in the diversified cooperation between China and Indonesia and expressed hopes that the Center will become an important platform for China-Indonesia education cooperation and global innovation cooperation.



Launch ceremony



Wang Hongwei exchanges views with Cherie Nursalim

Before the launch ceremony, Wang Hongwei and his delegation held a meeting with Cherie Nursalim, Vice Chair of GITI Group and UID. The two sides reviewed the work carried out in the past four years through joint efforts and thanked each other for their efforts and contributions to the official launch of the park. In addition, they had a full exchange of views on the development of academic exchange activities and the operation and future development of the campus after the opening.

Afterwards, Wang Hongwei had a cordial exchange with some alumni representatives in Indonesia. Wang introduced to the alumni the important achievements made by the University in recent years and the progress of the university's globalization, and acknowledged the positive role alumni have played in the mutual accommodation and mutual learning in various fields between China and Indonesia. He also

thanked the alumni for their constant attention and support to the work of the University and hoped that they would actively participate in the construction and development of the University in the future, especially support the development and construction of Tsinghua SEA, help the implementation of the University's 2030 Global Strategy, and contribute to the high-quality development of Tsinghua as a world-class university with Chinese characteristics.

During his visit to Indonesia, Wang also attended the special cooperation meeting of the China-Indonesia Joint Research Center for Vaccines and Genomics, and discussed the cooperation between China and Indonesia in the fields of vaccines and genomics and other related biological medicine. Representatives of medical colleges, Indonesian universities and Chinese and Indonesian pharmaceutical companies attended the event.

Special Cooperation Meeting of China-Indonesia Joint Research Center for Vaccines and Genomics

As an important part of the full implementation of Tsinghua's global strategy formulated in 2016, Tsinghua Southeast Asia Center (Tsinghua SEA) was founded in October 2018. The Center is managed and operated by the School of Continuing Education, Tsinghua University, and UID has assisted in the operation and construction of related facilities. Since its establishment, the Center, located in Indonesia with impact on the whole Southeast Asia, has actively



Wang Hongwei and his delegation exchange ideas with alumni

engaged in personnel training and people-to-people exchanges, and contributed to the Belt and Road Initiative and the realization of the United Nations Sustainable Development Goals. With the Center, Tsinghua University will work with global partners to create a platform for sharing and innovation with academic, business, government and other social sectors, and actively explore education innovation and education ecosystem construction.

The Tsinghua SEA Campus in Bali is now officially operational after nearly four years of design, preparation, construction, furnishing and decoration since it broke ground in October 2018. The campus covers an area of 17,000 square meters, and the floor area is about 5,500 square meters with a total of five floors. The building can accommodate more than 300 people to work or study at the same time.



Special Cooperation Meeting of China-Indonesia Joint Research Center for Vaccines and Genomics



Tsinghua Southeast Asia Center

Advanced innovative research: Social-emotional intelligence I

Editor's Note

The COVID-19 pandemic has posed great challenges on many, including the students and teachers of "Advanced Innovative Research: Social-Emotional Intelligence I", a course taught by the Department of Psychology. Let's see why these problems matter, and how they are innovatively coped with.

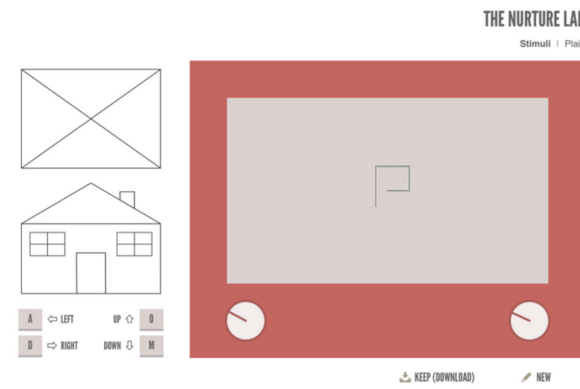
In many respects, "Advanced Innovative Research: Social-Emotional Intelligence I" is not a common course. It is taught by 4 professors separately, albeit there isn't that many students. For instance, Prof. Wu Zhen is only teaching 3 students this year.

However, this is normal because the course is hard. Students have to complete a research project on social-emotional intelligence and write an empirical research paper that is ready for publication.

On top of that, the COVID-19 pandemic is taking the difficulty to the next level, for all the innovations to be used in carrying out experiments and collecting data through online platforms.

Liang Yiming, for example, has been doing a research on the mind-mindedness of parents.

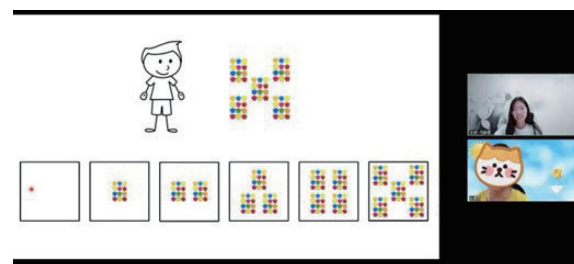
To investigate whether parents see their children as individuals with independent thoughts, he invited parents to draw a picture with their kids on the computer, with the parents controlling A key and D key to draw horizontal lines and the children controlling O key and M key to draw vertical lines. Observing the process reveals the parents' minds – did they command their children, or did they listen and discuss?



The webpage Liang uses to collect data.

Ma Xinming and Dai Yiqing both looked into preschool children's stereotypical views on gender, but using disparate methods.

Ma invited children to predict and compare a girl and a boy in terms of their abilities and actions – "How many stickers will he or she share with you? How many questions can he or she answer correctly? Who can do better?"



Ma asking the child to predict the number of stickers the boy would share.

Dai, on the other hand, employed a method of storytelling. She told stories, and then invited the children to guess the gender of the protagonist – "The protagonist would like to know what happened, if a person is smiling happily. Do you think the protagonist is a boy, or a girl?"

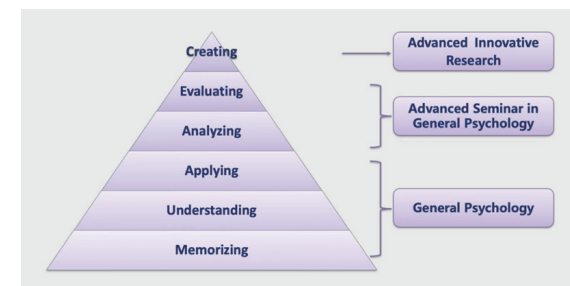


Dai telling a story about a protagonist with unknown gender.

After collecting first-hand data, they will code the information obtained and use it in their research paper.

As the course's name suggests, the research topics are all questions under the theme of social-emotional intelligence, the process through which individuals acquire and apply the knowledge, attitudes, and skills to understand and manage emotions, set and achieve positive goals, feel and show empathy for others, establish and maintain positive relationships, and make responsible decisions.

Selecting a research topic, designing a research, obtaining and analyzing data, and finally writing a paper, this is what the course "Advanced Innovative Research: Social-Emotional Intelligence I" looks like. Before taking this course to actualize a research project, students would have to first take a lecture course to learn all fundamentals of psychology, and then a seminar course to propose and refine the research design. Targeting third-year and fourth-year undergrads who wish to dedicate themselves in the research of psychology, this single-semester course at the top of the learning pyramid provides students an opportunity to dig deep into a specific field of psychology, with one-on-one personalized guidance to complete the whole procedure of a research project.



From memorizing, understanding, applying, to analyzing, evaluating, and lastly to creating, students progress through taking the 3 corresponding courses.



Wu (top-left), Liang (bottom-left), Ma (top-right), and Dai (bottom-right) meeting online for discussion.

To be a good researcher, the prerequisite is being innovative. This was the fundamental idea when the course was designed.

"Innovation isn't coming from nowhere", said Wu, "it is built on top of the understanding, mastering, evaluating, analyzing of knowledge, as well as hands-on training." So, she proposed the 3 stages of cultivating innovative talents at undergraduate learning – from critical reading, evaluating and writing, to project-based academic abilities training and honing, and lastly to supervised, original and open, academic research. The 3 stages aim to eventually prepare students to propose, investigate, and solve problems innovatively.

Promoting innovation through the training of critical thinking, reading and writing.

"Advanced Innovative Research: Social-Emotional Intelligence I" belongs to the third stage, which focused on getting hands-on experience of scientific research. However, under the COVID-19 pandemic, researchers have to change their ways of carrying out experiments, or even cancel them. Many teachers may switch to reading papers only.

Nevertheless, Wu insists on giving her students a chance.

"Innovative abilities aren't cultivated by hollow words, but should be trained by first-person experiences. Do the experiment, interact with the children, and you will see a different world."

Dai surely agrees. "I feel the fun side of doing research! Unveiled, thus intriguing, hence worth exploring."

SPECIAL

THE 20TH CPC NATIONAL CONGRESS

Tsinghua students share views on 20th CPC National Congress

On Oct. 16, the Communist Party of China opened its 20th National Congress at the Great Hall of the People in Beijing. Xi Jinping delivered a report to the 20th National Congress of the Communist Party of China (CPC) on behalf of the 19th CPC Central Committee.

Many Tsinghua students watched the 20th CPC National Congress online and were encouraged and inspired by the report.



Students from various schools and departments at Tsinghua University lauded China's achievements over the past decade and discussed the significance of the National Congress at an event held on campus. The event, "Living China: What We Learn from the 20th CPC National Congress," was organized by the International Students and Scholars Center. More than 30 international students and scholars participated in the event.



Here, several Tsinghua students would like to share their opinions.



喜喜 Cécile Cholet (France)

Student from School of Humanities

As an international student studying in China, I think it is fundamental to get to know more about China's political system. The discussion held at Tsinghua University about the 20th National Congress shed new light on my comprehension of its implications and helped me grasp the stakes of this five-year congress. We had the opportunity to deepen our understanding of Chinese foreign policy, cultural policy, and educational policy notably regarding international students in China and so on.

I will follow closely the 20th National Congress because I think it is not only an important moment in China, but the policy directions proposed by the 20th Congress will also have international repercussions.

can only spread Chinese stories better from our own perspective through constant in-depth understanding of this country.

I have witnessed the huge changes in China during my years of studying and living here. In the past decade, China has become stronger in terms of economy, politics and environment. I have witnessed the improvement of Beijing's environment, the basic elimination of heavy pollution weather, and the increase of greenery, all of which proved that China is moving towards a greener and more environmentally friendly direction. After we-international students understand these, we should spread the voice of China, share our own Chinese story with others in terms to build a community with a shared future and introduce this country to the world.



金佳允 Kim Ga Yoon (Republic of Korea)

Student from Language Centre of Tsinghua University

For me, China is a country of inspiration and opportunity. From the moment I decided to study Chinese literature to coming to Tsinghua University as an exchange student, there is nothing unaffected by China. China's history, culture, customs and charm from all over China have been a great driving force for me to continue to explore Chinese, and my experience in Tsinghua has further grown my curiosity and ability to explore China.

I was impressed again in this exchange as discussing the value of CPC with students and teachers of various nationalities, which gave me a deeper understanding of China's globalization status and its impact on global development. I hope that I could continue broadening my perspective on China's remarkable development and potentials through these exchange opportunities.



尤丽娅 Temelidi Yulia (Russia)

Student from School of Social Sciences

I watched the opening ceremony of the 20th National Congress of the Communist Party of China. The need to improve the influence of Chinese culture was raised at the meeting, which gave me a lot of inspiration. As foreign students studying in China, we

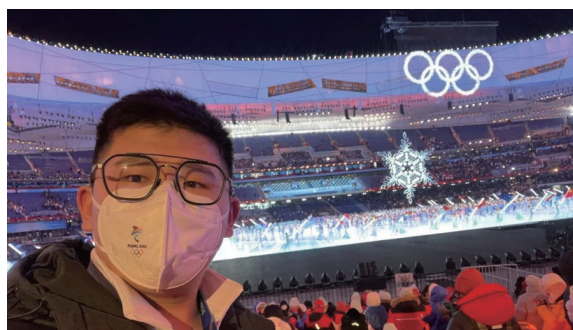


徐立桓 Ryan (HK, China)

Student from School of Social Sciences

I think it was an inspiring start to the 20th National Congress of the Communist Party and it serves as a lighthouse of China's development in the next five years. The report by President Xi clears the road ahead for China in this era of uncertainty. To accelerate green development, technological advance and many more directions, I believe they will be fundamental to China's future.

Particularly, I can see central government's hope and support for HKSAR. With Hong Kong being mentioned in President Xi's report, I'm certain that the development of Hong Kong will continue with a steadfast pace in the future.

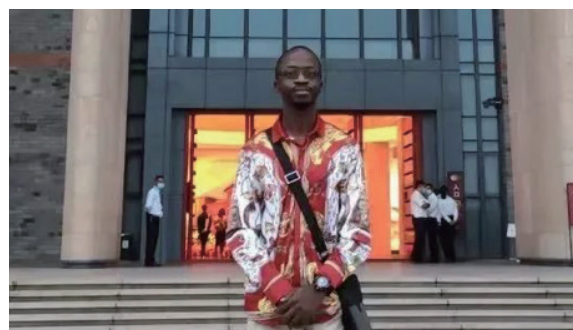


徐健朝 Xu Jianchao (China)

Student from Department of Construction Management

Every national congress of CPC marks a milestone of the development both for the party and the country, and will give new impetus to the great rejuvenation of the Chinese nation through overall reform on major policies and principles.

"The CPC has secured historic achievements and seen historic changes in the cause of the Party and the country over the past decade," said General Secretary Xi Jinping in his report addressed to the congress, which covers a comprehensive range of CPC's central task, socialist modernisation, national security, etc. "The country is its people and the people are the country." As a probationary Party member, it is my great honour to join the Party as CPC starts a new journey forward. I will firmly adhere to the principle of serving the people wholeheartedly, and solemnly strive for the prosperity of the nation and the world, and for the better future of the people and the mankind.



高飞 Patrice Monkam (Cameroon)

Student from Department of Automation

During the report, President Xi elaborated on the great achievements and progress made by China for the last 5 years, some key guiding strategies of the party to reinforce China's development as well as the future plans for the next few years.

These recent achievements made by China under the CPC leadership have clearly demonstrated the efficiency and effectiveness of the Socialism with Chinese characteristics. Specifically, one of the key CPC tenets, the people-centered development strategy has been very effective as China has been the first country worldwide to lift all its people out of poverty. Besides, President Xi emphasized on the importance of unity, and called all CPC members to come together to build a stronger and modern socialist China in all respects.

China's connectivity and inclusiveness resonate with the world: John Paul Grima

John Paul Grima is an instructor in academic English at Tsinghua University's Language Centre, where he and his colleagues design and facilitate courses that improve the language and international competencies of Tsinghua students.

Ahead of the 20th National Congress of the Communist Party of China, he reflected on the development of Tsinghua in recent years, shared his expectations for the upcoming Congress, and talked about China's constructive role on the world stage.

Here is the full Q&A with John Paul:

Q: How would you describe your Tsinghua experience as a faculty member?

John Paul: Tsinghua has an inclusive and team-oriented culture. There is a strong sense of shared purpose and collaboration in the classroom, on the Tsinghua campus and in Tsinghua's global community. Tsinghua's students are exceptionally talented and motivated. All of these factors make being a faculty member exceptionally rewarding and inspiring.



Q: Since you have been at Tsinghua for the last five years, what are some of the biggest changes you have noticed during this period?

John Paul: The first thing that comes to my mind is Tsinghua's openness and international engagement. In the past five years, Tsinghua has implemented its first global strategy, established a more influential overseas presence and initiated a number of university networks. These have allowed Tsinghua to further

expand its global reach and impact. At a time when the world has undergone complex changes and is facing urgent challenges it is clear that cooperation is needed more than ever. Tsinghua has responded to the call and is fulfilling a leadership role in higher education, enhancing collaboration and impact with its university partners around the world.



Q: What are your expectations for Tsinghua in the next five years?

John Paul: Tsinghua's pursuit of excellence, its historical achievements and global aspirations give me confidence in the next five years and beyond.

When President Xi visited Tsinghua University in April 2021, he called for building platforms for international exchanges and cooperation in education and culture as a joint response to global challenges. As an international faculty member of Tsinghua University, this particularly resonates with me. It reminds me that Tsinghua's role in talent cultivation and global collaboration is more important than ever.



Q: What are you looking forward in the upcoming 20th National Congress of the CPC?

John Paul: The 20th National Congress is a historic occasion. One of the aspects I find extraordinary about the National Congress is the representative profile of its delegates. They come from all areas of China and from all walks of life, including ethnic minority groups and grassroots representatives.

In the context of challenges facing China and the world, such as climate change and public health, I'm looking forward to understanding delegates' policy objectives and insights.



Q: What kind of role do you expect China to play in the future?

John Paul: There are many aspects which could be explored but for me the defining feature is China's connectivity and inclusiveness. Since I first visited China in 2007, major policies and projects have been realized. For example, the eradication of poverty; the rollout of high-speed railway that connects rural regions to cities; the successful hosting of two Olympic games; and, the promotion of multilateralism in the Belt and Road Initiative and many other regional and international platforms. Initiatives such as these demonstrate China's commitment to bringing people together, and prioritizing the lives and livelihoods of the people. As China's development story and contributions continue to resonate around the world, there is a growing recognition of China's role in the world. For example, China's constructive role in the global economy, its efforts towards the UN's sustainable development goals, its breakthroughs in new frontiers of human exploration in space and scientific discovery, to name just a few. The future is brighter because of China's role in the world!

China's tremendous efforts in research and development will pay off: Patrice Monkam

Patrice Monkam is currently studying for a PhD degree in control science and engineering at Tsinghua University. He is from Cameroon, a country located in central Africa. His areas of interest include image processing analysis, artificial intelligence, medical imaging, deep learning, sustainable development and entrepreneurship.

Q: How would you describe your Tsinghua experience as a student?

I have been studying at Tsinghua for over three years now. I am very grateful and honored to study at one of the world's first-class universities. These few years spent at Tsinghua University have made me rediscover myself. The university is equipped with first-class learning facilities (laboratory research equipment, canteens, dormitories, gymnasiums,



etc.), which are of crucial importance in the students' academic outcomes. I have been involved in many extracurricular activities, including various volunteering services, company visits, cross-cultural events, international student organization leadership, etc., which have helped me improve my global

competence and social skills. Despite being one of the first international students of my supervisor, he believes in me and lets me participate in various research projects conducted by our laboratory. Under his kind supervision, I have been able to make some breakthroughs in a field that was not explored before by our laboratory. I have met many wonderful friends from every corner of the globe who do care for and support me whenever called upon. I am so fortunate and blessed to be in an environment that inspires me, supports me and provides me with opportunities to explore beyond my limits.



Q: What are some of the biggest changes you have noticed in Tsinghua during the last few years?

In the last few years, I have noticed Tsinghua University become a "global village". Its openness and connection to the rest of the world have significantly improved. The number of international students and foreign countries represented, the number of international and joint-degree programs and the number of outstanding research outputs acknowledged by the international community have seen remarkable improvement. Besides, as a student who has been on campus since the beginning of the COVID-19 pandemic, other biggest changes include technological revolution and adaptive transformation. Unlike other universities around the world that had to go on break, Tsinghua University developed advanced online learning platforms for its students. In addition, many teaching buildings, student dormitories and canteens have been renovated so as to update them with state-of-the-art equipment and devices.



Q: What would you say about the disciplinary development of your field during the five years and the role Tsinghua faculty has played in the development?

My PhD research focuses on the application of deep learning to medical image processing and analysis. There have been remarkable advances in this area in the past five years. Specifically, numerous clinical decision support systems based on artificial intelligence have been developed to enhance the diagnostic accuracy of various cancer types and cardiovascular diseases. Many of these breakthroughs have been made by experts from Tsinghua University. In a nutshell, Tsinghua University is playing a crucial role in the development of new technologies for medical diagnosis and treatment, and has become part of the leading institutions in interdisciplinary research.



Q: what are your expectations for Tsinghua and China in the next five years?

I look forward to seeing Tsinghua University achieve more global recognition, openness and international cooperation. I believe that researchers from Tsinghua University will continue making great breakthroughs in many critical sectors, such as artificial intelligence,

medical treatments, renewable energy and environmental protection. As a country's future depends on its research outputs and problem-solving capacity developed by its various research institutions and universities, I believe that China's tremendous investments and efforts in research and development will make it become a prosperous country with a more stable and powerful economy.



Q: How did you see the significance of the CPC Congress?

Before this year's CPC Congress, which started on 16th October, I got to know more about CPC and CPC Congress. Last year I started getting more interested in understanding the "miracle" behind the high-speed

development of China as well as its outstanding achievements. It is the highest body within the CPC that provides a platform to discuss important changes in the top-level leadership and constitution of the Party.



Q: What role do you expect China to play in the future?

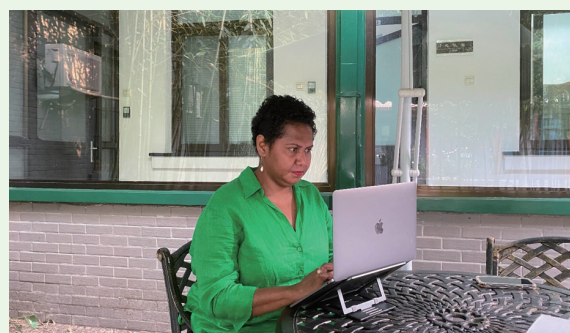
I expect China to continue playing an important role in building a more united and prosperous world where resources and experiences are shared to assist those in need. I believe that China will refine its opening-up strategy so as to facilitate more international cooperation and partnerships, and enable other countries to benefit from its resources and experiences.

China's contributions to world development will grow further: Maria Vula

A senior Fijian journalist, Maria Vula is the first student from her home country to be enrolled in the Global Business Journalism master's program of the School of Journalism and Communication at Tsinghua University. Currently in her final year, this Managing Business Editor of the Fiji Sun, the biggest daily newspaper in the Pacific Islands, is busy not only finishing off her studies, but also exploring China and Chinese culture and understanding the world's second-largest economy.

As China hosted the 20th National Congress of the Communist Party of China (CPC), Maria shared her Tsinghua experience so far and her hopes and expectations for China.

Read her full Q&A here:



Q: How would you describe your experience as a Tsinghua student?

Maria: Tsinghua University is living up to its reputation as a top university bridging China and the world.

Over the past 110 years, Tsinghua has taken root in China, establishing fine traditions of patriotism, dedication and the pursuit of excellence, and nurturing generations of outstanding talents. I feel ecstatic to be part of this ever-evolving tradition. Tsinghua campus life is amazing and gratifying as it presents many opportunities for students not only in education, but also in getting involved in many diverse events and activities. I am fortunate to be learning from exceptional professors who inspire me and other students to embrace excellence in every field whilst studying at Tsinghua.



Q: What are some of the biggest changes you have noticed in Tsinghua?

Maria: With the onset of the COVID-19 pandemic, in the last two years, education pretty much shifted from traditional classroom teaching to online education all over the world. During my first semester in the fall of 2021, and my second semester this year from February to June, I studied online and the pandemic presented an opportunity to use new technologies. During my last six months on campus, I noticed that there are more international students now living on campus, which is good.

Q: How would you see the disciplinary development of your field during the past five years?

Maria: The field of journalism and communication has been undergoing a rapid transformation. I believe that the Tsinghua School of Journalism and Communication is constructively playing a critical role in China's academic, political, and media circles, because of the amazing efforts put in by the top-level TSJC professors.



Q: What are your expectations for Tsinghua in the next five years?

Maria: I am looking forward to seeing Tsinghua University continuously grow into a more world-class university. Tsinghua will be at the forefront of educational innovation and research and in areas with long-term strategic significance. I expect to see the University give more emphasis on sports activities for its strong sporting culture and tradition.

Q: In your opinion, what is the significance of the National Congress of the Communist Party of China?

Maria: It is the most important five-yearly Communist Party of China (CPC) Congress that sets out targets, tasks and major policies for the cause of the Party and the future of China. The representatives of this Congress are chosen from all walks of life in China, including diverse sectors, private and public institutions.

Q: What will you be watching for during this year's National Congress?

Maria: What interests me about the upcoming National Congress of CPC is the selected lineup of representatives who were elected after a meticulous election process. I look forward to their presentation of the opinions and requests of Party members and the public.

Q: What kind of role do you expect China to play in the future?

Maria: In the future, I see China maintaining its sound economic momentum and further enhancing its commitment to continue opening-up and expanding its market. Fiji and China enjoy a very close and friendly relationship that continues to grow and

expand in a wide array of sectors. During the visit of the Chinese State Councilor and Foreign Minister Wang Yi to Fiji early this year, Fijian Prime Minister and Foreign Minister Frank Bainimarama said Fiji stood ready to deepen bilateral relations with China and expand cooperation in various fields including infrastructure, agriculture, and fisheries, capacity building and sustainable development, strengthening the partnership between the two countries. PM Bainimarama also noted that Fiji will continue to firmly support the one-China principle. In terms of the Belt and Road Initiative (BRI), as long as Fiji fosters a friendly bilateral relationship with China and a very welcoming and business-conducive environment, the



BRI will continue to play an important and significant role in improving bilateral relations between the two countries on all fronts.

China will promote building human community with a shared future: Temelidi Yulia

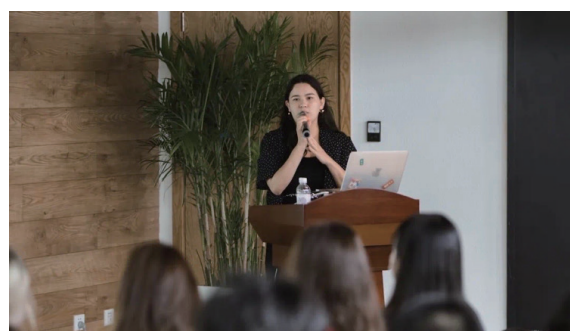
Temelidi Yulia is a third-year Russian student in the School of Social Sciences at Tsinghua. As the 20th National Congress of the Communist Party of China concludes, she shares her life at Tsinghua, her reflections on China's development over the past decade, and her expectations for China in the future.

Q: How would you describe your Tsinghua experience as a student?

Yulia: My life in Tsinghua is unbelievably full and plentiful. Originally, my expectation was more about endless learning, but after coming to Tsinghua, I found that there are a lot of associations in Tsinghua University, and there were many activities that I could participate in, which has also made my life more colorful. If I use a word to describe my life in Tsinghua, it would be plentiful. My whole life here has been moving really fast, both on academic and extra-curricular aspects. This also made me learn a lot. In these years, I became more reliable and strong in a certain way.

Q: What are some of the biggest changes you have noticed in Tsinghua during the past years?

Yulia: As far as Tsinghua is concerned, I don't think it has changed much. Maybe my time in Tsinghua is relatively short, so I haven't witnessed any great



changes. But maybe what I can see is a change in students. Nowadays, students, professors and the university itself pay more attention to all-round development. In the past, scientific research and learning may have been the most important, but these days, personal improvement has also become the most important aspect of student life: developing your hobbies and participating in various practices and social work. I think this change is great and obvious.

Q: What would you say about the disciplinary development of your field during the past years and the role Tsinghua faculty have played in the development?

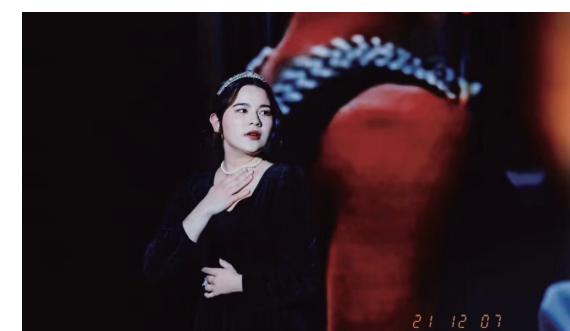
Yulia: In recent years, more innovation and research in the field of economics have been in the digital field.



Especially in China, the collection and application of big data have become more extensive and powerful. The question now involves how to use data to maximize utility. The digital economy, in general, is about studying the identification, selection and application of such big data. In recent years, I think many Tsinghua teachers are also studying this field.

Q: What are your expectations for Tsinghua and China in the next five years?

Yulia: As for Tsinghua, I think it will become more open and inclusive in the future. It will continue to strengthen its influence in various fields to attract more excellent talents from around the world to study at Tsinghua.



For China, I think China will continue to build a safer and stronger society. Now, China's economic development has been very strong, and it has basically got rid of absolute poverty. However, there are still some regions with very low per capita income and a large gap between the rich and the poor. In the next five years, I think China will reduce the gap between rich and poor and move towards a state of common prosperity. At the same time, I also think that China will continue to adhere to the concept of "building a human community with a shared future" at the global level and unite all countries for a better future.



Q: How did you see the significance of the CPC Congress?

Yulia: I had heard of the CPC Congress before. I think this meeting discusses some important issues for the country and the people. For example, it will set out the national development priorities for the next five years and beyond. Also, at the opening ceremony of the National Congress, the general public can learn about the work of the Party and the state in recent years and what achievements have been made in the development of the country.

Q: What is your key takeaway from the recently-held 20th National Congress of the CPC?

Yulia: The 20th National Congress is now over. I watched the opening and closing ceremonies. I have heard about the greening of the whole country and the building of a well-off society in an all-round way before, and I can also say that I have witnessed China's gradual improvement in these aspects. From the long-term bad weather before to the blue sky and white clouds now, we can clearly see the changes in the country.

At the 20th National Congress, a new concept was put forward: the Chinese path to modernization. In



fact, I spent some time understanding and exploring this concept. This concept covers many aspects. It is the modernization of a huge population, of common prosperity for all, of material and cultural-ethical advancement, of harmony between humanity and nature, and of peaceful development. I think this kind of "modernization" actually illustrates the development path that China will follow in the future. The development of these aspects will be the most important for China in the future.

Q: What role do you expect China to play in the future?

Yulia: I think in the future, China can become a leader in the world. For example, in science and technology, China is already much better and more advanced than other countries. Similarly, China will persist in finding an inclusive solution to all major domestic and world problems. China will solve them in a more peaceful and inclusive way.



My China Story: A country filled with wonders

Editor's Note

The past 10 years have been an amazing decade for China as it has experienced spectacular growth economically, socially and in many other ways. International students who have lived in the country any time from 2012 to 2022 must have some amazing stories to tell. We've invited some international students at Tsinghua to share their China Story. Today, let's read our Canadian student Lucy Zhu's story!



I still clearly remember the day I arrived in China in 2019; I was nervous and didn't know what to expect. Upon arrival it was heartwarming how welcoming everybody was on campus, I was supported in all the ways I could imagine, from residing into dorms to campus life, I couldn't be more thankful.

Growing up in Canada my parents were big on me staying close to my roots, I've always loved Chinese culture and wanted to explore this magnificent

country on my own. My first impression of China is that the Chinese economy is really booming. I have never experienced such an upswing before.

China has made amazing progress in building out a modern infrastructure, all while still retaining these strong traditional roots. Since opening its economy to market forces, China has grown into a global economic powerhouse whose influence on global markets is widely acknowledged. It is till I came to



China that I had the chance to witness this great technological advancement.

Now with Alipay and Taobao ingraining into people's lives, with one click I could reserve myself a dinner table anywhere in Beijing, takeout could arrive at your doorstep in less than 20 minutes, I can get things done easily with efficiency, I am living a lifestyle in China which I would never have imagined.

In my eyes, with ancient historical scenic sites in its almost all cities, China has drawn its own distinction to become more fabulous and attractive to foreigners.

The charm of its beautiful places, hospitable people, panoramic view of different tourist spots fascinates me every day. The unique architectural beauty composed of traditional dynastic structures shows the sedimentation of history but yet modern, glass and steel skyscrapers in different Chinese cities show the tremendous development of the past decades. The blend of traditional Chinese and modern western archeological designs of every structure shows that this is a country that continuously demonstrates inexplicable development yet are never oblivious of their origins.

Travelling in China, you can really immerse yourself in the colourful and natural beauty of the land of abundance with 5,000-year history and culture, China's awesome and monumental ancient treasures exceed all other countries for size and number – from ancient palaces to the Great Wall, city walls, buried armies, canals, pagodas, temples, and giant Buddhas.

I really took my time to visit as many beautiful natural phenomenon in China, I have visited cities like Hangzhou, Nanjing, Shanghai, Chongqing, all of the Chinese cities stands out with its own unique city culture and attraction, all developing in an impeccable speed.

One of the unforgettable memories I had was the time I woke up before dawn to witness the flag-raising ceremony at Tiananmen square.

The self-bridge paved with jade bricks and the palace decorated with red lacquer are even more plated with a layer of sacred gold in my eyes, which is very much the same as that of the time I visited in my childhood. Under the violet-blue sky village, everything is as quiet as sleep. The flag-raiser team took every step neatly, with their heads held high and their eyes very determined. Every time they took a step, their boots made a crisp sound. A corner of the sky gradually turned dark blue, light blue, and fish belly white, until a red light suddenly appeared in the clouds. The national anthem sounded in this solemn atmosphere, and the five-star red flag was hoisted high along with the passionate melody. It was a very emotional moment for me, it was the time I found a sense of belonging.

I choose to study journalism in Tsinghua University; the Chinese media industry and culture have developed immensely in the past 10 years. I've loved journalism ever since I was little, I feel like journalism has the ability to change perceptions. In this role, journalists could educate, inform, and shape public perception, leading society to a greater path.

China could fulfill my dream, especially with the mass resources Tsinghua has that could support me through my academic career. In my undergraduate years, I am more than honoured that I got a chance to shoot an anthropology documentary in Pingyao, China. Whether it is their construction concept, or the excavation and promotion of characteristic rural culture, as well as the responsibility and passion for the construction of beautiful countryside, everything is worth learning and discovering. Rural culture is an important part of China's five thousand years



of history and culture, which contains more nature, emotion, and simplicity. It is a deep-rooted complex in people's hearts, which embodies the nation's feelings and nourishes modern civilization's spiritual roots.

I have spent the most fulfilling four years in China and I am so grateful for all the things that this country has offered to me. With my undergraduate life almost coming to an end, I am reluctant to say goodbye. But I am certain that I will come back to this marvellous country again. Till we meet again, I wish to participate and embrace another 10 years of China's incredible development!



My China Story: A journey of doubts to a great discovery

Getting on that plane to Beijing back in 2017 was one of the hard decisions that I ever had made, partly filled with excitement and other half with tons of uncertain questions. After I reached Beijing for pursuing my graduate studies, I was deeply moved to have received a great hospitality from the school and dormitory staff, teachers and local Chinese students. I did had dubiety about the food in the early days, however with time, I realized and got taste of many kinds of delicious Chinese food. I assume that, because of the humble and friendly behavior of local (Chinese) people, it didn't take me long to quickly adapt to the Chinese way of life.

After having spent a semester, I got to know many people and make a lot of Chinese friends. A Chinese friend invited me to travel to his hometown to celebrate Chinese New Year with him and his family. I was so delighted to learn about it, without any hesitation I agreed to his offer. I boarded China's high-speed train for the first time in February 2018 from Beijing to Nanchang City, a capital city of Jiangxi Province, and after a day, take a bus to a small village called "Huanxiu" my friend's hometown. The local villagers were so excited, pleased and greeted me as being a foreigner visiting their village and celebrating the most important Chinese festival with them, it meant a lot to them. For a while, I felt that I am not a stranger anymore but a part of their family.



Firecrackers with the local villagers on New Year's Eve, making dumplings for the first time, playing different Chinese board games with my friend's family, enjoying variety of local foods, language and cultural exchange, getting special love and affection, were all those happy and remarkable memories that got very deep into my heart. I still carry those bottomless affection and memories with me, which showers me with home feelings.

I think China has always been my second home, a place where I have feelings of belonging. In addition, I was surprised by the high-quality life of the villagers. After chatting with locals, they showed satisfaction and spoke highly of the governments' diverse and innovative policies for the common people. The local government has done a great job by building new design houses for the villagers, streets and road infrastructure were re-built and most importantly, the agriculture and farmlands infrastructure were highly developed and improved. Additionally, I found out most of people in the village were eating very healthy, having access to every necessary resources.

On the other hand, the academic life environment was completely opposite to what I had imagined and had been told before coming to China. I am being taught in well-furnished classrooms, by excellent faculty with rich academic experience, well equipped laboratories with modern machineries and necessary tools, research opportunities and collaboration among students and teachers, diverse culture and environment with equal opportunities for all, well-furnished dormitories for foreign students, variety of indoor, outdoor sports activities.

My research supervisor directly gets me involved in the research projects, group discussion with the lab team. Due to the continuous and meticulous research suggestions and help from supervisor and beneficial lab's collaboration, I was able to receive some excellent research outputs that got published in some good international conferences and journals. These all were beyond my imagination and I had a sigh of relief and satisfaction, a feeling of proudness on my right choice for pursuing further education in a Chinese university.



Furthermore, China's fast development in recent years, a very mature and strong country's infrastructure, an instrumental role in the world's economy, achieving great success in poverty alleviation and tackling COVID 19 pandemic; are all no more a hidden secret.

In this aspect, on behalf of Tsinghua University, I volunteered in recently held 2022 Beijing Winter Olympics and Paralympics games. It was one of my great and unforgettable experience to have witnessed the great success of Beijing's Winter games, as well as China's efforts to provide high quality winter sports grounds/complex with full-fledged world's class modern facilities both for spectators and athletes. Despite facing the unprecedented COVID pandemic, China has made strict measures and control prevention to ensure the safety and good health of every individual including athletes, spectators and volunteers.

Every time, I got new opportunity or visiting new city or a new place, I always feel amazed and surprised by discovering a new China. My journey of doubts led me to have discovered a different, rigorous and beautiful China which I never knew before; a country filled with rich and diverse culture, a fertile land with thousands variety of foods, a land of warm-hearted, loving, caring, elegant and hardworking people, a place on earth filled with natural and beautiful landscapes, a land of dreams and opportunities, a hub of innovation and modern technologies and, a fast-developing economy and much more.



www.tsinghua.edu.cn

©2022 Global Communication Office, Tsinghua University. All Rights Reserved