EURAXESS China

Quarterly Newsletter Issue 1 2023

This newsletter is for you! Via china@euraxess.net, you can send us any **comments**, **contributions** or **suggestions**.

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Dear colleagues,

A warm welcome to our newest newsletter edition! We're kicking things off with a special feature on our meeting for European researchers who are diving deep into the fields of Social Sciences and Humanities in China. Curious about their work? This edition is packed with 12 “Meet the Researcher” articles that highlight their various research.

Learn for example about how drones are being used to unearth central Asia's past, how the ancient west is perceived in the far east, the wild west of reproductive offshoring, how Chinese students are fairing in the French education system, the digital life of expats, the connection of urban landscapes and art, how to react rapidly to technological changes that are happening in the classrooms, new models of rewarding creators, how 18th centruy global trade networks are being decoded, how humans adapt to working alongside robots, and the role of the mangrove in francophone literature and modern day ecocriticism.

As always, we're putting the spotlight on one of our member states. This edition’s focus is on IRELAND, where we'll give you a sneak peek into their vibrant research ecosystem, their exciting activities, and a look at their thriving business enterprise sector.

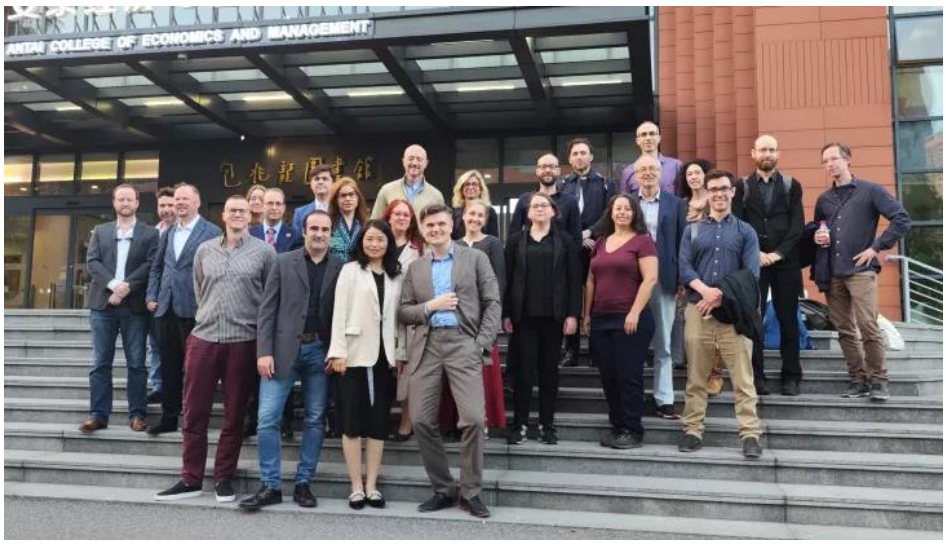
We also touch upon an intriguing question that's been making the rounds: Is AI overshadowing the role of immersive technology? We’ll explore how augmented and virtual reality technologies are reshaping our lives, society, and economy. To round this off, we're diving into the anticipated Digital Europe Programme, expected to invest in five key areas related to these technologies.

Don't forget to check out our 2023 Science Communication Training recap in the final section, just in case you missed it.

Best wishes,

EURAXESS China Team

European Social Scientists in China Come Together for a Day of Knowledge-Sharing at Shanghai Jiao Tong University



On April 20th, a group of European researchers in Social Sciences and Humanities based in Chinese universities and institutions convened at Shanghai Jiao Tong University for a day of networking, knowledge-sharing, and collaboration. The event, organized by the Delegation of the European Union in China, through the EU-China Partnership Facility, and EURAXESS China, provided a unique opportunity for participants to connect, exchange ideas, and form new partnerships.

The morning session kicked off with insightful speeches from Vojko Bratina, Policy Officer- S&T Attachè, Science and Technology Section, Delegation of the European Union to China who introduced EU-China research collaboration. The discussions then delved into funding best practices, local grant opportunities, and future networking activities, moderated by Halldor Berg and Dr. Manuel Perez Garcia, Associate Professor at Shanghai Jiao Tong University School of Humanities.

The afternoon session attracted a broader audience, where European researchers presented their work in China. The topics covered a wide range of research, including crossing cultural bridges and design, ecology, and ethnography. The talks provided valuable insights into the diverse range of research being conducted by European researchers in China. **To see some of the research they are working on read the "Meet the Researcher" articles that follow below.**

Overall, the event was a great success, offering a platform for European researchers to share best practices, promote their research, and network. The event was open to researchers based at institutions from all over China, ensuring a diverse range of researchers attended. With the positive response from attendees and enthusiasm for future collaborations, we can look forward to more exciting events in the future.

MEET THE RESEARCHER

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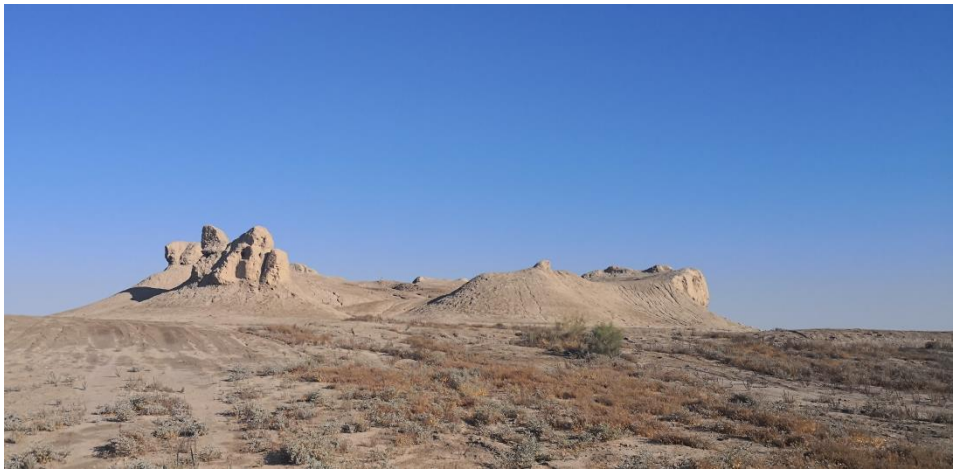
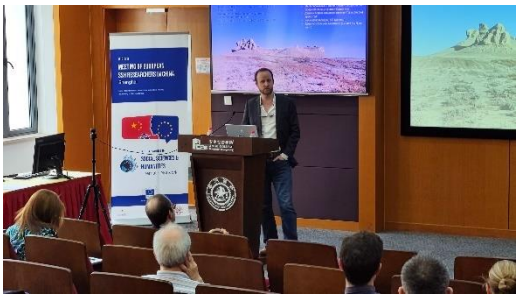


Using Drones to Unearth Central Asia's Past

Archaeology in Central Asia and Silk Road Urbanism



Professor Martin S. Goffriller, Associate Professor of Archeology at Xi'an Jiaotong-Liverpool University, revealed in his presentation the historical complexities of Central Asia's Silk Road by studying the Dzhetyasar archaeological landscape. Named after the Kazakh phrase for 'seven/many fortresses', Dzhetyasar offers insight into a civilization that existed from the 1st to 6th centuries AD.

Goffriller's work builds on the Khoresmian Archaeological-Ethnographic Expedition led by Sergei P. Tolstov, expanding its reach with drone technologies. His research has identified over 50 settlement sites across a 3000km2 region, classified into distinct typologies - from single-family mounds to compound settlements.

He posits that the Dzhetyasar civilization, initially a tribally-organized proto-state, gradually integrated into the sphere of external powers such as the T'ang, Khorazmians, or Turks. Changes in politics and economics, rather than the environment, likely caused its decline.

Future plans include establishing a clear chronology for the settlements using core sampling and Radiocarbon and OSL analysis. This will support a re-evaluation of past finds, aiming to develop an evolutionary model of the culture that considers changing hydrology and geopolitical contexts. This research will offer fresh perspectives on significant historical events, promising a deeper understanding of Silk Road urbanism.

"We don't know what language they spoke. We don't know what religion they had. We don't know what their ethnic origins were. None of these things we actually know. What we do know, however, is that they occupied a fairly large area in this region. They built large settlements, which is the main focus of my study."

MEET THE RESEARCHER

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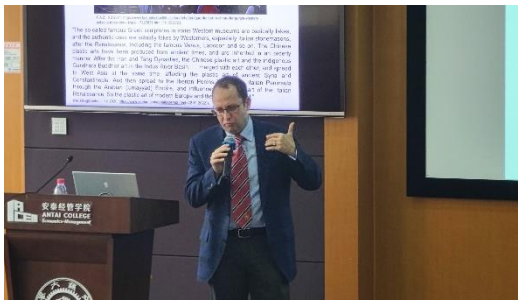
Ancient West in the Far East

Western Perspectives on China through Classical Lenses from Antiquity to Modernity



Sven Günther from the Institute for the History of Ancient Civilizations at Northeast Normal University presented on the topic of the historical influence of Greek and Roman civilizations on China and its relevance to modern times.

He discussed three steps of the reception of Greek and Roman influences in Chinese history:

1. Ancient connections: He suggested that in ancient times, there was a vague idea of a powerful empire in the far west, a perception that could potentially be related to the Roman Empire. However, he argued that these connections were likely more symbolic or indirect, rather than indicating a direct influence or exchange.
2. Middle Ages and Early Modern periods: During these times, Christian missionaries brought knowledge and techniques from the West into China. They translated books and influenced the elite, but this did not profoundly impact Chinese society at the time.
3. Late 19th and early 20th centuries: This era marked a significant period of reception of Western classical literature in China, with the introduction of Republican ideas and explicit discussions about Western concepts. Scholars began to study abroad, particularly in Greece and the United States, and then returned to China to disseminate this knowledge.

Günther pointed out that his organization, the Institute for the History of Ancient Civilizations was pivotal in promoting the study of Western civilization in China. The founder translated key texts into Chinese, which profoundly influenced China's perception of Western governance systems and historical classification.

Lastly, Günther discussed the contemporary relevance of these studies. He referred to the "Tacitus Trap" concept, initially used by scholars, which describes how Western ideas and tactics were adopted by Chinese political leaders. He stressed that understanding these classical interactions is crucial to fully comprehending modern Chinese politics and discourse.

He concluded his presentation by emphasizing the enduring influence and significance of Western antiquity in China, urging the audience to keep this in mind when examining current Chinese political and social discourse.

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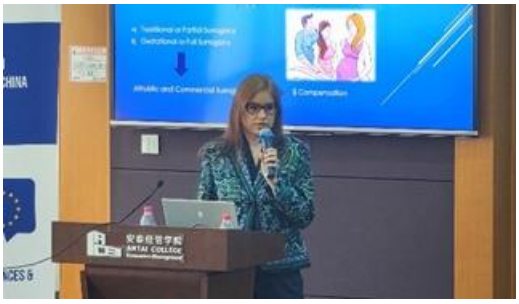
The Wild West of Reproductive Offshoring

Cross-border surrogacy arrangements: the need for a legal intervention



Doctor Evisa Usenko, from China University of Political Science and Law, has been diving deep into the world of cross-border surrogacy arrangements, examining the legal conundrums they pose.

Her focus is on surrogacy types - traditional and gestational, further divided into altruistic and commercial, the latter involving financial transactions. Yet, the international legal landscape surrounding these practices remains fuzzy, leading to ethical and legal dilemmas.

"How is this possible? You are just leaving someone, who wasn't even born yet, behind?"

Usenko's research draws from real-life scenarios, such as an Australian couple leaving behind their surrogate twin in Thailand with Down Syndrome, or a Japanese couple divorcing before their surrogate child was born in India. These cases raise significant legal questions including those concerning the child's nationality, legal parentage, and rights.

She suggests the need for an independent international convention to address surrogacy matters distinct from adoption. Key points in her proposal include safeguarding the interests of the child and surrogate mother, creating dedicated authorities for regulating international surrogacy, ensuring financial transparency, and promoting cooperation among states.

Through her research, Evisa Usenko hopes to provide much-needed clarity in the challenging landscape of cross-border surrogacy, ultimately striving to secure the rights and welfare of all involved.

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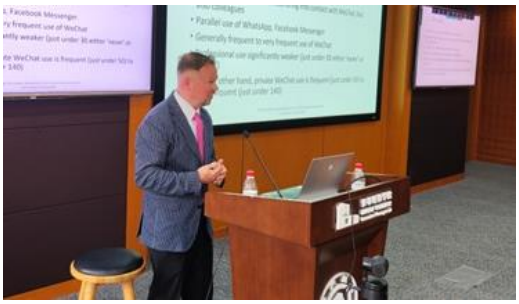
The Digital Life of Expats

WeChat as Used by German-speaking Expatriates



In an insightful presentation, Professor Michael Szurawitzki from the Beijing Institute of Technology unveiled his findings on the use of WeChat among German-speaking expatriates. Conducting his research between November 2018 and April 2019, Szurawitzki provided a comprehensive analysis of the role that WeChat plays in the lives of German speakers residing in China, exploring their communication habits and preferences within this popular Chinese messaging platform.

Upon arrival in China, WeChat quickly became a pivotal tool for communication among the German-speaking respondents. However, Szurawitzki's research uncovered that the use of this platform didn't lead to the abandonment of other messaging services. Participants still found use for platforms like WhatsApp and Facebook Messenger, using them concurrently with WeChat. Interestingly, among the plethora of features that WeChat offers, voice messaging and the platform's payment function, WeChat Pay, were identified as most favored by the respondents.

"I want to make a case for some new technology moving away from a traditional notion of chat. What do we have here? We have text, we have emojis, we have pictures, we have a payment, and we have a video call and that's all included in the text. And I do find that chats as a concept doesn't suffice. "

The study also dove into the linguistic practices within WeChat conversations. An observable high degree of language and code switching occurred in chats, with English primarily being used. German also surfaced as a relevant language, with some instances of Chinese usage, particularly among the roughly 10% of respondents who were native speakers or near-native speakers of Chinese.

While exploring the linguistic behaviors, Szurawitzki highlighted the participants' inclination towards a more formal, written communication style within their chats, contrary to the stereotypical use of Internet slang and abbreviations. The term "polychat" was proposed by Szurawitzki to define the multifaceted nature of WeChat interactions, where communication transcends mere text to involve elements such as emojis, pictures, payments, and video calls. His publication, "WeChat as a Digital Speech Island," expands on these findings, illuminating the complex digital linguistic landscape within the German-speaking expatriate community in China.

Szurawitzki, Michael (2020): *Die chinesische Messaging-Applikation WeChat als virtuelle Sprach-insel. Studien zur Nutzung von WeChat durch deutschsprachige Expatriates in China*. Tübingen: Narr Francke Attempto.

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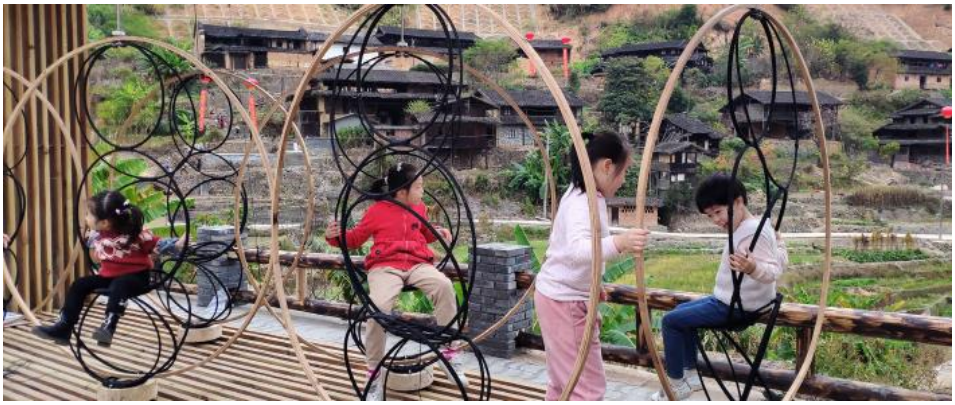

Urban Landscapes and Art

Thinking the city from a cross-cultural perspective

Senior Associate Professor Claudia Westermann at Xi'an Jiaotong-Liverpool University is delving into an intriguing blend of architecture, art, design, and cross-cultural urbanism. Her research, interdisciplinary in nature, draws from her background in architecture and media arts, exploring the intertwining of art, design, and technology within the urban fabric of the city.

”We have been looking at questions of design and philosophy, of cognition... It's quite interesting to see. We compare public space in Western contexts which have become more and more privatised, and we have here spaces where we don't really know what they are, but they seem to be available for use.”

Westermann's project, developed with colleagues for a festival of art and design in the remote countryside of Fujian province, illustrates her research's tangible impact. The initiative aimed to determine whether art and design could revitalise the countryside, tackling the issue of rural depopulation and the preservation of cultural and built heritage. This research also has an ecological aspect, focusing on how spaces and technology interact within various cultural contexts.

She sits on the executive committee of the American Society for Cybernetics, aligning her research with cybernetic ideas of art, design, and ecology. Westermann also supervises doctoral research on the influence of environments on creative processes and the possible integration of consumer-level biosensor technology into design processes. This commitment to transdisciplinarity extends to her editorial work, contributing to academic journals exploring art, technology and philosophy.

Most recently, Westermann has been investigating how the pandemic has shaped urban landscapes and public spaces, particularly in China. This shift in focus led to collaborative work across the globe, investigating the city as a point of connection in an increasingly isolated world. Her upcoming work explores changes in spatial dynamics during the pandemic, such as the reactivation of empty spaces and the evolving use of public spaces in Chinese cities.

MEET THE RESEARCHER

How to React to Rapidly Changing Classrooms

Edtech and AI in HE: Pink Panther or Dark Vader?

Roser Cervera, a Senior Lecturer of Modern Languages and Culture at United International College (UIC), recently shared insights from her ongoing research on the intersection of edtech, artificial intelligence (AI), and higher education. Drawing on over two decades of teaching experience, Cervera combines her passions for languages, culture, edtech, and professional development to improve pedagogical practices, especially in the context of her English-taught courses at UIC in Zhuhai, China.

In her recent presentation titled "Edtech and AI in Higher Education: Pink Panther or Dark Vader?", she introduced her research, focusing primarily on two studies. The first investigates the use of edtech to motivate students and enhance their learning experience. In this study, Cervera explores the potential of technology as a tool to inject playfulness into learning, thereby improving student engagement and outcomes.

"We do not need to be scared about AI in our class. We need to try to think about the ways that it can help us in our classes and also in our research, because we can have very interesting results."

Her second research project probes into the professional development opportunities available to educators, particularly in the wake of the pandemic. Cervera found that many educators faced challenges transitioning to online teaching during the pandemic, often without sufficient resources or training from their institutions. Interestingly, this study revealed general dissatisfaction among educators about the professional development opportunities provided to them, indicating a need for enhanced support in this area.

Looking ahead, Cervera is setting her sights on exploring how AI can augment the learning experience, especially in foreign language and culture courses in Chinese higher education institutions. Her objective is to discover how AI can assist educators, amplify student learning, and expand lessons beyond the confines of the classroom. Whether AI in edtech is a benign Pink Panther or a formidable Dark Vader in the realm of higher education, Cervera's research promises to illuminate our understanding and optimize its usage.

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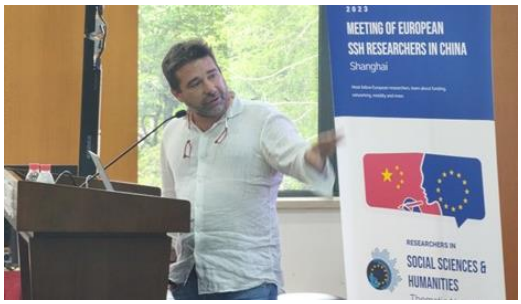
New Models of Rewarding Creators

Online Video Distribution in China



Dr. Filippo Gilardi, Associate Professor and Head of School of International Communication at the University of Nottingham Ningbo China, has been deeply immersed in examining the dynamics of online video distribution in China. Dr. Gilardi initiated his investigation in 2017, focusing particularly on the distribution and potential impact of short films and microfilms.

Dr. Gilardi's research revolves around the intersection of technology and film industry, with his prime concern being the stagnation in talent development despite technological advancements. The crux of his work delves into questions such as how microfilms can foster dialogue, how the thorny issues of copyright can be effectively addressed, and more importantly, how income can be directly attributed to the creators in the era of predominant online payment methods.

Dr. Gilardi identified that platforms in China operate quite similarly to their American counterparts. However, he proposed a unique model wherein a potential system could be designed to facilitate the direct rewarding of creators through apps. Despite achieving some success in creating a prototype of this system, Dr. Gilardi and his team encountered challenges primarily because the new model didn't initially generate income for decision-makers.

Nevertheless, Dr. Gilardi's research paves the way for many exciting questions in the future. It offers a framework for understanding the development of copyright laws in China, the adaptations made by various platforms, and how international content is distributed. Furthermore, it explores the motivations of user-generated content creators in engaging with online activities and their role in promoting official content, ultimately opening up new areas for further investigation.

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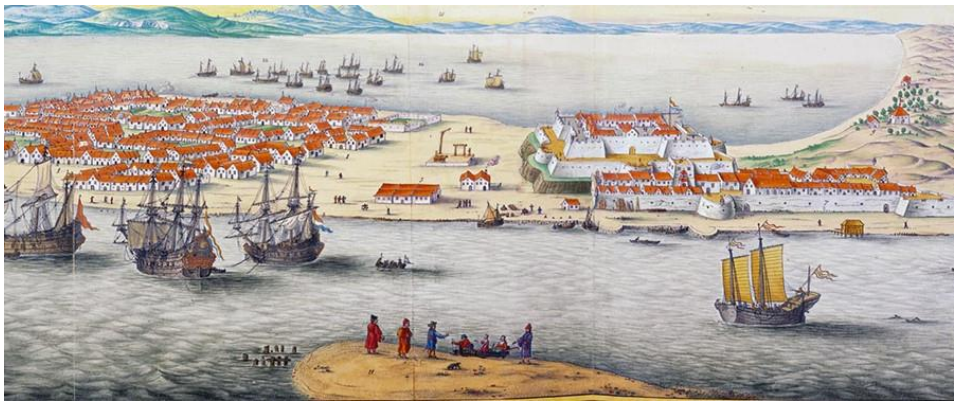
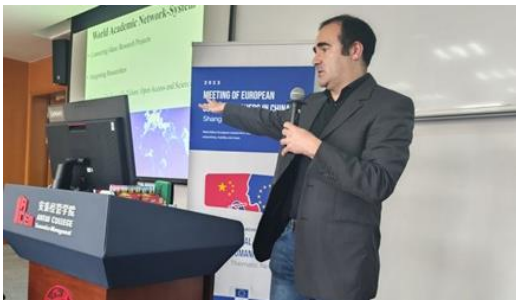


Decoding 18th Century Global Trade Networks

GECEM Project European Research Council and Global Economic History in China



Dr. Manuel Perez Garcia, Tenured Associate Professor of Global History at Shanghai Jiao Tong University, presented his research in a talk titled "GECEM Project (European Research Council) and Global Economic History in China". He underscored his team's unique approach towards understanding global economic history, challenging the established framework and proposing innovative interpretations.

Funded by the European Research Council, the project spanned from 2016 to 2022, was equipped with a budget of €1.5 million, and aimed to redefine our understanding of early globalization and economic history between China and Europe. The team examined the concept of globalization and its ideological applications, challenging established notions such as GDP per capita as an indicator for economic growth from the early modern period until present day. In particular, they aimed to re-evaluate the concept of "Great Divergence", which posits that Western European economies outpaced Asian economies following the discovery of the Americas.

Dr. Perez Garcia argued for an innovative "power paradox theory". This theory challenges the established understanding of state capacity and autocratic rule, and suggests that concentrated power can have negative effects on governance. The team applied this theory to understand domestic issues within China, and proposed a new interpretation of the Opium Wars as a civil conflict, driven by power struggles between ruling elites. At the heart of their research lies an application of digital humanities. They've created the GECEM Project Database (www.gecemdatabase.eu), incorporating a wide range of digitized sources in multiple languages, that allows for nuanced examination of historical trade networks and social dynamics. One notable case study involved comparing the impact of Chinese silk in local economies, and how global consumption patterns may have influenced the trajectory of the "Great Divergence".

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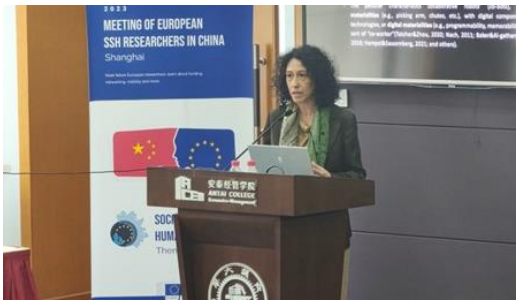
How do We Feel About Working Alongside Robots?

An IPA approach towards the impact of employees' work identity on co-bots adoption



The research of Rosanna Terminio, a PhD Candidate at the Universitat Oberta de Catalunya and visiting student at Xi'an Jiaotong-Liverpool University, delves into the realm of human-robot collaboration in the workplace and its influence on employees' work identity.

As technological advancements continue to shape the future of work, the integration of collaborative robots (co-bots) has emerged as a significant trend. Co-bots allow workers and machines to share workspace and tasks, transforming the dynamics of the workforce. Terminio's research revolves around the question of how employees' work-related identity affects the adoption of these co-bots.

Initially focusing on blue-collar workers due to their perceived risk of job displacement, Teminio expanded her investigation to encompass employees at different levels, recognizing varying responses to technology adoption. Moreover, she explored the differences between employees in developed and developing countries, to understand whether cultural factors influence attitudes towards technology.

The research is built upon a theoretical framework that combines identity theory and work identity with the process of self-verification, which examines how individuals construct meaning and cope with changing situations by searching for congruence. In particular, Terminio is interested in emotional and cognitive components of work identity, as these aspects play a crucial role in work performance.

Recognizing the complexity of digitalization-driven change and the emotionally connected responses of individuals, she opted for a qualitative research methodology. Using semi-structured interviews and storytelling, she captures the unique experiences of participants, allowing for a deep understanding of how co-bot integration impacts their work identity.

The research encompasses a comparative study between a European firm and its subsidiary in China, highlighting cross-national differences in the context of digital transformation and human interaction. By identifying motivating factors for employees to acquire new skills and remain relevant in the labor market, her work has the potential to shape successful technology adoption strategies.

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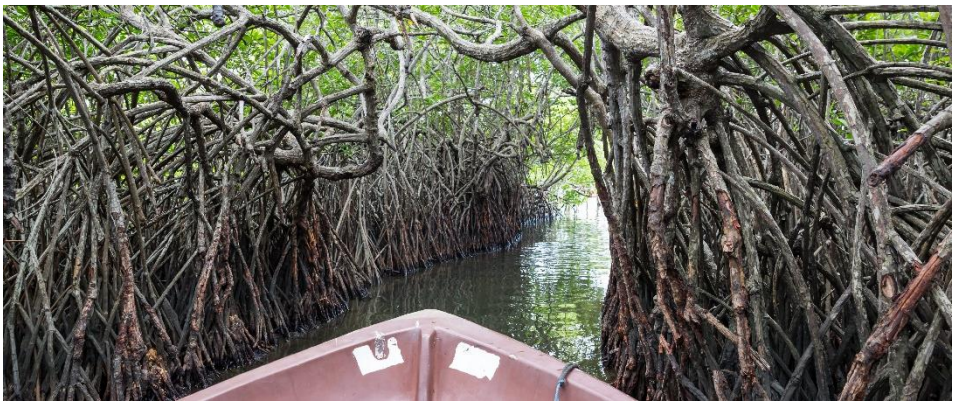

Roots Across Continents: Reading The Mangrove

Francophone Literature and Ecocriticism

In a presentation titled "Francophone Literature and Ecocriticism: Reading the Mangrove," Maxime Philippe, an Associate Professor of Literature at Shanghai University, delved into his research that seeks to unlock the mysteries of nature's hidden gems and their connections to human culture and literature.

The foundation of Dr Philippe's research lies in the mystical realm of the mangrove. This unique and little-explored habitat has piqued his curiosity ever since his encounter with it in Taiwan in 2019. Its captivating complexities, distinct from other coastal landscapes, left a mark on him, sparking a desire to unravel its significance in the global context.

Drawing upon his experiences in Guangdong province, China, Dr Philippe started to discover the universality of the mangrove's appeal across cultures. Studying this intriguing ecosystem could serve as a bridge, connecting people worldwide through their shared relationship with nature. Moreover, as global warming threatens the delicate balance of coastal regions, the mangrove's survival becomes a matter of utmost importance.

The significance of mangroves, however, extends beyond their environmental implications. Professor Philippe deftly explores how these enigmatic entities also intertwine with Francophone literature and Creole identity, serving as metaphors that symbolize intricate societal dynamics. With references to renowned authors like Édouard Glissant and Maryse Condé, he accentuates the cultural significance and artistic depth that mangroves inspire in the literary world.

At the crux of his research lies the intertwining of cultural heritage and environmental consciousness. The mangrove, with its complex root systems symbolizing Creole identity, opens a door to a deeper understanding of human connection with nature. It serves as a poignant reminder of the delicate balance between humanity and the environment we call home.

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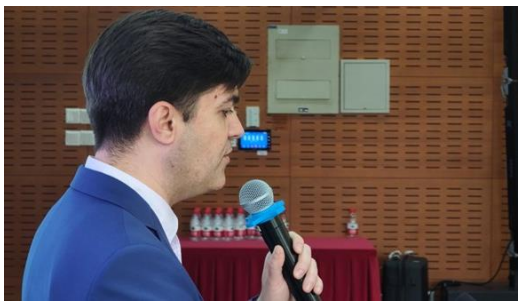
Crossing Cultural Bridges

Chinese Students' Experiences in a Transnational University



In a recent study conducted by Dr. Marius Wamsiedel, an Assistant Professor of Sociology and Global Health at Duke Kunshan University, the focus is on Chinese students' experiences in a transnational university in China. Relying on in-depth interviews, the research provides a detailed look at the journey these students take from pre-university education to their time in the transnational institution.

A significant part of the study centers on the "gaokao", China's national university entrance exam, and its influence on pre-university education. While many participants believe the gaokao to be an appropriate system for a country with such a broad and socioeconomically diverse population, the exam is not without controversy. A number of participants view the gaokao as a tool for upward social mobility, but worries persist about an unequal playing field, with students from more developed provinces and wealthier backgrounds holding an unfair advantage. Additionally, several participants regard the competitiveness of the gaokao as a disruptive element in their high school experience. They recount enduring prolonged stress due to the pressure from families, school, and peers to excel, and also adopting an instrumental approach to education, prioritizing grades over the actual acquisition of knowledge and skills.

The study also examines students' transition to a transnational university. These universities tend to be chosen by students for potential benefits such as dual diplomas, improved English skills, and exposure to foreign curricula. However, the transition can be challenging due to unfamiliarity with different assessment methods, teaching styles, and nuances in teacher-student relationships.

In conclusion, Wamsiedel's research offers insights into the journey of Chinese students through transnational education. Students continue to place importance on grades but also begin to align their learning with personal interests. The study highlights the strong influence of the "gaokao" system on students' approach to education, contrasting with the frequently cited Confucian heritage influences. This work emphasizes the need to understand the unique experiences and challenges of students navigating cross-cultural educational environments.

EURAXESS members in focus: IRELAND

Introduction to the national research landscape

Higher education in Ireland is provided mainly by universities and technological universities, institutes of technology, and colleges of education. Other tertiary institutions provide specialist education in fields such as art and design, medicine, business studies, rural development, theology, music, law, etc.

Internationalisation provides significant new opportunities for Irish higher education. The government has invested heavily in research and innovation (R&I) to support this. Today, Ireland ranks 8th out of 29 countries (EU, Japan and the US) in terms of research publications per 1,000 inhabitants. It is regarded as a leader in the advancement and implementation of the Bologna Declaration and its higher education structures and national guiding principles resonate well with the values of institutional autonomy, academic freedom, and social equity. By international standards, Ireland has a relatively large number of tertiary institutions, offering a rich learning, teaching and research environment. Some 25 of Irish higher education institutions, including eight universities currently receive public funding.

Ireland was ranked highest of all countries in the international recruiter reviews of graduate employability and second highest of 28 countries in the international peer review of graduate quality.

In respect to female researchers in the higher education sector, Ireland has been steadily moving up the ranks over the past ten years, ranking 8th out of 31 OECD countries in 2018. In the field of medical and health sciences, female researchers account for 62%.

The main sources of R&D funding come from three distinct areas: direct government, indirect government and other sources such as Irish industry, foreign industry, and EU funding programmes. Direct government funding comes via various government departments and agencies that fund research projects performed in the higher education sector. According to 2018 figures, direct government funding amounted to €364m. The largest proportion (€213m) of R&D expenditure was in the field of engineering and technology, up 39% from 2016. Expenditure on R&D in the humanities amounted to €47m. The total spend on

According to Ireland's Strategy for Science, Technology and Innovation (SSTI), four sectors – electrical and optical equipment (which includes ICT and medical devices), chemicals and pharmaceuticals, food and drink, and print and recorded media – account for the largest share of Irish manufacturing output.

Main government departments/agencies with spending on R&D include:

- Higher Education Authority
- Science Foundation Ireland
- Enterprise Ireland
- Teagasc
- IDA Ireland
- Health Research Board
- Irish Research Council
- Dept. of Agriculture, Food and the Marine
- Environmental Protection Agency
- Marine Institute
- Sustainable Energy Authority of Ireland
- Department of Further and Higher Education, Research, Innovation and Science

Funding from Science Foundation Ireland (SFI) to the higher education sector amounted to €169.2m in 2018, accounting for 46% of total direct government funding**.**

Department of Education funding is available to all universities and institutes of technology to support the development of their research capabilities and talented individual researchers, and to encourage cooperation within institutions and between institutions. This funding is primarily aimed at boosting research the higher education system and developing and improving postgraduate-level education. Funding is provided for PhD students and early-stage postdoctoral researchers under the Irish Research Council. Funding for these programmes is made available through the Higher Education Authority (HEA). The education related elements of the regional operational programmes – funded through the Department of Enterprise, Trade and Employment – also supports R&D activities in the higher education sector.

The establishment of the Department of Further and Higher Education, Research, Innovation and Science was completed in January 2021 following a transfer of functions. A number of agencies involved in research were consequently transferred over to this Department in 2021. The Department funds and creates policy for the higher and further education and research sectors. It also oversees the work of the state agencies and public institutions operating in these areas. With respect to research activity, its approach will be grounded in the next national strategy for research and innovation, which will run until end 2027 and will be broken down into two work programmes: to end 2024 and then end 2027.

University level studies in Ireland:

Students enrolled in tertiary studies in Ireland typically obtain a Bachelor's Degree or a professional equivalent (Professional Degree). The length of study for this stage varies between three and four years. The Bachelor's Degree may be

awarded as a General Degree, an Honours Degree or a BA (Special) Degree. Courses in veterinary medicine/science, architecture and dentistry last for five years, while medicine takes six years. More advanced studies at university level typically lead to a Postgraduate Diploma and/or Master's Degree. These studies last for a minimum of one year after the award of the Bachelor's Degree, and candidates are usually expected to present a thesis based on research. After the Master's, a further two years of study are normally required to obtain a PhD Degree – a Higher Doctorate is awarded on the defence of a thesis introducing more detailed original research several years longer.

Around 12% (~20,000) of the total student body (~156,000) attending Irish universities are international students representing more than 120 countries, which reflects the attractiveness of the Irish university experience to students from across the globe.

The importance of higher education is evident in the high value-added sectors of the Irish economy, such as information and communication, professional, scientific and technical activities. Universities also play a significant role in Irish social and cultural life. They are deeply embedded in the communities in which they are located with socio-cultural activities spanning tourism, sport, music and entertainment, arts and culture. There are eight universities in Ireland:

- Dublin City University
- University of Galway
- Technological University Dublin
- University College Dublin
- Maynooth University
- Trinity College Dublin
- University College Cork
- University of Limerick

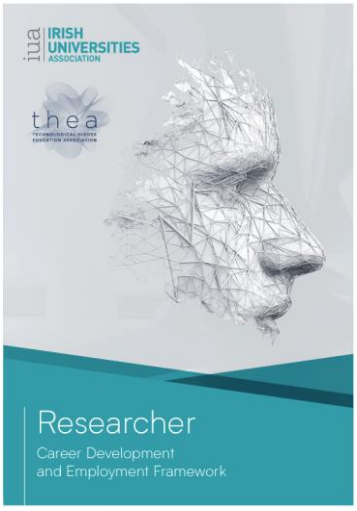
Research priorities:

The Department of Further and Higher Education, Research, Innovation and Science focuses on a selection of priority areas for future R&D investment to achieve the government's economic objectives, including:

1. Future networks and communications
2. Food for health
3. Data analytics, management, security and privacy
4. Sustainable food production and processing
5. Digital platforms, content and applications
6. Marine renewable energy
7. Connected health and independent living
8. Smart grids and smart cities
9. Medical devices
10. Manufacturing competitiveness
11. Diagnostics
12. Processing technologies and novel materials
13. Therapeutics, synthesis formulation, processing and drug delivery
14. Innovation in services and business processes

There are several centres of excellence spread throughout Ireland focusing on, for example, ICT, nanotechnology, medical devices, and more. One centre of excellence, **Adapt**, is a Science Foundation Ireland (SFI) research centre for AI-driven digital content technology based in Trinity College Dublin. Another is **Lero**, Europe's first e-sport science research lab, co-funded by industry and SFI, which investigates how software and technology can "impact, a person's physical and mental condition, and performance".

Special features of R&D strategy:



Innovation aspects (funding, companies, startups, Global Innovation Index, GII)

Ireland ranks 19th among the 132 economies featured in the GII 2022. Ireland performs above the high-income group average in five pillars, namely: institutions; human capital and research; infrastructure; business sophistication; and knowledge and technology outputs.

The Irish Government budget allocation for R&D in 2020 was €866.8m and €949.1m in 2021 which marks an increase of over 8% in expenditure compared to 2019.

Innovation 2020, the national science and innovation strategy, includes an Action (No. 3.10), to "develop a coherent national policy on structured progression for researchers". The Irish Researcher Career Development and Employment Framework put together by the Irish Universities Association aims to deliver on this national policy action.

Business enterprise sector:

With its budget of nearly €1.13b (2021), Enterprise Ireland provides a range of programmes that help enterprises to innovate. These range from programmes for short-term and relatively small innovation projects, right through to building deeper engagement through large-scale, multiannual collaborative projects. Included are programmes to drive in-company R&D in Irish-owned companies and programmes to support the translation of academic research into new products, processes and services by industry. Enterprise Ireland's innovation programmes are centred on:

- Transforming R&D activity in enterprise
- Direct support to help Irish companies build R&D capability and acquire new technology through licensing, and equity support for new High Potential Start-ups (HPSUs)
- Promoting industry collaboration with the higher education sector
- Programmes to increase the level of collaborative R&D activity between industry and academia
- Realising the commercial potential of the Irish research community

The Disruptive Technologies Innovation Fund is a €500m challenge-based fund established under Project Ireland 2040. It is one of four funds set up under the National Development Plan (NDP) 2018-2027. It is managed by the Department of Enterprise, Trade and Employment and administered by Enterprise Ireland. The Fund is seeing investment in the development and commercial deployment of disruptive, innovative technologies tackling national and global challenges. The

fund is driving collaboration between Ireland's research base and industry, as well as helping enterprises to compete directly for funding to further develop and deploy these technologies, and seeding a new wave of start-ups.

IBEC is Ireland's largest lobby and business representative group seeking to build a better, sustainable future by influencing, supporting and delivering for business success.

Industrial Development Agency (IDA) has national responsibility for securing new investment from overseas in manufacturing and international services, and for encouraging existing foreign enterprises to expand their businesses. Through its 23 overseas offices, the IDA Research, Development & Innovation programme is designed to support companies at all research and development stages, enabling them to move from start-up R&D, through developing capacity and adding competence, to a fully integrated RD&I function.

InterTrade Ireland is the only organisation which supports SMEs across Ireland to develop North/South trade and business development opportunities for the mutual benefit of both economies.

Academy – industry relations and networks:

Science Foundation Ireland funds a diverse and balanced portfolio of programmes, supporting both individually led researchers (from early stage to mid-stage career researchers, to emerging research stars and established research leaders), and research teams working collaboratively in large-scale SFI Research Centres. Many of SFI's funding programmes involve national and international collaborations with both small and large companies, charities, international funders as well as national funders such as Teagasc, Marine Institute, Environmental Protection Agency, Health Research Board, etc.

Innovation Partnership Programme (Enterprise Ireland) supports collaborative research projects between Irish higher education institutes and companies. The financial support is provided to the college with co-funding from the partner company. The proposal process and administration of the project is managed by the participating institute. Researchers participating in an Innovation Partnership will benefit from the opportunity to work with companies working to solve real technical challenges and develop new products or services. The initiative also allows researchers to apply for a small grant to undertake a feasibility study that could lead to a full Innovation Partnership project.

Wild Geese Network of Irish Scientists (WGNIS) enables connection, communication and collaboration among Irish scientific, technological and engineering diaspora.

EURAXESS Ireland

EURAXESS Ireland has one main office under the Irish Universities Association umbrella. Staff in Ireland provide practical assistance to researchers relocating to and from Ireland to pursue research careers in academia and industry among other sectors. Services include advice on immigration, fast-track researcher work permits, research jobs and funding opportunities, networking events for researchers, and outreach activities to research institutions and human

resources. EURAXESS Ireland is a government-funded, central processing hub for hosting agreements (visas for scientific research, employed in Ireland). Over 7,000 researchers have benefited from the scheme to date. Researchers working under hosting agreements in Ireland don't need any additional work permits and, under certain conditions, may stay in the country to work freely in any sector after their research contract has expired. The scheme covers immediate family members (spouses and children) accompanying the researcher in Ireland.

Contact details

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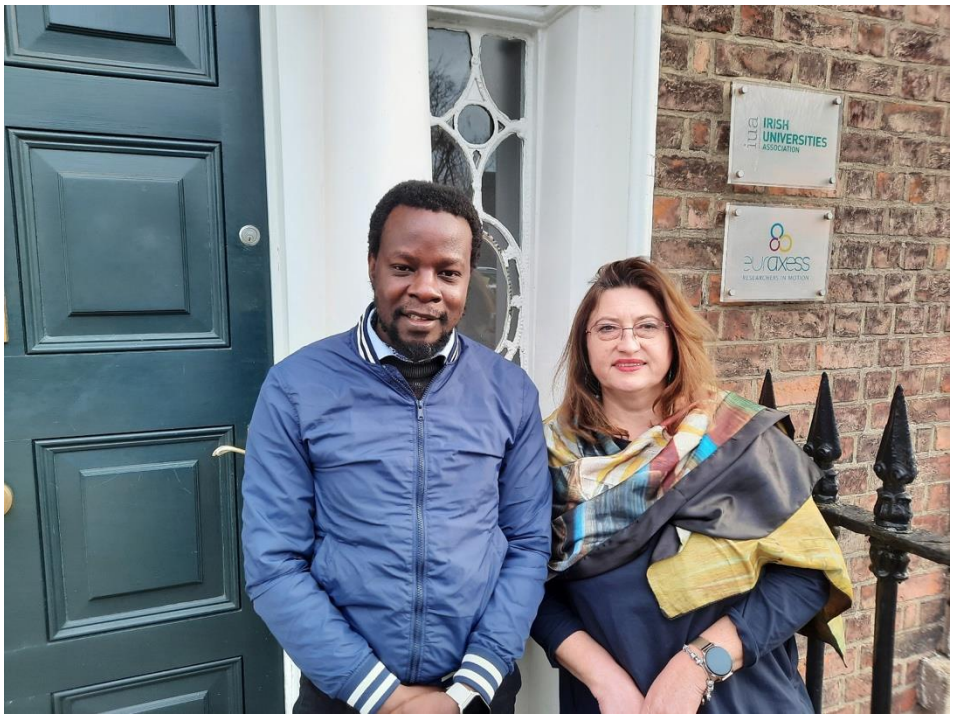
EURAXESS – Researchers in Motion is an initiative of the European Research Area (ERA) to stimulate researcher mobility and career development. This pan-European effort is currently supported by 43 countries, one of which we profile in each of our quarterly e-newsletters.



L-R EURAXESS Ireland Team Fernandos Ongolly and Magdalena Wislocka (Picture credit: Marguerita Lardner, IUA)

Is AI hogging immersive technology's limelight?

ChatGPT's likely answer: 'yes'. Realistic answer: 'yes … for now'.

ChatGPT and its artificial intelligence-inspired kin are filling headlines and firing imaginations. For the world of **augmented and virtual reality (AVR)** it means having to share the limelight… for a while.

But when excitement over chatty robots settles, experts are predicting that it will be immersive technologies that people are likely to 'experience' in the near term, and 'remember' in the long term.

Gartner actually sees them as a "mutually beneficial" collection or subset of technologies that enterprises will increasingly adopt in the coming years. Vendors will need to figure out how to get more artificial intelligence functionality out of the cloud and into the edge, the tech research company continues, where AVR can be better leveraged.

Already today, thanks to greater computing power and expertise in the AVR sector, immersive technologies have established themselves as much more than a novelty.

"Technology like virtual reality/augmented reality is stepping inside an alternate reality, deeper than the real world, where users have complete control over their environment in a highly engaging and immersive way," as *FutureSide* neatly explains in a feature on the "benefits of augmenting the world".

Indeed, research has sped forward in recent years and applications now range from frivolous fun to highly practical to truly life-saving. The technical maturity and growing reach of AVR have not escaped the notice of markets and the investors that drive them.

In marketing and advertising, it is a powerful means of personalising experiences and raising online engagement using 'gamification' techniques, thus boosting sales. While more broadly, businesses can use visualisation tools in routine tasks, such as optimising production and finding cost-savings.

As the cost of VR headsets comes down with scale, and new ways of integrating AVR into other devices, haptics and applications emerge, experts imagine a further expansion of the immersive universe – or what the EURAXESS WORLDWIDE community is welcome to call the *Immersiverse*!

A creative endeavour

The growing use of AVR in different sectors offers some insight into its impact on society and the economy today. Take the creative and cultural industry (CCI) as a prime example.

Immersive technology has fundamentally changed the way people consume content. Using digital storytelling combined with audio-, visual- and extended reality, companies offer memorable, emotional 'experiences' not just 'products' and 'services'. This strengthens customer engagement and loyalty, so the theory goes.

Tour operators, museums, and exhibitors can augment physical objects and places with additional animations, graphics, and other contextual features to transform and even individualise the visit or journey.

In Europe, the games industry was an early adopter, but with improvements in the technology, proliferation of broadband, and advances in mobile (5G), AVR is opening up to other leisure sectors, and the transport industry, according to developments communicated by the 5G Automotive Association (5GAA).

The Covid-19 pandemic further accelerated the use of digital technologies, and AVR, in particular, as the culture and museum sector got creative with enhanced "virtual" tours and performances. Architects and designers dived into computer aided design (CAD) in combination with VR to show clients how, for example, a rebuild or new product might look.

More and more startups are entering (or adopting) the immersive technology domain, which is a further indicator of the growing interest in Europe. One example of a young Estonian company using AVR for cultural and creative purposes is *Ready Player Me*, a metaverse 3Davatar creator platform.

Another is Denmark's *Books & Magic*, which develops augmented reality storybooks combining physical books and an app for children to immerse themselves in the story. In the film and broadcasting world, *zLense* has developed technologies for real-time 3D scene scanning, and a "virtual production platform".

A 'virtual' European mindset

The European Union has been at the forefront of many of these innovations, as part of its Digital Europe's Programme – and seen through the lens of its twin digital and green transition ambitions under the European Green Deal.

With an overall budget of €7.5 billion, Digital Europe provides strategic funding in five key areas: supercomputing, artificial intelligence, cybersecurity, advanced

digital skills, and ensuring wider use of digital technologies across the economy and society.

AVR developments fall under several of these headings as well as activities under EU Research Framework Programmes – previously Horizon 2020 and currently **Horizon Europe**.

A Virtual and Augmented Reality Industrial Coalition (VARIC) was created, as part of the European Commission's 2020 Media and Audiovisual Action Plan (see the current MAAP) to make sure commercial developments align with key challenges and opportunities in the European AVR sector.

In 2021, the Commission also announced a call under Horizon Europe to create a VR Media Lab to "stimulate interdisciplinary cooperation and build prototypes of advanced solutions for the creation, distribution and consumption of new immersive and innovative products for media".

On the investment side, with a war chest worth €400 million (2022-2027), the EU-backed MediaInvest is looking to stimulate commercial innovations throughout the audiovisual sector. Funding is drawn from the Creative Europe MEDIA programme and the European Investment Fund's InvestEU equity package, among others.

More recently, the Commission hosted a European citizens' panel to formulate recommendations on a vision, principles, and actions to ensure that virtual worlds in the EU are "fair and fit for people".

The EURAXESS WORLDWIDE is going to keep on top of all of these investments and initiatives, and encourages members in its regional and country hubs to watch out for future calls and opportunities in AVR and immersive technology coming out of Europe.

In case you missed it…

Science Communication Training

In case you missed our 2023 Science Communication Training, you can take a look at this year's four online sessions now. We will come back to the topic of science communication during the last quarter with EURAXESS Science Slam China 2023. Stay tuned!

Session #1: How to write a great script?

We started by focusing on how to produce a high quality and engaging script to pitch your research project and focus on to use ChatGPT to improve your Science Communication and invited participants to try out a new tool that supports researchers with their science communication: the Science Slam Brainstormer.

Session #2: Unleash your creativity: Make a script completely yours

With **Alvaro Castells** and **Litong Jiang**, winners of past editions of the Science Slam, we provided guidance and concrete tips on how to make your script personal, how to engage a non-expert audience, how to make your presentation fun and entertaining. We also saw a live demonstration of how to make an engaging presentation.

Carisma is key: Master the art of captivating presentations

With world-leading science communicator Dr Sam Illingworth we explored what makes for effective and engaging presentations, touching on oral presentations, how to make appealing posters, and how to communicate your work in a digital space. We provided with several key tools to help you develop confident and memorable presentations in a variety of formats.

Session 4: Light, camera, science! Shoot a compelling 2-minute video using only your phone

Unleash your inner Spielberg and captivate your audience with visual storytelling. In this webinar we thaught our participants how to shoot a compelling short video without any equipment, including how to plan and script, shooting techniques, audio recording and editing.

About us

EURAXESS China is a networking tool for European researchers active in China and for Chinese and international researchers wishing to collaborate and/or pursue a career in Europe. EURAXESS China provides information about research in Europe, European research policy, opportunities for research funding, for EU-China and international collaboration and for trans-national mobility. **Membership is free**.

Visit us at china.euraxess.org and join the EURAXESS China community.

EURAXESS Worldwide has dedicated teams in the following countries and regions ready to assist you: ASEAN (focus on Singapore, Thailand, Indonesia, Malaysia, and Vietnam), Latin America and the Caribbean (LAC, focus on Brazil, Argentina, Chile, Mexico, and Colombia), China, India, Japan, North America (USA and Canada), South Korea, Australia and New Zealand.