



香港大學
THE UNIVERSITY OF HONG KONG

BULLETIN

November 2018 Volume 20 No. 1

LEADING THE WORLD IN FINTECH

HKU Research Is at the Forefront of
this Fast-Evolving Field



**Bigger and
Stronger**
The Medical
Faculty's
development
plans



**Live a
Green Life**
Learn to
take a break
without
electronic
devices



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LEADING THE WORLD IN FINTECH

The way we buy, sell and invest is undergoing enormous change thanks to financial technology. HKU scholars have been quick off the mark to investigate and explain this phenomenon - from identifying the legal and regulatory implications to developing applications for industry; from looking at how migrant workers use FinTech to the darker side of the big data collection that underpins the technology.

THE FINTECH REVOLUTION

Technology is transforming finance. HKU is at the forefront in explaining financial technology, identifying its impacts and using that knowledge to help others understand this deepening trend.



“FinTech is rapidly changing the finance industry and this is of critical importance to Hong Kong given the size of the financial sector here.”

Professor Douglas Arner

What is FinTech? The first thing to understand is that despite the 21st-century label, financial technology (as FinTech is properly known) is not new. It has been in use for more than 2,000 years, starting with coins then paper and credit cards and, more recently, cryptocurrencies such as Bitcoin. This understanding is the starting point of a 2015 study by HKU scholars that became the most downloaded paper on FinTech on the Social Science Research Network (SSRN) and has been frequently cited by scholars and policymakers around the world.

“Our contribution has been to show not so much what FinTech is but who is using it. One hundred years ago it was used by governments. Seventy years ago, banks like Citibank and JP Morgan started to create innovations like credit cards and ATM machines. In the last 10 years, innovation in technology is being done more by start-ups than financial institutions,” said Janos Barberis, a PhD candidate in law who co-authored the paper, titled ‘The Evolution of FinTech: A New Post-Crisis Paradigm?’, with Professor Douglas Arner, Kerry Holdings Professor in Law, in the Faculty of Law and

Professor Ross Buckley of the University of New South Wales, published in the *Georgetown Journal of International Law*.

Moreover, the rapidity of recent developments is new and it is having repercussions that reveal themselves practically in real time. New players are entering the finance industry, not only start-ups but also technology companies, such as Alibaba, Tencent and Amazon. Many new users are gaining access to financial services for the first time, including 1.2 billion users just since 2011. New technology is also changing the nature of finance, in particular blockchain which, among other things, has spawned cryptocurrencies.

Regulators are trying to catch up with all these trends, which is where the HKU scholars come in. Following their initial paper, they have produced or are in the midst of completing research on RegTech (regulatory technology), TechFin (technology companies in the finance industry) and other trends in the field; launched a start-up; produced policy papers for the Alliance for Financial Inclusion (AFI) made up of central

banks and bank regulators from more than 100 developing countries; and launched Asia’s first FinTech MOOC (massive open online course), as well as undergraduate and Master’s programmes in FinTech.

“FinTech is rapidly changing the finance industry and this is of critical importance to Hong Kong given the size of the financial sector here,” Professor Arner said. “We believe there is tremendous scope to re-conceptualise global finance and its regulation in line with technological change and we have been working with industry, policymakers and regulators to move this forward.”

The starting point

When the scholars started working on their groundbreaking paper only three years ago, there were few others in their field looking at FinTech. Mr Barberis had just started his PhD under Professor Arner’s supervision, having worked on building a new online bank in the United Kingdom. As they discussed this emerging market activity, they saw an



Professor Douglas Arner spoke at the Pan Asian Regulatory Summit in October, 2018. (Courtesy of Refinitiv)



“ With financial institutions, the whole regulatory system is built around making sure they hold capital so they don’t go bust because of a mismatch of liability and financing. But technology companies don’t have loan books and they don’t try to hold cash. They’re all about flows, not holding capital. ”

Mr Janos Barberis

“ Most FinTech start-ups want regulation because it gives a level of trust to the community, which is good for their business. It helps them compete with the traditional financial institutions. ”

Professor Douglas Arner



Janos Barberis (left) and Professor Douglas W. Arner (right) at a seminar on regulating FinTech innovation.

opportunity. “We realised there was a lot of confusion. There was this new term FinTech and people were beginning to see a lot of new things happening. So we set out to explain all the major trends that were coming together to transform the way that finance was operating all over the world,” Professor Arner said.

“Pre-2008, research and development in financial services was largely about sales – it was rarely about coming up with better ways of doing things. We’ve now had this explosion of start-ups involving both technology and financial services companies trying to come up with these better ways,” Professor Arner said.

Their first point was that the relationship between finance and technology was picking up. This was first seen in major developed markets, where US\$5 trillion a day changes hands through global payment systems and people trade stocks in nano-seconds through high-frequency trading. But they also identified three other, less well-known trends.

One was the move to online finance in developing countries. Kenya became a centre for this development after it launched mobile phone-based payment services about 10 years ago and others followed suit in Africa and Asia, including China and most recently India. China in particular has undergone the most rapid financial technological transformation in history, as seen by the financial services ecosystems launched by Alibaba and Tencent that serve hundreds of millions of people.

Another trend was the involvement of start-ups, which are increasingly becoming a source of new ideas and new ways of doing things.

The final trend they identified was the move of technology companies into financial services, which the scholars dubbed ‘TechFin’. This includes such companies as Alibaba, Tencent, Amazon and Facebook.

In addition to these trends, their ongoing research has been identifying the risks involved in financial technology and how these can be addressed from a policy standpoint.

RegTech and TechFin

The use of new technology to regulate the finance industry is of interest for both firms and policymakers. Firms use it to comply with regulation while regulators aim to use it to improve regulatory outcomes. RegTech itself is not very new, as Professor Arner pointed out: in the United States, the major source of insider trading prosecutions since the 1980s has come from historical stock exchange data that must be handed over to the authorities in cases of mergers and acquisitions. The trading activity



Professor Douglas Arner (first from left) at the 2018 Annual Meetings of the International Monetary Fund and World Bank Group in Bali. (Courtesy of Alliance for Financial Inclusion)



HKU FinTech Day was held on October 29, 2018 as part of the 2018 FinTech Education Series of the Hong Kong FinTech Week.



is matched to a list of insiders to see if there was any unusual activity leading up to the merger or acquisition.

Hong Kong is in the process of building similar systems, with the Securities and Futures Commission tendering to build an online platform to receive company reports, which could be analysed using data analytics to monitor activities and flag problems. The Hong Kong Monetary Authority also recently issued its strategy for RegTech in the context of new virtual banking licence issuance.

Regulation becomes rather more complicated when technology companies start providing financial services – that is, in the case of TechFin. Technology companies have huge scale, distribution and customer access, which creates more systemic risk, said Mr Barberis, who is focussing on TechFin for his PhD, which will be completed by early 2019.

“With financial institutions, the whole regulatory system is built around making sure they hold capital so they don’t go bust because of a mismatch of liability and financing. But technology companies don’t have loan books and they don’t try to hold cash. They’re all about flows, not holding capital. Arguably, there is something new on the back of that observation,” he said.

FinTech as a door to financial inclusion

As these insights have emerged, attention has turned towards providing solutions. “There are increasing examples of industry and regulators working together to design better systems based on technology,” said Professor Arner, who has been the proponent of one such system, with Professor Buckley and Professor Dirk Zetsche of the University of Luxembourg, that was recently adopted as policy by the

Alliance for Financial Inclusion (AFI) and highlighted at the 2018 Annual Meetings of the International Monetary Fund and World Bank Group in Bali.

Drawing on their research, the scholars put forward a four-pillar strategy for improving financial inclusion and transforming digital financial systems. It includes building digital identification systems, digital payment infrastructure and open electronic payments systems; promoting the opening of accounts and access, starting with electronic payments for government services; designing digital financial markets and systems; and using regulation to support these pillars.

“Most of the 1.2 billion people who have gained access to financial services since 2011 have come from a small number of countries – Kenya, China, India, Russia. There are still 1.7 billion people who don’t have access. Banks and

regulators are looking at what lessons can be drawn not just to support financial inclusion, but as a strategy for transforming their digital financial systems,” Professor Arner said. “Importantly, 70 per cent of that 1.7 billion have mobile or smart phones and this sets the stage for rapid transformation in the coming years.”

With AFI, Professors Arner, Buckley and Zetzsche are now working with a group of ASEAN [Association of Southeast Asian Nations] countries on how to implement this strategy, as well as with another group of Pacific Islands countries working on a regional approach.

Blockchain, Bitcoin and trust

One system that has Professor Arner’s attention is blockchain technology. Most people associate it with Bitcoin, but it has much wider scope than that. “We’ve spent a lot of time looking at the legal and regulatory issues around blockchain,” he said. “Blockchain is basically a record-keeping system and its core strengths are in security, transparency and permanence. If you want speed, it’s not very effective. So for securities trading, which takes place throughout the day at very high speed, blockchain doesn’t work well for that. But at the end of each trading day when you have to record who owns what, it’s very useful.”

Cryptocurrencies such as Bitcoin are basically a unit of account for pricing or valuing the things recorded on a blockchain’s ledgers. “Lots of people are interested in cryptocurrencies. Bitcoin was the first real application. Over the past year we’ve seen a massive spike in value followed by a massive collapse that has now entered the history books as one of the world’s greatest speculative bubbles. It doesn’t mean the price won’t go up again or that the underlying asset is valueless. But from my standpoint, the underlying technology of blockchain is more of interest than the cryptocurrency application,” he said. The team is currently working with the Asian Development Bank on policy issues around blockchain.

One thing Professor Arner is unwavering about is that the need for regulation of FinTech and all its permutations – not just for the consumer, but the industry. “Most FinTech start-ups want regulation because it gives a level of trust to the community, which is good for their business. It helps them compete with the traditional financial institutions. To the extent that they have a license and are regulated, it definitely increases trust,” he said. ■



SuperCharger start-up

SuperCharger is a start-up formed in 2015 by PhD candidate Janos Barberis, with Professor Douglas Arner on the advisory board. The company rapidly developed into Asia’s top FinTech accelerator, working with regional growth-stage companies as well as international mature scale-ups wishing to enter Asia. To date, it has received over 1,000 applications and helped 46 companies through its 12-week programme that facilitates market entry via workshops, access

to investors and mentors, and publicity, which now runs in Malaysia as well as Hong Kong.

The company also feeds indirectly into research, Professor Arner said. “Interacting with start-ups and the industry through SuperCharger is very important for us to understand what people are doing, what sorts of business ideas and technologies they are looking at and what issues they are running into,” he said.



MOOCs and more

The University is embracing the academic opportunities offered by its leading research in FinTech. FinTech has been named a strategic interdisciplinary research area and is the focus of new research centres being established in the Faculties of Law, Business and Economics and Engineering. Research-related MoUs [Memorandums of understanding] have also been signed with the Hong Kong Science and Technology Park and Cyberport. And a new Law, Innovation, Technology and Entrepreneurship (LITE) programme is being set up to facilitate the transfer of research into impact.

Asia’s first FinTech MOOC (massive open online course), led by Professor Arner, Mr Barberis and other scholars and industry

experts, was launched on edX in the spring (www.edx.org/course/introduction-to-fintech). It has attracted over 30,000 enrolments from every country in the world and with Standard Chartered Bank made it an element of its FinTech training programmes. The course will soon be joined by two other HKU FinTech MOOCs from the Business and Engineering Faculties to jointly form HKU’s first online professional certificate.

FinTech is also featuring in study programmes. The first students in a new Bachelor of Arts and Sciences in FinTech will start in September, 2019 and postgraduate FinTech programmes have or will soon be launched in the Faculties of Law, Business and Engineering.



THE ‘TECH’ BEHIND FINTECH

A new R&D laboratory in the Faculty of Engineering is bringing together expertise on blockchain, algorithms, security and more to explore new frontiers in financial technology.

Dr S M Yiu is the Director of HKU’s new FinTech Lab, which has been launched with a US\$400,000 private donation and will bring together computer science and other scholars to translate the University’s findings into industrial applications.

Dr Yiu has been working extensively in computer security and cryptography and will lead the lab in exploring some of the most promising areas

in the artificial intelligence (AI) and data analysis that underpin financial technology.

One of these is blockchain, which decentralises data distribution without the need of a trusted authority. Dr Yiu has been working on a platform that enables data to be traded directly between parties rather than the costlier route of going through such an authority. The data has to be encrypted to protect privacy and copyright, which can make it difficult to extract the data easily, but he has been developing a workaround.

“We are building a better platform that encrypts the data but has a library on top of it that lets people do calculations or extract certain statistics from the encrypted data. It lets you get results without needing all the underlying data.” The idea is somewhat akin to publishing the findings of research but not the raw data, and letting others use the findings for their own purposes. As Dr Yiu pointed out, businesses often do not need every scrap of data about people to calculate such things as their preferred style of smartphone.

New start-up

Another area he and his team are looking at is ‘algo-trading’ – using algorithms to guide financial trades. He and a former PhD student

have developed an AI engine that uses historical data to predict the best dozen or so stocks to buy and sell within a given period. Unlike human financial advisors who might review portfolios with clients every few months, this AI agent can give a timely report and signal if the portfolio mix should be changed. Dr Yiu and his student have formed a new start-up, Brain Investing Limited, which has received RMB 4 million from a private investor.

A third area that has Dr Yiu’s attention is security, in particular fraud. He has started a project to analyse how people use Bitcoin to determine if they are using it for money laundering. Preliminary results show there are unusual transactions, which will be probed further. In future, the FinTech Lab may also look at big data analysis and natural language processing.

“Our main focus is to bring HKU research to the FinTech industry,” he added – something that will also include launching a new massive open online course on blockchain technology in 2019. ■



“Our main focus is to bring HKU research to the FinTech industry.”

Dr S M Yiu

MIGRANT WORKERS EMBRACE THE DIGITAL WALLET

Digital money, in the form of Alipay, WeChat Wallet, QQ Wallet and the like, is both changing and reinforcing the social function of money in China and the role of institutions in workers' lives.



“There are important questions here about the bigger workings of China's economy – about who is afforded credit and who isn't and what is meant by inclusion.”

Dr Tom McDonald

Money plays a clear key role in establishing and sustaining social relationships in Chinese culture, being handed out every Lunar New Year, at weddings, births, funerals and any other occasions where a red packet is associated with auspicious fortune. But what happens to this function when money substantially changes form?

That question is at the heart of research by Dr Tom McDonald of the Department of Sociology, who has been studying how migrant workers in Mainland China are jumping onto digital money platforms.

He and his team initially studied mostly young male workers at a Foxconn factory and more recently shifted to a smaller factory in Shenzhen that has workers of different ages and even families living in the dormitories.

“We're trying to understand how migrant workers are using this money, how it affects the relations and interactions in the factory, how it's reshaping their everyday lives,” he said, along with whether the promise of greater financial inclusion from digital money platforms is being realised.

The evidence collected over the past four years is that workers are embracing these

platforms with both arms, even older workers and those with limited literacy skills.

Convenience and visibility

The workers told Dr McDonald and his team that they were attracted by the convenience of digital money because they could pay bills and other transactions through their phones. They also liked the visibility of their money because they could check their balances and transactions online and had the option of seeing interest accrue every day, even if it was just a few *mao* [cents], on Alipay's Yu'e Bao platform.

“Many workers are thinking of ways out of factory work and would like to learn more skills or start a business, but it's very risky using your own money. We've had workers say, at least if I keep my money in Yu'e Bao, I can see it grow every day,” he said.

Workers also perceived the platforms to have different qualities that reflected social relationships. WeChat Wallet was regarded as a place for exchanges between friends and for small-scale purchases, QQ Wallet as less trustworthy because it tends to have larger numbers of contacts who are outside the user's usual circles, and Alipay as the most trustworthy, especially for large purchases,

ironically because it lacks connections to existing online social networks and therefore is seen as more 'professional'.

Alipay nonetheless has introduced some social functions, such as digital red packets (also offered by WeChat Wallet) that are used, among other things, to send money home if the worker cannot return for the Lunar New Year and to play a social game among friends who take turns posting red packets with tiny amounts of money to their chat group, which members compete to claim for their own.

Alipay has also introduced Sesame Credit, a credit rating system that lets people see how much they are eligible to borrow through its Ant Spend Now function. The latter operates like a credit card by letting people make purchases and pay later, with the first month interest-free. “Migrant workers in factories traditionally have not been afforded credit cards so this is an example of people getting their first taste of formal credit,” Dr McDonald said.

Relationship factors

Yet workers are not necessarily ready to give up the informal credit channels that are based on social relationships, such as family, friends and rotating credit associations between groups of people.

Some said Ant Spend Now made it possible for them to lend cash to friends in need because they could put their own purchases on credit.

Dr McDonald said that apart from social relationships, the different uses of digital platforms reflect the workers' relationship with the state and institutions. Workers borrow from Alipay – a private company – because the state-owned banks and rural credit cooperatives tend not to lend them money. “There are important questions here about the bigger workings of China's economy – about who is afforded credit and who isn't and what is meant by inclusion,” he said.

The platforms also reflect how people are perceiving their own lives. Young people worry about financial autonomy and do not want to rely on their parents for money or borrow from people in their home town, who might gossip about them. This links to a deeper trend in the country.

“There's quite a lot of research about growing individualism in Chinese society. Digital money itself might not cause that but it may be a way to reflect those ideas,” he said. ■



Reviewing participants' digital wallet transactions helps illuminate money's social purposes.

THE DATA REVOLUTION GETS PERSONAL

Scholars, businesses and governments are benefitting from the huge amount of data available in the finance field. This is both exciting and unnerving, says Assistant Professor of Finance Dr Wang Zigan.



“My very pessimistic prediction is that we will be data cows, starting from FinTech then to genome or medical technology, then to whatever follows that.”

Dr Wang Zigan

Finance research traditionally used to focus on the big players, such as industries and firms. But over the past decade, the level of data available has become so individualised that it has enabled researchers to probe into the personal behaviour and decisions of managers, households and others. To understand just how personal this data is, consider the research of Dr Wang Zigan, who has been studying the migration patterns of inventors and ‘star’ scientists.

Dr Wang has been able to access their home addresses, whether they have children at home and their ages, and other highly personal data that he has combined with more general information to predict when a scientist might move to another location.

“I want to estimate the impact of every factor that affects their decision. The scientists themselves may not fully understand what drives their move – they might just think they don’t like the place. But the machine can scan and analyse all the data and show, for example, if the decision is 35 per cent due to the surrounding environment, 25 per cent to the salary and 15 per cent to tax policies. And it can very accurately predict whether another inventor will decide to move,” he said.

Many other researchers are similarly using personal data, such as a professor at Cornell

University who studied the relationship between corporate managers’ personal home mortgage debt and their firm’s debt.

Data like this is accessible to approved scholars through application to governments and in some cases purchase from private firms. The two examples cited here used Western sources, but there is an even richer trove of data in China. “Big data analysis is developing much faster in China than the United States because there are much fewer legal constraints,” Dr Wang said.

Knowing their customers

While the boost to scholarship is interesting, the real impact of the data boom is being seen in business, with consequences for consumers. For instance, “Chinese firms are accumulating more and more data and using it to study their customers’ every behaviour so they can extract more profits from them,” he said.

Alibaba’s Ant Spend Now uses algorithms to approve automatic loans to customers. The machines can process huge amounts of data very quickly – something that has only become possible in recent years because more personal data is now available – and as a result have much lower default rates than loans approved by people.

“The automatic loans are probably China’s greatest FinTech achievement,” Dr Wang said. “But is it a good thing? Providing liquidity or credit to people who really need it is good, but loans are also provided to people who do not need them, like college students. They’re given very high interest rates and forced to repay.

“And if they can’t repay? They will just have to because in China, you cannot avoid using smartphones. The apps used for calling a cab, ordering online and many other things are wholly owned by the giant technology firms that provide the loans, and they can prevent you from using those apps. So for people who do not have good self-control, automatic loans are a bad thing. They could drag a lot of people down – that is the dark side of it.”

FinTech is only the start

American technology giants are hampered by their legal system which makes it more difficult to obtain and use people’s data. Even so, there is the example of Cambridge Analytics, which was given access to data about Facebook users. Facebook has promised to tighten privacy protection, as has Google. “But how do you really know they have done what they said? Who can check the codes? Not even programmers may understand the codes fully,” he said.

The use of data will only accelerate and governments are also getting in on the act. China has minimised controls on technology firms in exchange for help in acquiring data. Dr Wang believes this will give the country an advantage in the next stage of the AI-driven revolution.

“FinTech is the first field making great progress in the big data age, the next one will be medical technology. The more data you have from people, the more accurate you will be able to know which gene or combination of genes controls which disease,” he said. This is generally a positive thing except, he added, that genes can also determine people’s emotions. If

the government understands this, it could open the way to manipulating people’s moods and behaviour.

Given the value of data to businesses and governments, and the rapid developments in their ability to obtain and use data, Dr Wang sees reason to worry about the future. “My very pessimistic prediction is that we will be data cows, starting from FinTech then to genome or medical technology, then to whatever follows that. This is our future,” he said. He therefore recently threw away his smartphone, although he is struggling with how to make payments when he next visits Mainland China, where smartphone payments are often the only option. ■



Being able to access highly personal data for analysis, Dr Wang looks into the relationship between toxic emissions and executive migration. The above figure maps the location of the 58,094 Toxic Release Inventory (TRI) plants that operated between 1996 and 2014. Each dot represents a TRI plant location.



CHINA'S AI APPROACH TO INFORMATION CONTROL

Censorship is an old-school idea compared to the sophisticated data-driven approach China is taking to control the spread of information in the country.

Denouncing negative information as 'fake news' has become a depressingly common tactic of politicians around the world. In China, this has been turned into a whole industry. Debunking news and news sources is one of a spectrum of activities that the state is using to control information and its flow, according to Dr Fu King-wa of the Journalism and Media Studies Centre.

Dr Fu has been leading research on social media censorship in Mainland China for nearly a decade, but in the past couple of years he has had to expand that remit because censorship has become only the crudest form of control.

"Censorship is what I call Control 1.0, which is used to control political content and regulate the news media and social media. But now we have Control 2.0, which is about manipulating public opinion to make people think in a different direction," he said.

This involves deploying the '50-cent army' (*wu mao dang*), who are paid a small amount of money to cast doubts on social media postings that are unfavourable to the government. In addition, if people click on links embedded in unfavourable postings, they may automatically receive a message that the item is 'misinformation'

and be given a link to 'learn more' about what is wrong with it.

Censorship can backfire

A prime example of this was after the 2015 Tianjin blast, in which a storage facility blew up,

killing 173 people and injuring hundreds more. On Weiboscope, a platform Dr Fu created to track social media activity, he detected questions being posted asking why dangerous explosive material was stored near a residential area in contravention of the law and speculating that corruption was involved. There was also



A censored Weibo post about a CNN reporter being attacked during a live broadcast.



“Censorship is what I call Control 1.0, which is used to control political content and regulate the news media and social media. But now we have Control 2.0, which is about manipulating public opinion.”

Dr Fu King-wa

speculation that a CNN reporter trying to cover the story had been arrested. A combination of censorship and debunking was subsequently deployed to dampen the rumours.

"For more politically sensitive issues, like attacking the responsible government officers or uploading photos of people protesting against the government on the street, there was more likely to be censorship. But less sensitive issues, like the discussion about the CNN reporter, were more likely to be debunked.

"In fact, we find that in some cases censorship wasn't very effective. If people were hungry for information, no matter if it was censored, they would still look for it. There was one story questioning the number of casualties in the blast that was censored. This was information that people wanted to know so even though it was censored, they went looking for it."

Still, as information control tactics have evolved, people's social media usage has moved away

from the more public domains of Sina Weibo to the semi-public space of WeChat's public accounts. In response, Dr Fu launched WeChatscope in 2018 to track the activities of more than 3,000 accounts that post on social affairs, including their posts, user engagement and removal of posts.

This makes it possible to tackle another form of information control – self-censorship – and Dr Fu has detected more cases where people delete posts or refrain from re-posting them. He has also noticed that different media outlets remove their content at the same time, suggesting they may have been directed to do so.

Preparing for Control 3.0

Information control tactics are also evolving into the international arena. China recently tried to get Cambridge University Press to block access to politically-sensitive articles and pressured airlines to drop Hong Kong and Taiwan as independent destinations and place them under China.

Dr Fu believes the government is using the information control tactics to prepare its citizens for 'Control 3.0' – the social credit scoring system that will roll out in 2020. The operational details are still unclear, but it is quite possible that a person's social media activities could count towards their score, which may determine such things as whether they can purchase airplane tickets or send their children for private education.

"How can a system like social credit work? There has to be a context in which the citizens get used to these multiple ways of having information controlled by the government. Control 1.0 and 2.0 have created an atmosphere over the past 10 years of collecting multiple kinds of information from people who have no way to say no. They are giving up a lot of privacy in exchange for services," he said.

China is not the only place trying to use technology to monitor its citizens. A new book in the United States, *Automating Inequality: How High-Tech Tools Profile, Police, and Punish the Poor* by Virginia Eubanks, shows how some American states and cities have developed automated systems to assess and track citizens on social benefits.

"That book is about punishing poor people. But in China it's not just to punish the economically-disadvantaged but also political dissidents," he said, adding: "AI [artificial intelligence] does a lot of good things for society. But there are a lot of issues to sort out about how this works."

The WeChatscope website can be found at wechatscope.jmsc.hku.hk



WeChatscope (beta version) is developed to collect data from a selected panel of WeChat public accounts for a better understanding into the role of the platform in content censorship, information distribution, user engagement, platform intervention, and connectivity enabled by the technology.



The Students and Scholars Against Corporate Misbehaviour (SACOM) launched the 'ISlave at 10' campaign in 2017 to coincide with the 10th anniversary of the iPhone.

TAKING ON FOXCONN

Professor Pun Ngai has produced critical research on the problematic working conditions in Foxconn factories and the state of China's working class.

The highly-publicised spate of suicides at Foxconn factories in Shenzhen in 2010 were a catalysing force for Professor Pun Ngai in the Department of Sociology, who had already earned accolades for her study of female migrant workers in China. Fourteen suicides were reported that year and Foxconn claimed they were due to personal reasons. But as the numbers escalated, the explanation failed to convince Professor Pun, who appealed to nine fellow scholars for immediate help to investigate working conditions at the factory – there was no time to wait for funding. That appeal started a snowball reaction that is still rolling.

More than 100 volunteer academics and students came forward, including 14 students

who landed jobs inside Foxconn. The research revealed stressful working conditions, such as shifts that operated around the clock and a setup that discouraged workers from forming bonds lest they start to organise themselves (for instance, workers from the same village or community were purposely separated).

More importantly, the work enabled Professor Pun to identify a new group of working class in China that she estimated numbered as many as 20 million people: vocational school students.

These schools were encouraging students to work in all kinds of factories, not only during summer or winter breaks but as part of their final-year work placements, even though the

work was often unrelated to their majors such as nursing, accounting, management and the like.

“We observed big buses picking up students at those schools and taking them to the Foxconn factory,” she said. “The students had hoped to learn a skill and climb the social ladder, but in reality they were being sent to work in a factory, doing very repetitive tasks. It made them feel they were wasting three years at the school.”

Campaigns for change

Her research showed schools had signed agreements with Foxconn to provide student workers, although this was much reduced after the spate of suicides. However, Foxconn



“ The students had hoped to learn a skill and climb the social ladder, but in reality they were being sent to work in a factory. ”

Professor Pun Ngai

subsequently expanded into the western part of China and found fresh recruits there – she even found instructions from one local government asking a vocational school to place their students at Foxconn.

“Usually the provincial leader is very happy to work with Foxconn because it will increase GDP, at least on paper,” she said. “The local and state governments and the company and school are working together to produce what I call a young migrant working class.”

Professor Pun's findings were shared in the media and with NGOs and became the basis of campaigns to improve working conditions. One group she worked closely with, Students and Scholars Against Corporate Misbehaviour

(SACOM), launched a high-profile campaign in 2017 to coincide with the 10th anniversary of the iPhone (Foxconn's major client is Apple). This resulted in the firms' pledging to improve students' wages, stop students from working night shifts and allow for union elections. Apple even said it would stop employing student interns. But more recently, Professor Pun has received reports that the old practices are creeping back in.

While stopping students from working at Foxconn could affect their income, Professor Pun said it was important that students be offered appropriate internships in their disciplines, which are either lacking or require students to pay extra. “The students really need to learn and upgrade their skills so if this puts

pressure on the vocational schools to find other vendors for these students, it is not necessarily a bad thing. But it will take time to improve the situation,” she said.

A gap between dreams and reality

Professor Pun's research also takes a broader perspective on the situation at Foxconn, placing it within the greater context of the evolution of the modern working class in China. The first generation emerged in the 1980s and 1990s when China was opening up, and worked 14 to 16 hours a day, seven days a week. The second generation had it a little better with work scaled back to six days a week.

The third generation – the current one – has come of age when the central government is trying to upgrade the skills of its workers. “Their working life is getting better – their working hours are shorter and their salaries are higher than previous generations. But there is a gap between their dreams and reality and they have accumulated more grievances and desires simply because of the consumption culture. They compare themselves with urban workers and the middle-class lifestyle. I would say in the long run that is driving them to organise to improve their working conditions,” she said.

For example, the Foxconn workers she observed were aware of their labour rights and willing to join forces. “There will be more strikes, more proactive action, so the government has to try to find a balance between the two sides,” she said.

In addition to her research, Professor Pun is also raising awareness among workers in China by working with three vocational schools to develop a general education curriculum and website about labour protection and migrant issues. ■



Since 2010, the Students and Scholars Against Corporate Misbehaviour (SACOM) has run a series of campaign demanding that Apple and Foxconn stop their practice of forcing vocational school students to work excessively long hours in the iPhone production lines.

SEX WITH CHINESE CHARACTERISTICS

Sexual culture and practices help sustain the political economy in China, even when the state is cracking down on them, argues Professor Petula Ho Sik-ying.



“Most people think sex is a marginal topic, but it is an entry point to understanding the whole post-socialist China.”

Professor Petula Ho Sik-ying

The role of the Communist Party in the private lives of Chinese citizens has become markedly more hands-off since the Mao era, when work units monitored and exerted control over people's intimate relations. People are freer now to make their own choices, but in recent years, the party has been making its presence felt again, according to Professor Petula Ho Sik-ying of the Department of Social Work and Social Administration, who has been studying sex in Chinese societies for more than two decades and recently completed a major review of research in this field.

Under President Xi Jinping, Confucian values are being promoted that tout the virtue of the heterosexual norm and traditional roles, particularly for women – for instance, women who do not marry before the age of 30 are stigmatised as ‘leftover’, LGBT [lesbian, gay, bisexual and transgender] and other sexualities are cast in a negative light and even feminism has been targeted with campaigners arrested for such actions as distributing stickers about sexual harassment (as happened in Beijing in 2015).

Yet alongside those constraints, women's ‘sexualised labour’, in which their gender is considered salient to their work, is playing an important role in business and politics, she said.

“China's rise to power has been based on economic prosperity, which is one of the most important ways to justify the political regime. The regime wants Chinese people to believe in the China dream, so it has to make sure that the business world is functioning well. And to do that, it has to use women's sexualised labour,” she said.

Physical and emotional labour

The most obvious form of sexualised labour is sex work, of which seven types have been identified ranging from mistress to karaoke bar hostess to streetwalker. These women, particularly at the higher end of the scale, are often present in the nightclubs and bars where business deals are made and they provide foils for men to show their bosses and clients that they have the necessary social skills to succeed.

“These women's labour is not just physical labour, it's emotional labour. Businessmen's masculinity depends a lot on their ability to socialise and conduct themselves as cosmopolitan subjects and this depends on the co-production and participation of women in different settings,” she said.

“The women are also the lubricant to smooth out tensions, as well as provide beauty, aesthetics and entertainment. Nobody recognises this because they are seen as just cheap labour, but they need to be there so the men can build the profitable relationships associated with the Party-state economic enterprise.”

Sexualised labour also happens in other settings where women step into the gendered or sexualised roles that the new economy demands of them. Wives accept their husbands have to spend long nights on business entertainment – potentially sleeping with other women – because it is good for the family income and the nation's prosperity. White-collar office workers are expected to dress demurely but are objects of men's sexual banter. Businesswomen are encouraged to play up their feminine charms to cut deals, but then have their achievements downgraded because of this (they are also often

left out of situations where deals are typically made, such as nightclub visits).

Balancing act

Professor Ho said these roles emerged with China's opening in the 1980s and 1990s and have intensified in recent years. But they have also required the government to perform a curious balancing act. While the current government has signalled that it does not tolerate sex work, its ‘Sweep Yellow’ campaign targeted lower-end prostitution and pornography, not the high-end prostitution that businessmen and officials engage in.

“Women's work and the way they conduct their gender roles and present themselves as new sexual subjects are all important to China's economic prosperity and political legitimacy,” she said. “Most people think sex is a marginal topic, but it is an entry point to understanding the whole post-socialist China.”

In that regard, she has been disturbed by the growing intolerance for academic research about sexuality, sexual diversity and feminism in China that has occurred alongside the promotion of Confucian values and the crackdown on prostitution. Recently, Professor Ho has had collaborators and research students on the Mainland withdraw from projects and publications out of fear of the potential repercussions.

“In this climate of increasing censorship, the lack of clarity about what is or is not permissible makes scholars and activists ever more cautious and likely to engage in self-censorship,” she said. For now, studies on the bedrooms of the nation will fall to scholars based outside the Mainland, such as Professor Ho. ■



Professor Anthony Yeh Gar-on (left) and Dr Zhong Teng (right) won the gold medal at the Geneva International Exhibition of Inventions.

A NEW ANGLE ON NAVIGATION

The Urban Planning and Geographic Information Systems (GIS) team has found a solution to the blind spots in city roads that have eluded global positioning systems (GPS) for decades.

Hong Kong's metropolis is notorious for its complex, multi-level road systems, with flyovers, tunnels and complicated junctions. While such systems enable more traffic to pass through major cities, current GPS devices have problems identifying which road level a vehicle is on, leading to safety issues and frustration for drivers.

Professor Anthony Yeh Gar-on said: "Picture the scene, you are navigating in your car using a GPS, when instead of taking the road directly ahead as instructed, you erroneously veer into the left-hand lane which is the on-ramp of a flyover. Since the flyover is above the road which you are meant to be on, the GPS does not realise your mistake and continues to give you instructions as though you were on the

road beneath. Not only does such a situation lead to extra stress for drivers, but it can also cause accidents."

The GPS was developed in the 1970s and came into common usage in the 1990s, but failure to recognise road levels has been a persistent problem that has gone unresolved over the decades.

In multi-level road networks, the GPS flits between flyover and ground level as it cannot figure out where it is. "The horizontal error of GPS is 10 to 30 metres," said Professor Yeh, "so it cannot always recognise which lane you are driving in. The vertical error is 15 metres, whereas flyover height is usually 9 metres. Furthermore, existing vehicle positioning systems

use consumer-grade GPS and the transport geographic information system (GIS-T) database is largely two-dimensional only."

Angle Difference Method

To solve the problem, Professor Yeh and Dr Zhong Teng, both from the Department of Urban Planning and Design, HKUrbanLab, GIS Research Centre and Institute of Transport Studies, developed the Angle Difference Method (ADM).

Dr Zhong said: "Our method compares the vehicle pitch angle with the inclination angle of different road levels calculated from road elevations which we propose will be stored in future in GIS-T databases. The method uses an



“Our device enables you to trust your navigation system again – it gives you back your confidence in it. Safety is all about confidence.”

Professor Anthony Yeh Gar-on

onboard diagnostic (OBD) device, which measures the real-time velocity of the vehicle, and a smartphone whose motion sensors enable the device to compare the angle of the road with the angle of the car. In short, it works out if a car is entering the ramp of a flyover."

To implement the Angle Difference Method, the vehicle inclination angle needs to be measured accurately, which existing in-vehicle inclinometers can do but they are both large and expensive. By comparison, the portable OBD is inexpensive and performs automatic calibration to remove the misalignment pitch offset angle in both stationary and moving modes.

Professor Yeh said: "Many modern vehicles already have an OBD, and with the advent of automatic cars all vehicles will have it. Nowadays, everybody has a smartphone – which contains, among other motion sensors, a gyroscope. The phone can be placed anywhere

within the vehicle and will work with the plugged-in or installed OBD."

"When a vehicle approaches what we term the Ramp Decision Zone," said Dr Zhong, "the device compares the angle of road and vehicle and informs the driver instantly, and with 100 per cent accuracy, if he or she has entered a flyover." This instant information reduces the chance of accidents or stress caused to driver trying to follow instructions from a GPS that thinks a vehicle is in a different road level to where it is actually located.

"When that happens people start to not trust the GPS device," said Professor Yeh. "Our device enables you to trust your navigation system again – it gives you back your confidence in it. Safety is all about confidence."

Professor Yeh and Dr Zhong have received both a US patent and an International PCT [Patent Cooperation Treaty] patent and they are

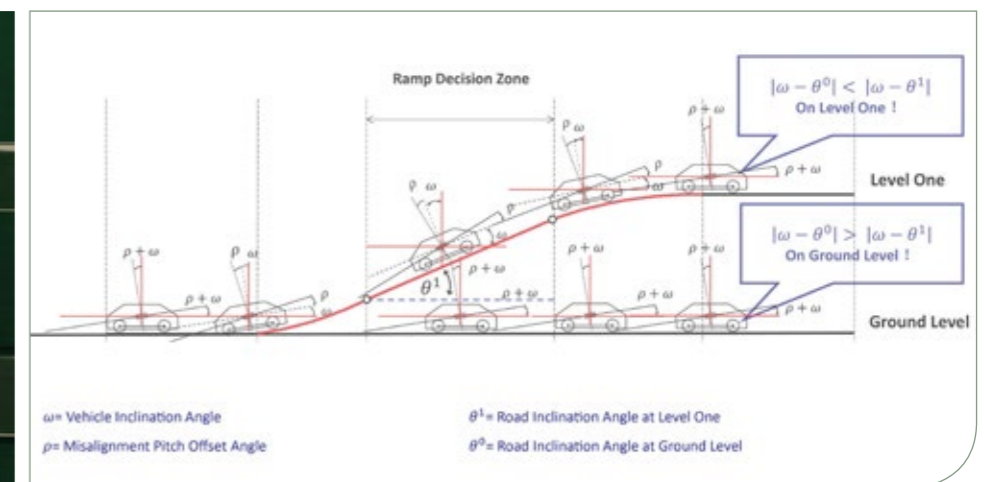
currently talking to global GIS and vehicle navigation operators, regarding getting the relevant advice on flyover inclinations. These operators include major Chinese companies, with whom the team is discussing potential applications for the system, particularly in major cities with complex road systems.

The invention won the gold medal at the Geneva International Exhibition of Inventions in April, 2018. It has also generated several academic papers published in top international academic journals including *IEEE Transactions on Intelligent Transportation Systems*.

"Navigation has always been one of my key research areas," said Professor Yeh. "I have been involved in navigation research for some 20 years." His work has included the international award-winning HKU Virtual Campus (Internet and Intranet GIS) in 1997, and a real-time traffic multimedia internet geographic information system in 1998. ■



The navigation system uses an ordinary smartphone which is connected to an onboard diagnostic device by Bluetooth.



The Angle Difference Method for determining which road level a vehicle has entered.



HOW DONALD TRUMP ESTABLISHES HIS CHARISMA USING OUTSIDERS AS 'FOLK DEVILS'

Dr Paul Joose has drawn on years of research into charismatic leaders of new religions and social movements to find striking similarities with the rise of the US president.



“ He realises that the basis for his authority is a very emotional, primal connection that he has built up with a devoted base of followers, and anything that comes in the way of that threatens to disconnect him from this base. But how do you operate an incredibly complicated political system on this basis? ”

Dr Paul Joose

In 2015, Dr Paul Joose arrived at HKU's Department of Sociology from Canada and was considering how to apply his expertise on charismatic leaders in emerging religious and social movements, when Donald Trump announced he would run to be the Republican nominee for American president. Most people initially wrote Mr Trump off as a joke, but Dr Joose saw some familiar and disturbing patterns.

Like charismatic leaders of social movements and religious cults, Mr Trump basks in courting controversy, stirring dissent, stoking fear and attacking the establishment.

“It's a truism in the sociology of religion that if you have no tension with wider society, you will have no basis for appeal to followers. Many cult leaders court controversy because it gives people something that is different from what they've been hearing. Time and again, we heard from Trump supporters that he was saying things they weren't hearing from any other candidate,” he said.

Yet even as he attacked the establishment, Trump sought and succeeded in creating a position for himself within it. This success led Dr Joose to dig deeper and propose a theory that brings together two seemingly contradictory ideas.

One is 'moral panic theory', in which pillars of society seek to solidify their own moral authority in society by constructing or playing up 'folk devils'. The other is the theory of charisma, in which leaders emerge by attacking traditional morality and establishing a new moral vision. Trump managed to do both.

'Extraordinariness' of Trump

Trump simultaneously condemned contemporary 'folk devils' in American society, such as Muslims and immigrants, while putting forth the idea that the establishment leaders were not doing enough to protect society from them.

Furthermore, Trump's proposed solutions – like banning Muslims and building a border wall – were as much aimed at Republican leaders as Democratic ones, because he consistently criticised the Republican establishment as being 'weak' on issues that are traditionally important to its base.

“We of course need to pay attention to how Trump's messaging is an attack on migrants, women and people of colour, but it's also every bit as much an attack on the Republican establishment itself,” said Dr Joose.

In fact, the Republicans were a necessary foil – what Dr Joose dubs a 'counter role' to Trump as charismatic leader. Their reactions of shock and outrage legitimised Trump by confirming the notion that he is an extraordinary, special figure who only comes once in a lifetime.

“Very often we have seen how astonishment and condemnation create a sense of extraordinariness around Trump. In reality, he has merely parroted some of the unacceptable statements you might hear around the Thanksgiving table. But these statements became remarkable when he expressed them where no one else would – on the debate stage,” Dr Joose said. “Trump has been called 'Teflon Don' because he can say and do things that would kill the political career of anyone else. Supporters see this as a miraculous ability, and so this adds to his appeal.”

Sustainability challenge

Dr Joose's theory on moral panic and charismatic leaders draws on work by sociologists such as Max Weber, who pointed out that charisma is unstable and liable to diminish over time. Trump seems to fight against this constraint by continuing to hold political rallies long after winning the presidency, and firing staff who try to rein him in.

“He realises that the basis for his authority is a very emotional, primal connection that he has

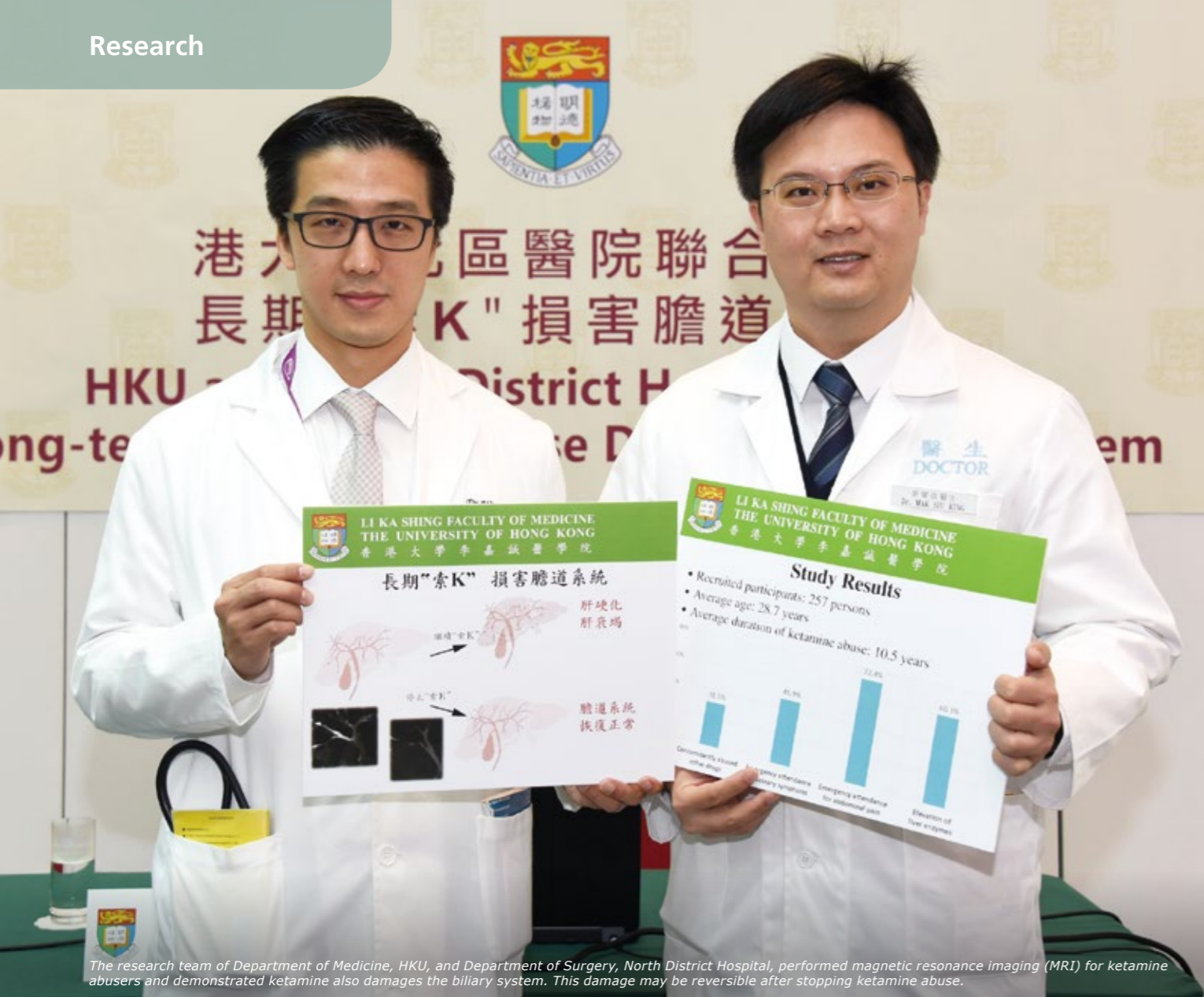
built up with a devoted base of followers, and anything that comes in the way of that threatens to disconnect him from this base. But how do you operate an incredibly complicated political system on this basis? This is why charisma is often a flash in the pan. It accomplishes initial victories but isn't sustainable over time unless it's transformed into some other form of power.”

Dr Joose is now going full circle, taking some of the ideas he developed while studying Trump to look again at political leaders that preceded Trump, but who were forerunners for his style. He is particularly interested in figures who were widely viewed as 'entertaining', such as Toronto's crack-smoking former mayor Rob Ford. “Rob Ford and maybe [former wrestling star turned American governor] Jesse Ventura showed – before Trump ever did – what outlandish behaviour can do for you in a political system such as what we see in the US currently. It can help you.”

Dr Joose's work on charisma recently won the American Sociological Association's 2018 Clifford Geertz Award for Best Article in the *Sociology of Culture* and has been published in high impact journals such as *Social Forces*, *Sociological Theory*, and *The British Journal of Criminology*, among others. ■



Dr Joose's 'Expanding Moral Panic Theory to Include the Agency of Charismatic Entrepreneurs: The Case of Donald Trump' was published in *The British Journal of Criminology*.



The research team of Department of Medicine, HKU, and Department of Surgery, North District Hospital, performed magnetic resonance imaging (MRI) for ketamine abusers and demonstrated ketamine also damages the biliary system. This damage may be reversible after stopping ketamine abuse.

UNDOING DAMAGE DONE

Research team finds that long-term ketamine abuse harms the biliary system, but the damage can be repaired if the user quits the drug.

Long-term abusers of the psychotropic drug ketamine often experience abdominal pain, frequently have elevated liver enzymes, and also commonly suffer abnormalities of the biliary tract. The clinical profile, risk factors and disease course of such ketamine-related biliary damage had never been investigated properly, until a recent collaborative study between HKU and North District Hospital (NDH), which performed magnetic resonance imaging (MRI) on 257 ketamine users. The results demonstrated that long-term abuse of the drug does result in damage to the biliary system but that this damage may be reversible if the user quits his/her ketamine habit.

"The study enhances our understanding of the toxic effects of ketamine on the biliary system and the liver," said Dr Walter Seto Wai-kay, Clinical Associate Professor of Gastroenterology and Hepatology in HKU's Department of Medicine. "Hopefully the findings will motivate drug abusers to quit."

More popular than cocaine

"Ketamine abuse, particularly among adolescents and young adults, is very common in Hong Kong and South East Asia," said Dr Seto. "It's more popular than cocaine. The drug comes in powder form so it is inhaled like

cocaine – and Asians prefer this as they tend not to like injecting themselves. Also, unlike cocaine, it is cheap."

Working with Dr Mak Siu-king, Associate Consultant in the NDH's Department of Surgery, the research team recruited ketamine abusers from the community via a network of charitable NGOs which offer assistance to drug abusers in Hong Kong. Participants were given an MRI of the biliary system as well as blood tests and clinical assessment. The MRI findings were then interpreted by two radiologists who did not know the clinical profiles of the participants.



“ The study enhances our understanding of the toxic effects of ketamine on the biliary system and the liver. Hopefully the findings will motivate drug abusers to quit. ”

Dr Walter Seto Wai-kay

A subset of participants, including individuals who had subsequently quit ketamine, were invited for a second clinical assessment and MRI scan. "One year on, the damage to the biliary duct in the patients who had quit was found to have completely gone," said Dr Seto. "Their liver enzymes were normal, they had no stomach pain."

Dr Seto's association with ketamine research goes back seven years to when he wrote a report on the damage the drug causes to the body. "No one else had written about it at the time," he said. "Abuse of ketamine was not common in the Western world then, but now it is increasing in parallel with the increasing Asian populations of big cities there."

Ketamine is a strong hallucinogen which sparks agitation and aggression and causes reduced awareness of the immediate surroundings, which puts the user in danger of physical harm. Long-term abusers of the drug can also suffer cognitive defects, short-term memory loss and damage to the bladder and kidneys.

Statistics from the Central Registry of Drug Abuse of the Hong Kong government's Narcotics Division, report ketamine as the most commonly abused psychotropic drug in Hong Kong from 2006 to 2014, and the second most common in 2015. 23.1 per cent of reported drug abusers in Hong Kong used ketamine, with the proportion increasing to 39 per cent in individuals younger than 21 years of age.

The research team recruited 257 ketamine abusers, with an average age of 28.7 years, and who had been abusing ketamine for an average duration of 10.5 years. 72.4 per cent had a

history of emergency attendance for abdominal pain and 45.9 per cent for urination problems. 60.3 per cent had elevation of serum ALP, a liver enzyme that reflects biliary tract damage. 159 participants (61.9 per cent) had abnormalities of the biliary system on MRI, with 53.3 per cent of those having damage to the larger biliary ducts while 35.4 per cent had damage to the smaller biliary ducts.

Help from NGOs

Dr Seto admits that getting users to volunteer to take part in the study was difficult at first since few wanted to come forward and admit their addiction. "In the end, NGOs working with drug abusers helped, they persuaded people to

volunteer," he said. "In fact it was only through this study I came to realise just how huge the problem is and, as a result, the huge number of people who are involved in tackling drug abuse in Hong Kong."

He goes on to say that he believes ketamine abuse to be much more widespread than the authorities realise. "The only statistics available are, first, from hospitals when someone has been admitted and, second, voluntary data – so it seems likely there could be a much bigger problem out there. We hope the results we have found will encourage more people to give up ketamine when they see that they can make a full recovery." ■



A patient describes how her life and health returned to normal after quitting ketamine.

THE SCREEN EFFECT TROUNCES THE GREEN EFFECT

Taking a break in a green environment has long been known to give the brain a rest and improve attention. But if that break is spent staring at a screen, you may as well be surrounded by brick walls, a new study finds.



We are physically in green spaces but often mentally still occupied by the screens.



“Watching the wind blow through trees or an insect crawl through grass allows the mind to wander and lets that part that engages in ‘hard fascination’ take a break.”

Dr Bin Jiang

Dr Bin Jiang pays close attention to the impact that surroundings have on people, as befits the Head of the Virtual Reality Lab of Urban Environments and Human Health in the Faculty of Architecture. But that two-part interaction has become complicated by a third factor – the virtual world and its increasing dominance of people’s time. The global population will spend the equivalent of one billion years online this year, according to the World Health Organization. In response, Dr Jiang and fellow landscape architects in the US recently studied how this obsession with virtual reality is affecting people’s encounters with their physical environment.

The study compared the before-and-after attentional function of participants who were given cognitive and attention tests broken up



The study compared the before-and-after attentional function of participants who were given cognitive and attention tests broken up by a 15-minute break. Participants were randomly assigned to the barren settings (left) and green setting (right) during the break.

by a 15-minute break. The key was what happened during the break. One group was sent to a barren concrete area, the other group to a green area with trees. Within each group, half were told to leave their laptops behind and the other half were told to bring them and use them as they normally would for recreational uses, such as checking social media or watching YouTube videos. The results were rather depressing for anyone who thinks these activities constitute a ‘break’ from work.

“Being in a green environment without a laptop was the only treatment that had a significant enhancement on attention function. Using electronic devices when taking a break in this setting substantially counteracts that benefit,” Dr Jiang said.

And that effect can undermine the ability to pay attention because green environments have been shown in numerous previous studies to boost attention power.

Attention deficit

“Attention is a critical resource. Think of how many people are killed in car accidents because drivers lose attention or don’t have the mental energy to accurately control their vehicles. If you look at factories in China and developing countries, how many people get injured because they are tired and don’t have the energy to focus attention on operating the machine correctly? Any occupation that requires paying close attention can be affected,” he said.

In addition, there was a significant attentional difference between those who spent more than 50 per cent of their break looking at a screen and those who spent less.

The researchers proposed that the effect of the screens might be due to their interference with ‘soft fascination’, which tends to free the mind. “Watching the wind blow through trees or an insect crawl through grass allows the mind to wander and lets that part that engages in ‘hard fascination’ take a break,” Dr Jiang said. On the other hand, using electronic devices involves

hard fascination so there is no opportunity for such a break.

The obvious response to these findings is to put down electronic devices when taking a break and soak in some green scenery, but there are also profound implications for landscape architects.

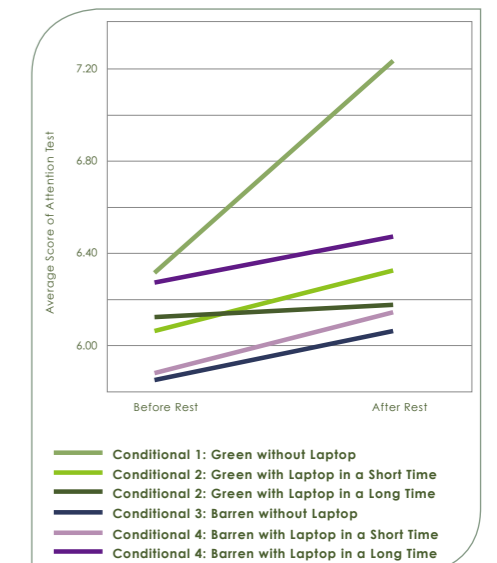
Redefining ‘place’

“The idea of place has been redefined and blurred by the powerful interruption, some would say aggression, of digital devices. Fifteen years ago, you would go to a park or street or plaza and that physical environment was the dominating setting for your physical and mental state. Now, with your electronic screens, physically you are in that place but mentally you are in another place,” he said.

“As designers, when we create a place, we are no longer competing with other designers who create other physical places. Our competitors are computer scientists and engineers who are deliberately designing digital environments that drag away people’s attention. This makes our job even more challenging. We have to make a greater effort to get people to pay attention to the landscape and the environment, let their hands catch insects, their eyes move around,

and have surprising features like pop fountains, so they will put their phones aside.”

The study was published in *Environment and Behaviour* and attracted considerable attention around the world, being covered by 17 media outlets in the US, Belgium, the Netherlands, Mainland China, Hong Kong, Malaysia and India. ■



Changes in attentional functioning after six rest conditions – only the ‘Green without Laptop’ group yielded significant attention enhancement.



Children on a bunk bed designed by Architecture students under a parallel research and experiential learning programme.

MICROSPACES MADE LIVEABLE

Hong Kong's tiny subdivided flats are here to stay, reckons Juan Du, Associate Professor and Associate Dean (International) of Architecture. So she and her students are helping make it easier to live in them.

More than 90,000 households in Hong Kong live in subdivided flats – regular flats divided into units of a few square metres in area – and the number is growing. Families with growing children cram all their belongings into spaces where there is little room to move or even sleep, as Juan Du of the Department of Architecture discovered.

In Aberdeen, she came across a single mother with two teenage children who lived in five square metres. The mother shared a single bunk bed with her daughter and could never get a good night's sleep – her six-foot-tall son had the top bunk. Thanks to Ms Du and her students, the family's situation has changed. Under a parallel research and experiential

learning programme, they devised a staggered, three-layered bunk bed so each family member could have their own bed with space above their heads, while still accommodating their refrigerator, storage boxes and other furniture.

The programme, which is run under the Urban Ecologies Design Lab (UEDLab) led by Ms Du, has performed a similar service for 30 families and counting.

"The triple-bunk bed design was really the epitome of how every millimetre counts in such tight spaces. We had to shave the structure and fittings to the thinnest, most minimal possible," she said. "This was a valuable lesson for my students to understand that a design project is not just a formal exercise but can really impact the way people live."

Portable solutions

The programme is contextualised within an examination of the global rise of informality in housing. Informality refers to slums, urban villages, ghettos, and other densely populated



Students teaching the participating family how to assemble the furnishings themselves.



“Subdivided flats are necessary in a city where the formal channels cannot provide for a large population who are here legally to work and contribute to the economy and culture of the city.”

Ms Juan Du

settlements that are often the only source of affordable housing for a large share of the working population. Hong Kong's subdivided flats play that role for those who do not qualify for the city's public housing, she said.

The NGO Caritas helped Ms Du and her students survey families about their living space and seek volunteers for a retrofit of their flats. At first this was difficult. Families were wary about letting strangers into their home, were not convinced the work could make a difference, and were busy with job, childcare and other demands. But finally, six families came forth.

Students visited the families in pairs and where accompanied by Ms Du or her research assistants. They also received sensitivity training from Caritas social workers and were given ground rules by Ms Du: interviews were limited to 20 minutes, solutions could not involve changing the structure of the homes, and any furnishings to be built had to be easy to assemble and carry up narrow stairways since many subdivided flats are in walk-ups without elevators.

The students also had to teach the families how to assemble the furnishings themselves in case they had to move (tenants in subdivided flats often face eviction when buildings are

redeveloped). Members of the UEDLab conducted follow-up visits to make any necessary adjustments to the constructions.

After the success of the first installations, more families started volunteering for the programme. There have been four iterations with Ms Du's students and Caritas has started to involve other design schools – something she welcomes because she would like all design schools to engage in this work.

Few alternatives

Other organisations have also taken note. In 2017, Ms Du was approached by the Society for Community Organization (SOCO) to contribute to their project to improve the living environment of subdivided homes. They are also collaborating on a government-subsidised programme to convert vacant flats into subdivided units, as some of these flats may stay vacant for years awaiting redevelopment, and they have just completed a housing project for the homeless.

These projects not only provide lower-income families and individuals with better living space, they also inspire students. Bernard Ian Kay, who just completed his Master's in Architecture, worked on a project to develop storage containers and a desk for a family living in the

curved part of a building. The four pieces had to be easily adapted to a straight space in case the family moved.

"As we were about to deliver the furniture, the family received an eviction notice, but they were able to use the furniture in their new unit," he said. "It was most meaningful to see their sense of joy and hope when we brought them the furniture."

Ms Du said subdivided units were not going away because there were few alternatives for people who could not afford prohibitive market rents or the long wait for public housing.

"Subdivided flats are necessary in a city where the formal channels cannot provide for a large population who are here legally to work and contribute to the economy and culture of the city. Obviously, these small installations we provided are not long-term solutions. But they are a mechanism for us to understand more about how people live and to contribute knowledge to the discussion of subdivided flats and housing in general in Hong Kong, beyond numbers, statistics and square footage," she said. ■



Students constructing the bunk bed.



Bernard Ian Kay (second from right) worked on a project to develop storage containers and a desk for a family living in the curved part of a building.



Students interviewing the retired fishermen on the past of Shau Kei Wan.

INSIGHTS ON SEEING THE SIGHTS

Students are producing guidebooks on the lesser-known parts of Hong Kong for a course that looks at modern tourism and the challenge of providing authentic experiences to visitors.

Mass tourism emerged in Europe in the wake of the Industrial Revolution and spread to the rest of the world. But in the 21st century tourism is moving beyond the masses to more specialised

offerings. Individual tourism, eco-tourism, heritage tourism and the like are creating new kinds of tourism experiences and new opportunities and challenges for the industry.

Even the definition of a tourist is in flux. Is an exchange student a tourist? Is a visitor here on business a tourist?

These questions are the focus of a sociology course, 'Tourism, Culture and Society' that teaches students about tourism not only with lectures, texts and overseas examples, but also experience.

The students join a local tour and write reflections that put their experiences in a theoretical context. They also work in groups to produce tourist guides for other, little-known sites in Hong Kong so they can see tourism from different perspectives.

Dr Gary Wong Pui-fung of the Department of Sociology has been teaching the course for four years and has drawn on his publishing contacts to help turn the students' work into guidebooks and maps about Pokfulam, Ha Tsuen in Yuen Long and most recently, Eastern District.

"One of the key concepts we ask them to apply is authenticity. Are the tourist attractions they



“Some people argue that it’s impossible for tourists to have an authentic experience, but it is also difficult to say an experience is inauthentic if it involves real people living in Hong Kong.”

Dr Gary Wong Pui-fung

visit and the people they meet and the food they eat authentic from a local perspective? Some local tour guides will even invite local residents to talk to visitors. Is it authentic if it's staged like that? Some people argue that it's impossible for tourists to have an authentic experience, but it is also difficult to say an experience is inauthentic if it involves real people living in Hong Kong," he said.

Off the beaten path

Students are challenged to address this issue by focussing on places off the beaten path and considering how to make these interesting to visitors – a task made easier by the fact that about 20 to 25 per cent of each class is typically made up of students from outside Hong Kong, who know little of Hong Kong's heritage and who provide a useful sounding board. On the Pokfulam Village project, for instance, they questioned why this small village near the HKU campus was of any interest at all.

"Some of them asked why they had been taken to this squatter area. But there are buildings there with traditional tiled roofs and structures, and the village has strong cultural traditions and a long history," Dr Wong said. In the end, the class produced an attractive guidebook with maps, overlays and interesting descriptions that also covered urban development and the threats to the village's built heritage.

Another class focussed on Ha Tsuen and they were instructed to visit the same sites but choose different themes around which to present them, such as governance in the region stretching back to the Tang Dynasty, traditional festivals, or the oral history of a resident.

Tracking trends

In Eastern District, there were plenty of opportunities to explore social and historic

trends. For instance, one group looked at entertainment in North Point, where many theatres and nightclubs popped up in the post-war era after Shanghaiese and Fukieneese natives flooded into the area. Most of these sites have disappeared due to redevelopment and population shifts, but the students were still able to record reflections on the golden days through an interview with Cantonese opera star Law Kar-ying. They also spoke with a local tour operator who is petitioning the government to preserve the State Theatre, a landmark in North Point.

Lui Kam-shing, a third-year BA(Conservation) student, worked on an Eastern District project called 'The Hidden Spirit of Defending Hong Kong: A study on tourism in Chai Wan, Siu Sai Wan and Cape Collinson', where remnants of

World War II battles can be found. "I was surprised by how a local walking cultural tour can affect both local and overseas visitors and arouse their awareness about the inner parts of Hong Kong," he said.

All projects have involved community partners. For Eastern District, Dr Wong and his students worked with the Swire HK Archive Service and Swire Properties Community Ambassador Programme, and Swire exhibit their work at Taikoo Place in January, 2019. For Pokfulam and Ha Tsuen, they worked closely with local village associations. The Ha Tsuen maps are available at the village, while the Pokfulam guidebook is available through the Hong Kong Tourism Board. The student tourists have thus contributed to Hong Kong's tourism resources. ■



Swire HK Archive Service providing support to students on archival materials about the development of the Eastern District.



Students carrying out interviews together with the volunteers from the Swire Properties Community Ambassador Programme.



The Correctional Services Department is using virtual reality technology to train prison guards in such things as night patrols.

WHEN THE VIRTUAL MEETS REALITY

Prison guards, police officers, cargo handlers, nursing students and others are all benefitting from virtual reality technology developed at HKU.

How do you train people in jobs where one wrong move can have dangerous consequences? Very carefully, is the traditional answer. But with virtual reality (VR), it is now possible to engage these learners in decision-making scenarios before they apply themselves in the real world. Dr Henry Y K Lau of the Department of Industrial and Manufacturing Systems Engineering (IMSE) is at the forefront in developing such VR technology in Hong Kong.

Over the past 15 years, Dr Lau has led the evolution of the imseCAVE, an immersive technology that began with a joy stick, large projectors and cloth screens to train cargo handlers at the container terminal, but is now a sophisticated training tool offering interactive stereo images and 360-degree video using high definition projections, wearable VR goggles, multi-player scenarios and the incorporation of real-life features, such as a fire-truck cab.

“There’s a lot of interest in the public about this field because of the fantasy and ‘wow’ factors of being able to perceive virtual worlds and to teleport

yourself to scenarios that may never be easy to access. But we’ve been able to develop a lot of practical uses for this technology, too,” he said.

Apart from the container terminal, Dr Lau and his team were commissioned by Cathay Pacific

to develop a system to train workers in loading cargo using the virtual system plus a real-life control panel, and by the Hong Kong Airport Authority to develop a system to train operators in connecting passenger airbridges to aircraft and drivers in operating vehicles on the airfield.



The imseCAVE team led by Dr Henry Y K Lau (centre).



“ There’s a lot of interest in the public about this field because of the fantasy and ‘wow’ factors of being able to perceive virtual worlds... But we’ve been able to develop a lot of practical uses for this technology, too. ”

Dr Henry Y K Lau

The Fire Services Department recently asked them to create a system that trains its drivers.

“Fire-truck drivers need to practise how to do emergency driving in real road conditions. People jump out, or cars don’t move out of the way. Should they overtake them or go off the road? We’re going to simulate various road situations authentic to Hong Kong and see how the firemen react,” he said.

Virtual crime scenes

Rather different from these operational kinds of training is their work with the Hong Kong Police to train crime investigators using mock crime scenes. The trainees can move around the scene and identify and label evidence, such as weapons left behind, shoe marks and blood stains. Several trainees can be in the same virtual space at the same time and interact with each other and their supervisors.

“They can have a dialogue, there can be teaching, and the supervisors can assess whether the trainees are doing the right thing interactively in real time,” Dr Lau said.

HKU’s School of Nursing and Faculty of Engineering are also training students in

VR settings and the Correctional Services Department is using the technology to train prison guards in such things as night patrols. The latter has virtual prisoners that trainees can respond to, for instance in deciding whether to act on a request for a glass of water, although the technology is not quite able to allow real and virtual participants to speak to each other. That will require further development.

“Virtual reality is only one component in a cyber physical system. The others are artificial intelligence and data communication technology. Not until we bundle these three together can we create a more realistic virtual environment for people to interact. This remains a challenge,” he said.

Cyber sickness concerns

Another challenge is the need to better understand the effects of VR technology on users, such as cyber sickness. Dr Lau is working with academics and experts in the Department of Psychology to study these effects.

“For example, if you put on the VR goggles and the environment is changing or moving around you but you are not moving, you might feel unbalanced or dizzy after a few minutes and

can’t stay there very long. Why is that? Are there pathological issues in human perceptions? Are their visual cues that cause dizziness? Or is it because of hardware performance, such as delay, latency, flashing lights, colour, or the speed of movement of virtual objects? If we can dig down to the more psychological parameters, then we can develop much more powerful, effective and usable VR systems.”

In the meantime, there are many more uses to be had from the technology in its present form. Dr Lau has been involved in start-ups in the field, such as Hactis Ltd, which received TSSSU@HKU funding for the maximum three years and has successfully commercialised the imseCAVE. The company is applying the technology to healthcare and entertainment, as well as end-use by consumers.

“My role in start-ups is more as a mentor, but it is good to see the technology being used, rather than appearing only in academic journals. So far we are doing both things very well,” he said. ■



The Chief Executive Mrs Carrie Lam (second from right) in the Hong Kong Airport Authority’s virtual reality simulator which has been developed to train operators in connecting passenger airbridges to aircraft and drivers in operating vehicles on the airfield.



The team also works with the Hong Kong Police to train crime investigators using mock crime scenes.



The Department of Social Work and Social Administration collaborates with four welfare organisations to offer the second phase of their psycho-social intervention programme for children with eczema and parents.

MORE THAN SKIN DEEP

Hong Kong's first psycho-social intervention programme for children with eczema aims to help both the sufferer and their parents.

It was concerned dermatologists and pediatricians who first alerted Dr Celia Chan Hoi-yan and her team in the Department of Social Work and Social Administration to the stress and distress suffered not only by children with eczema but their parents too.

"They told us that parents of children with moderate to severe eczema spend up to three hours a day caring for their children's skin and often feel hopeless, helpless, guilty and depressed," said Dr Chan. "They feel it is their responsibility the child is suffering, that they somehow must have passed it on via genetic inheritance."

To alleviate the problem, the Department launched Hong Kong's first psycho-social intervention programme aimed at helping children suffering from eczema and their parents too. "We named the programme 'Seeing the Invisible' because we want people to see the person inside, not just the skin," said Dr Chan.

Explaining why eczema is so difficult to live with, she added: "First there is the physical distress itself – when it flares up the skin is unbearably painful and itchy, which leads to loss of sleep, agitation or anger, and diminished academic and

cognitive performance. A few children even experience developmental delay, meaning eczema sufferers can have lower body weight and smaller stature.

Stigmatised and isolated

"On top of that, there are the psychological and social aspects. There is a myth that eczema and psoriasis are contagious. Children with it are stigmatised and isolated at school, in the public domain such as transportation, at play, and even at the swimming pool. It's harrowing for the child and the parents.

"In addition, siblings can feel neglected because so much of family life must revolve around the sufferer's allergies and inability to do certain activities. Parents also often over-compensate – protecting the child too much. The situation can lead to family conflict, marital distress and even depression – it is a vicious circle. Recently there was a tragedy of suicide and homicide, committed by a young female whose death note contained complaints about her eczema."

The intervention programme uses the Integrative Body-Mind-Spirit intervention approach the Department employs already to help people with

problems such as psoriasis, chronic fatigue syndrome, insomnia and infertility. It is Hong Kong's first non-pharmaceutical intervention group programme and this is the first time the



Children summoning their inner detective. The programme aims to help children identify their inner strengths, build resilience and let out emotions effectively.



“Eczema is not life-threatening... what they need to do is to learn how to manage the condition and not let it run or ruin their lives.”

Dr Celia Chan Hoi-yan

Department has adopted a parallel group approach of aiding the children and the parents together.

"We talk to parents about their own well-being, instead of their parenting skills," said Dr Chan. "We try to demystify eczema, to help them resign themselves to the fact that there is no absolute cure and flare-ups will inevitably come and go. But we also point out positives such as eczema is not life-threatening, so what they need to do is to learn how to manage the condition and not let it run or ruin their lives."

Parents on the first programme also shared their side of the story and voiced the worries and doubts they have. One of these was that although many of them consult dermatologists, they then distrust their solutions, particularly if they prescribe steroids.

"We explain that if used properly medicines, such as steroids, are fine and they should move beyond steroid phobia, which often they have picked up from social media," said Dr Chan. "If it works, use it. The other side of this coin though is that some of them trust what we call 'folk medicine' or healing practices. That is, well meant but unfounded advice from friends, neighbours, social media etc. It seems everyone has an old wives' tale on your child's condition – they know a magical treatment or prescription that will cure it. It won't.

"We say 'be your own scientist'. Over time parents will learn what works best for their child, and will become confident in managing the eczema. And, that is exactly what they need to do – manage the condition and equip their child with the tools to deal with it on their own when they grow up."

Tools to cope

Another key element is to have the parents differentiate themselves from their child. "Your child is experiencing eczema, not you. Don't wrap them in cotton wool they need to develop tools to cope," said Dr Chan.



Self-help materials tailored for children with eczema and their caregivers.



Mindful jars can be a calming device that draws our attention to the quieting of emotions.

For the children, the programme implements body-mind exercises to help them articulate and regulate their emotions properly. "They are often bullied," she said, "and we show them how to cope with their anger and to express their feelings in socially acceptable ways. Instead of having a tantrum, to articulate and tell people what they are feeling.

"We use techniques such as making a 'mindful jar', which is filled with glitter and water. Shake the jar when you are angry – as the glitter scatters and then gradually clears try to settle your mind."

On the practical side, the programme teaches children how to enhance the process of applying skins creams – which they have to do repeatedly and lengthily – into a therapeutic massage process, turning it into a more positive experience.

Dr Chan and her team also found that simply being in the group helped the children feel

better about themselves. "They meet other children with a similar condition and it makes them feel more normal and connected."

The pilot programme had 92 pairs of participants, and after a press conference to publicise the results, the team received numerous calls from parents of more eczema sufferers keen to get involved. "Most are from middle-class families, and as we enter phase two of the programme we are keen to attract low-income families too, especially as it seems these are the ones most prone to listening to 'folk medicine'," said Dr Chan.

"For the next stage, we are also introducing some biomarkers such as blood tests and stress tests. The programme, which is a collaboration with four NGOs, with seven social service centres in Hong Kong, will last three years and we hope to have around 200 families participating." ■

A CITY MAP FOR PEDESTRIANS

Most street maps are designed to get cars from A to B. But now the Faculty of Architecture has an alternative: a 3D map that helps pedestrians navigate narrow walkways and footbridges, and provides a trove of data for app makers.



Hong Kong Island, Sheung Wan to Wan Chai: Central x-ray 3D view of the outdoor and indoor pedestrian network.

Hong Kong has one of the lowest car ownership rates in the developed world, made possible by its excellent public transport system which offers an easy way to get from one part of the city to the other. However, once you arrive at your destination, the going can be far more difficult.

The city's street-level terrains often have topographically challenging, multi-level, congested public spaces, some of which are partly indoors, making it difficult to establish your location even with the use of mobile phone GPS, which is notoriously inaccurate in Hong Kong. There may or may not be

footbridges and links between buildings, and it may not always be clear where these lead to. The going is even worse if you are in an unfamiliar area or encumbered by a pram, wheelchair or trolley.

Enter Alain Chiaradia, Associate Professor of Urban Planning and Design, and his team in the Faculty of Architecture's HKUrbanLab. The team has spent three years developing a 3D map that shows 21 different kinds of pedestrian pathways, such as stairways, parks, podiums, skyways, underground routes and pavements, that will hopefully address the commuter confusion.

"We are creating a digital infrastructure that will be in a way part of the government's smart city initiative. Most cities don't have pedestrian maps. If you go on Google, for example, you will get mostly a road network for cars with some adjustments, which might be good enough in most cities yet not in Hong Kong," he said.

Accessibility issues

The HKUrbanLab team, on the other hand, with supervision from Dr Guibo Sun, has digitally pounded the pavement and manually recorded all pedestrian pathways and which

buildings they lead to, as well as whether they are elevated or underground and whether they are located on a hill. The complexity of the task means it has taken them all of the three years to map the whole outdoor pedestrian network and the indoor pedestrian networks from Sheung Wan to Wan Chai, and complete smaller mapping of Sha Tin, which has less complicated topography, Tsuen Wan and Kwun Tong.

Mr Chiaradia said they were also collecting information on accessibility, such as the width of pavements and lift access. "We are trying to consider equity issues related to accessibility, which means not just disability but the ageing population," he said.

In that regard, they are working with Civic Exchange and the Hong Kong Council of Social Service on a separate project to study accessibility, called 'Walking with Wheels'. It aims at finding the best barrier-free routes for people in wheelchairs or with prams or trolleys, and this information is being incorporated into the maps.

Potential uses

All of the data gathered by the researchers is intended to become as widely and freely available as possible and various means of doing so are being explored. The expectation is that app developers will develop new uses and target audiences for the information, such as services that show the best pedestrian routes from A to B or locations of lifts and public toilets, or potentially coordinating driverless vehicles with passengers. There are also possible uses for this work in the Internet of Things, such as monitoring pedestrians through sensors, detecting obstructions for those walking with wheels, and detecting events of interest to particular users.

The data will also be used to feed into further research. Mr Chiaradia expected that the maps could help them collect information on such issues as active living and health, pedestrian congestion which has become a concern in cities around the world, and how to improve pedestrian connections within city networks. It is also hoped that the baseline of data provided

by the team's groundwork will lead to a more automated system to update information, such as through crowdsourcing or exploring the use of artificial intelligence.

"Walking in Hong Kong is a big challenge. In places like Central, the ground level is narrow and there is not enough space for people to even wait for the bus, there's barely enough space for people to walk. In particular places and times, you wonder, why should the car have so much space in comparison? The future allocation of street space could be dynamic, balancing people-centred priorities," he said. "If you want to do research in Hong Kong about the built environment, you need to have this detailed understanding of the pedestrian realm." ■



“Most cities don't have pedestrian maps. If you go on Google, for example, you will get mostly a road network for cars with some adjustments, which might be good enough in most cities yet not in Hong Kong.”

Mr Alain Chiaradia



A GENDERED APPROACH TO MENTAL HEALTH

Psychosis tends to strike women a decade or longer after men. The Department of Psychiatry has a new project that builds on its deep, long-term work and helps the most economically-deprived female sufferers treat this silent ailment as early as possible.

Early intervention for patients suffering from psychosis can be a matter of life and death. In 2013, research by Chair Professor Eric Chen Yu-hai in the Department of Psychiatry showed that young people aged 15 to 25 who received early intervention had a 62 per cent reduced risk of suicide and 46 per cent fewer suicide attempts. Findings like this gave impetus to a major Jockey Club-funded project to trial early intervention in older adults who were not being served. Now, Professor Chen is directing his expertise to a group that has been falling through the cracks: women from economically-deprived backgrounds.

Women tend to develop psychosis from their late 20s and 30s onwards, unlike men who tend to develop it in their late teens and early 20s. This suggests that external factors, such as stressful life events or living conditions, may play an important role in the onset of their disease.

“When we looked at the data from our last project, we found that for women whose household income was below the median, on top of financial difficulties they had more stressful events happening to them, such as significant physical illness or a family member being ill. They also had the disadvantage of

having less education and their cognitive function was more affected,” Professor Chen said.

Given these circumstances, he and his team launched a programme in May, 2018 that is reaching out to raise awareness, identify women at risk and intervene before they even develop psychosis. Three NGOs are partners in the pilot project – Caritas, New Life (a mental health NGO) and Hong Kong Federation of Women’s Centres – and other organisations, such as ethnic minority groups, migrant groups and the Department of Health, will also be involved.



“ We are not talking about just managing and treating somebody earlier and better. We are talking about preventing somebody from getting ill in the first place. ”

Professor Eric Chen Yu-hai

Going into the community

The project has several components. An online screening questionnaire has been created so women can see if they are at risk and what options they might have. There are also face-to-face encounters with residents at community events and through the outreach work of the NGOs, because a more active approach may be needed to identify women nearing the borderland of psychosis. Peers will also be trained to reach out to their neighbours.

Participants who display signs of illness are provided with options for treatment. Those with obvious signs, such as depression, will be directed to see a doctor, but for those with early symptoms of mental illness, Professor Chen’s group is offering psychological interventions in the hope that this can forestall the need for medication.

Women at a very early stage of illness will be offered ‘coaching’ to help them deal with

anxiety, work problems, family strife and the like and mobilise their own resources. Women who are at a later stage but who have not yet developed psychosis will be offered cognitive behavioural therapy, which has been shown internationally to be effective. The latter group may be more difficult to identify, so help is being sought from ‘gatekeepers’ such as NGO visitors, family and friends.

Holding back the flood

The women will also be encouraged to engage in physical exercise such as yoga, which was shown in earlier research by Professor Chen’s group to improve cognitive function, a particularly important consideration for women in economically-disadvantaged groups.

“We are not talking about just managing and treating somebody earlier and better. We are talking about preventing somebody from getting ill in the first place,” Professor Chen said.

“A good metaphor is a river that floods. We have seen vivid photographs of people living downstream who pile up sandbags to try to keep the water away. What we are hoping to do is go to the source of the problematic river and identify and correct the potential problems before they go downstream.”

The project is being piloted in Kwai Tsing, Tsuen Wan and Sham Shui Po and is expected to run for several years. Professor Chen plans to do a randomised control trial of those receiving cognitive behavioural training and those receiving the usual support from social workers and mental wellness centres to see what difference the therapy makes. This will provide evidence for extending the model to the rest of Hong Kong. ■



Speakers and representatives from the collaborating organisations at the press conference on the survey of Hong Kong stressful life events and life satisfaction.



Earlier research by Professor Chen’s team has shown that engaging in physical exercise such as yoga could improve cognitive function. It is a particularly important consideration for women in economically-disadvantaged groups.



Ms Dora Chan (second from right) and students from the Faculty of Law prepared an 'E-package of DIY Residential Tenancy Agreement' to provide the public with free access to a residential tenancy agreement template.

DO-IT-YOURSELF HELP ON THE RENTAL HOME FRONT

The development of a DIY residential tenancy electronic package lets undergraduates put their knowledge of property law into practice and helps landlords and tenants save money.

A team of teachers and students from the Faculty of Law has developed the 'E-package of DIY Residential Tenancy Agreement', enabling landlords and tenants to draw up their own rental agreement without having to engage a lawyer or an estate agent.

The E-package was the brainchild of Ms Dora Chan, Principal Lecturer of the Department of Law. She supervised the students as they created and developed the idea, supported by an HKU Knowledge Exchange Fund granted by the University Grants Committee.

"Previously, I was a property law practitioner, and saw a gap in the market for this," she said. "On the one hand, most of our undergraduates study property law – and in particular tenancy law – in their second year. So they know the law but don't have any opportunity to put their knowledge into practice.

"On the other, landlords and tenants want to draw up their own tenancy agreements but don't know how. My idea was to bring the two together for a mutually advantageous cooperation." The concept behind knowledge exchange is for the University and the community to cooperate, collaborate and help each other, so this felt like a good fit."

At the moment, if people want to prepare their own tenancy agreement, they can buy a printed form from a stationary shop or download a sample from the internet, but these may contain errors or be out of date. "There are question marks over who prepared those templates, and if they had proper legal qualifications," said Ms Chan. "I have seen people get into trouble because the law has changed since the template was written, or because the form doesn't cater for their particular circumstances.

"Also in Hong Kong you need to have the agreement registered and pay stamp duty, but most of the existing templates don't tell you how to do that – some don't even mention that you need to do so. Failure to pay stamp duty or register would result in the tenancy agreement not being enforceable in court."

Available free via Community Legal Information Centre

Ms Chan's plan was to guide her students in developing the E-package and then to make it available for free to the public under the umbrella of the Law Faculty's CLIC [Community Legal Information Centre], which is a website providing free bilingual legal information to all. CLIC covers the 29 topics the Law Faculty feels would have the most direct bearing on people's lives. The main CLIC site receives an average of 4,400 visitors each day.



“ There is a gap in the market for legal support on residential tenancy agreements and the E-package has provided a valuable opportunity for students at HKU to apply their legal knowledge and to serve the public by filling that gap. ”

Ms Dora Chan

The E-package consists of two documents: the first is the template residential tenancy agreement; the second is a comprehensive set of guidelines on how to stamp and register a tenancy agreement.

While developing the E-package, between September 2017 and June 2018, Ms Chan and her students decided it was not sufficient to have it in English only as some members of the public may be more comfortable using Chinese. Ms Chan then invited Mr Edmund Cham, Adjunct Associate Professor of the Law Faculty, who teaches 'Use of Chinese in Law' to help. Mr Cham and the students in his course helped prepare the Chinese versions (both traditional and simplified Chinese).

"With the template, the public can fill in the essential information like names, rent and property details and they will have a tenancy agreement," said Ms Chan. "We asked ourselves what are the most important concerns of both parties? For the landlord, the biggest worry is that a tenant may default on the rent. For the tenant, it is what is my side of the deal? What am I entitled to for my rent and how am I protected? We have simple and clear provisions in the template covering these concerns.

"The guidelines take the public through what else they have to do after signing the agreement – paying stamp duty, registration etc. Before the E-package, landlord and tenant would have to look for procedures and gather

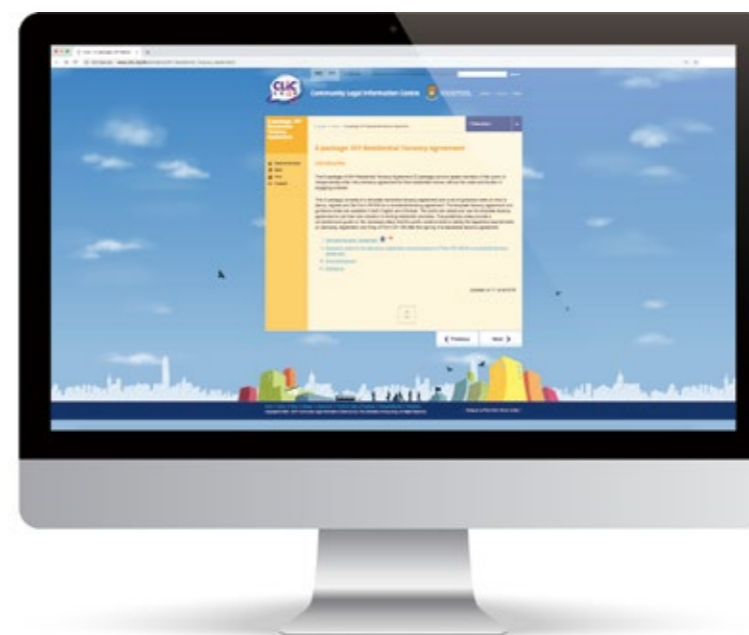
many forms from different government departments. The guidelines in the E-package include hyperlinks from various government websites leading to all the necessary statutory forms so people can access them easily via one place. This also means if any laws are updated, the hyperlinks should automatically go to the new government forms in future."

In its first three months of existence (from mid-June to August 31, 2018), the E-package has received an impressive page view count of 51,256 and a download count of 24,170. It also garnered a lot of media coverage on television, radio and in the press and on social media.

Asked if this was taking work away from property lawyers, Ms Chan said: "The E-package has satisfied a demand that was going unfulfilled by lawyers in the residential tenancy market for several reasons. One of the foremost is that the fees involved are relatively petty and therefore often are not commercially attractive to lawyers. At the same time, neither landlords nor tenants want to spend the time and fees to engage a lawyer. So I felt if we filled this demand we would not be treading on anyone's toes.

"There is a gap in the market for legal support on residential tenancy agreements and the E-package has provided a valuable opportunity for students at HKU to apply their legal knowledge and to serve the public by filling that gap." ■

For details, please visit www.clc.org.hk/en



The 'E-package of DIY Residential Tenancy Agreement' is now available to the public free of charge from the Community Legal Information Centre's website.

BIGGER, STRONGER, BOLDER: NEW HORIZONS FOR THE MEDICAL FACULTY

Li Ka Shing Faculty of Medicine is in the midst of an unprecedented physical and visionary expansion.



The Medical Faculty is taking forward a large-scale expansion and development plan in which the Sassoon Road will be transformed into one contiguous, state-of-the-science campus cascading from Queen Mary Hospital all the way down to the intersection with Victoria Road.



“ We are currently in the most fortunate position of being able to expand our space and pursue a visionary transformation, and it is not a moment too soon. ”

Professor Gabriel Leung

“This is a time of consolidation and execution, that is of transactional leadership. The focus is on the details and making sure we consistently achieve the highest standards. It is important to have vision and principles, but to deliver on them is even more critical.” That assessment by the Dean of Medicine, Professor Gabriel Leung, Helen and Francis Zimmern Professor in Population Health, was made in 2013 when he took up his position. He has indeed delivered on the details that were the focus back then – pursuing collaborative education opportunities for the different disciplines in his Faculty (medicine, nursing, Chinese medicine, pharmacy and public health), producing HKU’s first MOOC, upgrading platform research technologies, and commissioning two new hospitals, the HKU-Shenzhen (HKU-SZ) Hospital which opened in 2012 and the Gleneagles Hong Kong Hospital which opened in 2017.

But incredible new opportunities and a restless energy have enabled him to advance the Faculty much further. These advances will start to reach

fruition in his second five-year term as Dean, which started in August, 2018.

The government has given the green light to funding new and long-hoped-for developments at the Sassoon Road campus, stretching from Queen Mary Hospital down to the main building at 21 Sassoon Road. The Hong Kong Jockey Club Charities Trust has given the Faculty (and HKU) its largest-ever single donation to build a new cancer care and research centre in Aberdeen. The curriculum has been the focus of innovations that include a third-year ‘off-book’ for medical students, new articulation programmes and the coming launch of a new cross-disciplinary degree. And engagement with Mainland China is stepping up, with the HKU-SZ Hospital gaining recognition to upgrade its services and the Faculty being invited to join a high-level consortium of China’s elite teaching hospitals.

“We are currently in the most fortunate position of being able to expand our space and pursue a

visionary transformation, and it is not a moment too soon,” Professor Leung said. “Our student numbers have been increasing [MBBS intakes alone have nearly doubled since 2008 to meet demand for more doctors] and our staff numbers have grown alongside that. We have simply run out of space. We now will have the means to grow physically and to engage in the kind of blue-sky, forward-looking activities that will position us to truly lead in meeting the healthcare needs of the 21st century – in Hong Kong, the nation and the wider world.”

Campus expansion

The most resource-intensive changes are happening on Sassoon Road. In early 2018, the government announced it would allocate HK\$300 billion for hospital and teaching facility development, including upgrading and increasing teaching facilities. The Dean had long been planning to improve the medical campus and now has the means. “This is a golden opportunity for us. My vision is that



The Faculty leadership: (back row from left) Professor Gilberto Leung Ka-kit, Associate Dean (Teaching and Learning); Professor Chan Ying-shing, Associate Dean (Development and Infrastructure); (middle row from left) Professor Gabriel Leung, Dean of Medicine; Professor Leung Suet-yi, Associate Dean (Research); (front row from left) Professor Leung Wai-keung, Associate Dean (Human Capital); Professor Joseph Lui Cho-ze, Associate Dean (Clinical Affairs).

Sassoon Road will be transformed into one contiguous, state-of-the-science campus cascading from Queen Mary Hospital all the way down to the intersection with Victoria Road," he said.

This expansion comprises several components that will eventually be connected by walkways. At the base is 21 Sassoon Road, the main medical complex which opened in 2002 but long ago ran out of extra space. A new three-storey annex is being built next to the open-air carpark to house administrative offices and free space in the William MW Mong Block for teaching and learning. The library is also being upgraded to a Learning Commons with a variety of learning spaces.

Further along, the Faculty has been given 3 Sassoon Road, where a hospital laundry was located and which will now be redeveloped into a nine-storey building to provide a permanent home for the School of Nursing and School of Chinese Medicine. Two other Faculty buildings, at 7 and 8 Sassoon Road, are also being renovated and fitted with state-of-the-art equipment.

At Queen Mary Hospital itself, the University Pathology Building, which dates back to 1959, will be demolished to make way for a larger new block. The Departments of Pathology and Microbiology have moved out of the older building to an interim home (Block T) on the hospital grounds that offers them additional space. They will have a new purpose-built block when the second phase of the hospital's redevelopment is completed around 2024.

In addition to Sassoon Road, the Faculty will establish Hong Kong's first academic cancer centre at Grantham Hospital, which is itself



The first class of MBBS students embarked on their Enrichment Year in September, 2018. Students have the freedom to choose what and where to do their learning – going on exchange trips to top universities, pursuing intercalated degrees, joining service and humanitarian projects all over the world.



A wide array of activities, including academic conferences, reunions and outreach programmes, were held in 2017 in celebration of the 130th anniversary of the Faculty. The finale – the Homecoming Dinner – that took place at the Hong Kong Convention and Exhibition Centre in December, 2017 was attended by over 3,500 alumni, colleagues, students and friends of the Faculty.

being redeveloped. The Jockey Club pledged HK\$1.24 billion for a translational research block that will also be completed around 2024 and support personalised and precision medicine, as well as Hong Kong's first one-stop patient centre for psychosocial cancer care.

Enriching education

The 131-year-old Faculty's curriculum has evolved rapidly in recent years. For more than

a century, its main task was to train doctors using the same tried-and-tested methods. That started to change about 20 years ago with the introduction of Bachelor's programmes in nursing then Chinese medicine, and the adoption of problem-based learning. In the past decade two new programmes were introduced – pharmacy and biomedical sciences. In the past five years, overseas exchange cum articulation programmes have been organised for biomedical sciences students in veterinary surgery, physiotherapy, radiography and public health. And starting in September, 2019 a new interdisciplinary Bachelor of Arts and Sciences in Global Health and Development will be launched jointly by the Medical, Architecture, Business and Economics, Science and Social Sciences Faculties.

The rapid expansion of programme offerings – and increase in student numbers that has entailed – has not been at the expense of quality and relevance. The flagship MBBS programme to train doctors has undergone a truly innovative change with the introduction of the Enrichment Year in the third year of study. Students have freedom to choose what and where to do their learning – they can go on exchange trips to top universities in Europe, North America and Australia, pursue intercalated degrees to get an additional qualification, undertake research projects abroad or at HKU, or join service and humanitarian projects in the least privileged corners of the world.

The first class to benefit embarked on their Enrichment Year in September, 2018. Examples of their activities include doing DNA research at Yale, studying humanities at Oxford, interning with the World Health Organization (WHO), studying Chinese medicine and German culture, and volunteering in a children's home in Yunnan province.

"We want our students to take charge of their learning and have the space and latitude to explore and discover before the demands of their bedside training begin. We also want them to broaden their worldview," said Professor Leung. "I am unaware of any other medical school that has tried this approach and I am very excited by the wonderful options that our students have come up with. Everyone in the Faculty is looking forward to the wealth of experience they will bring back to HKU next year."

Mainland engagement

A third area where the Faculty is flowering is in its engagement with Mainland China. The Faculty has long been active with its Mainland counterparts through research collaborations, meetings and the like. This engagement began to be ramped up with the opening of the HKU-Shenzhen Hospital in 2012, which has overcome initial teething issues and become a platform for deeper cooperation. In the past two years, the Hospital has been certified as '3A' in Guangdong meaning it can train interns in various specialities, and it has permission to do Phase 1 to 4 clinical trials – all remarkable achievements for such a young facility. Most recently, it was one of nine provincial hospitals selected for 'Project Summit' to develop various domains of excellence, with total additional funding exceeding RMB 1 billion. HKU-affiliated teaching hospitals also received favourable recognition in a recent ranking of hospitals



The Li Ka Shing Faculty of Medicine was invited to join the China Consortium of Elite Teaching Hospitals in 2017.

“ We now will have the means to grow physically and to engage in the kind of blue-sky, forward-looking activities that will position us to truly lead in meeting the healthcare needs of the 21st century – in Hong Kong, the nation and the wider world. ”

Professor Gabriel Leung

in the Chinese-speaking areas (including the Mainland, Hong Kong, Taiwan and Macau). Queen Mary Hospital was named the 3rd best hospital overall and Hong Kong Sanatorium and Hospital 21st.

Alongside this recognition, the Faculty had the honour of being invited to join the China Consortium of Elite Teaching Hospitals in 2017. The Consortium comprises nine of the country's top teaching hospitals, which are working together to improve the country's medical system through enhanced doctor training and advance the government's 'Healthy China 2030' goals. "The Consortium marks a historical milestone in Hong Kong's deep re-engagement with the Mainland through our professional contribution," Professor Leung said. "This re-engagement will be a large part of our future, within and beyond the Greater Bay Area and the Belt and Road national narratives."

The Faculty is also pursuing opportunities in Hong Kong and the region to make an impact

through research collaborations and technology transfers. It recently signed a strategic agreement with Guangdong Pharmaceutical University and a new MoU [Memorandum of Understanding] with the Hong Kong Science and Technology Park on biomedical innovations. It is also the Asian hub of the Institut Pasteur of France and Karolinska Institutet of Sweden and the WHO's Reference Laboratory for Influenza and Collaborating Centre for Infectious Disease Epidemiology and Control.

"Historically, we have excelled where circumstances have given us a niche or opportunity to lead. This is one of those moments and we very much look forward to making our mark and contributing to advances in medical training and knowledge and clinical care, in Hong Kong, the region and the world. With all of the opportunities we have been given in just a few short years, our ambitions are boundless," Professor Leung said. ■



HKU's Dean of Medicine Professor Gabriel Leung, President of Institut Pasteur Professor Stewart Cole, and Chief Executive Officer of Hong Kong Science and Technology Parks Corporation Mr Albert Wong signed a Memorandum of Understanding in Paris in June, 2018 to set up a joint biomedical research centre. (Courtesy of François Gardy, Institut Pasteur)



NEW PRESIDENT TAKES THE PULSE OF HKU

Professor Xiang Zhang has been meeting with hundreds of members of the HKU community as he prepares to shape a new future for the University.

How do you find out what really concerns people? For HKU President and Vice-Chancellor, Professor Xiang Zhang, the only way is to dive in and meet them.

That was what he did when he noticed students commenting about a campus canteen's food on an unrelated web forum and decided to visit the canteen unannounced. "I spent half an hour talking with the students there. Now whether it is my job directly to fix this problem, no. But as leaders, we have to care about people's lives and help them find solutions," he said.

Since assuming office on July 17, Professor Zhang has taken the same approach in his meetings with all members of the HKU community, from academic staff to students to administrators to alumni. For instance, when he visited Faculties, he met separately with senior administrators, professors and associate professors, and assistant professors. "I wanted to hear what the young professors had to say without any senior professors around," he said. "Through these different meetings I can get a pulse, like in Chinese medicine, of the health of each Faculty."

His initial impressions have been positive. "The University has a lot of good fundamentals and a lot of potential. There are certain areas where we are very good, and we have a very warm community and extremely smart students. These are important assets," he said.

Turning the pyramid upside down

At the same time, the University faces great challenges. Talent, resources and space are critically needed when the University is competing with other peer institutions, but Professor Zhang is trying through his meetings to also see where small changes, like addressing concerns about campus food and streamlining bureaucratic procedures, can improve people's daily lives. He wants his whole Senior Management Team to similarly drill down and hear what people have to say.

"HKU is a pyramid like any organisation. I'm supposed to be on top of the pyramid, unfortunately, but I would like us to serve the people and essentially put the pyramid upside down. This is the American model. Our hearts and minds should be focussed on serving the people and going into the laboratories and offices and classrooms. If we can listen, we can make people's lives relatively easier," he said.

Professor Zhang has long experience in nurturing others and responding to their needs. He spent 29 years in the US where, among other things, he was director of two major

“ The University has a lot of good fundamentals and a lot of potential. There are certain areas where we are very good, and we have a very warm community and extremely smart students. These are important assets. ”

Professor Xiang Zhang

organisations, the Nano-scale Science and Engineering Center at the University of California, Berkeley (where he was Ernest S Kuh Endowed Chair Professor before coming to HKU) and the Materials Sciences Division at Lawrence Berkeley National Laboratory.

He has also steered more than 40 PhD students and is keen to sing their praises. "Many of them are professors and my third generation of students are coming up. I may not be better than some of them," he modestly claimed, citing an example of former students who have invented a material that can cool a room without electricity.

Staying at the frontier

Nonetheless, it is difficult to imagine how they can best their mentor. Professor Zhang has had a skyrocketing career, propelling from Nanjing University in his hometown to graduate studies in the US in 1989 at the University of Minnesota and Berkeley, to full professorship in less than seven years.

As a physicist turned materials scientist, his most famous achievement has been developing negative refraction by applying a material that can bend light waves around an object. In 2008 he used the finding to develop an 'invisibility cloak' that was named one of the Top 10

Scientific Discoveries of the Year by *Time* magazine, and he has been working on a super microscope that would make things that currently cannot be seen by microscopes visible. He has earned numerous honours for his work, most recently the 2017 A C Eringen Medal from the Society of Engineering Science.

While the research is exciting, Professor Zhang says the demands of leading HKU will be the sole focus of his attention for the time being, although he leaves the door open to combining that with research in future.

"I came to HKU because I think the position is interesting and challenging and that we can have big impact given our strengths and history and location. It makes sense to try to build HKU into a university with the standing of Cambridge or Oxford or Harvard or Berkeley, but it will take time. My priority is on recruiting the best people we can from around the world," he said.

"Once I am better settled in, I hope I can spend a small fraction of time in research to keep myself at the frontier of scholarship. It will give me a sense of where to hire best people and what direction the University should head in." ■



President and Vice-Chancellor Professor Xiang Zhang welcoming new students at this year's inauguration ceremony attended by over 1,300 students.



Professor Xiang Zhang was awarded the 2017 A C Eringen Medal from the Society of Engineering Science in recognition of his contribution in micro-nano scale engineering for microelectronics and photonics.



AN ENGINEER AHEAD OF HIS TIME

The new Dean of Engineering, Professor Christopher Chao, has long been an advocate of reaching out and crossing boundaries, making him a perfect fit for today's HKU.

When Professor Christopher Chao, son of a school maintenance assistant and homemaker, was admitted to study engineering at the University in 1985, it was a major event for his family. He was the first member to enter university at a time when only a few per cent of school leavers got a place, and when social and political uncertainty made a portable engineering degree highly desirable. But even with that achievement, he kept his mind open to something more. As it turned out, he was decades ahead of his time.

Professor Chao enjoyed reading and writing as a youth, which were mostly not part of a curriculum that focussed exclusively on maths and sciences. "I worked very hard to go to college but I also have a genuine interest in learning, so I read a lot of books – George Orwell, Stephen King, Bertrand Russell, books like that. I wanted to upgrade myself and pick up knowledge," he said.

He was also keen to venture to new places. After graduating in 1988, he worked for two



Professor Christopher Chao (sixth from right in the first row) was joined by President and Vice-Chancellor Professor Xiang Zhang (centre in the first row), Provost and Deputy Vice-Chancellor Professor Paul Tam (sixth from left in the first row) and Dean of Student Affairs Dr Eugenie Leung (fifth from left in the first row) to meet new students at the Faculty's Inauguration Ceremony for New Students 2018–2019.

“ We want to train engineers who not only can solve technical problems but are well rounded and can communicate with stakeholders from different disciplines. ”

Professor Christopher Chao

years at Swire Group's industrial division before applying to do a PhD at the University of California, Berkeley. Few of his colleagues were interested in studying in the United States at the time because it was a longer PhD programme than in Commonwealth countries, but it suited him just fine. "I wanted to be independent and live away from my family and I wanted to experience something new," he said, and he drove up and down the country on his own to get a firsthand look.

He also tried something new in his PhD by focussing on combustion and energy engineering. "This is a cross-disciplinary area that includes chemical engineering, physics and other areas like that in addition to mechanical engineering. And when you talk about energy, it also relates to climate change and environmental protection, so I built up an interest in these topics, too," he said.

A warning fortunately unheeded

Crossing disciplinary and physical boundaries was not the only way that he pushed the envelope. When he joined Hong Kong University of Science and Technology (HKUST) in 1997, he became a proponent of building ties with industry and encouraging students to start their own companies, at a time when it was unfashionable. (He tried HKU, too, but

there was no opening then for his kind of research.)

"My head of department warned me at the time to focus more on my publications because I might not get tenure. I was a bit nervous, but I decided to keep doing what I was interested in. Later I found society also changed from focussing on purely academic research – which is still important – to nowadays encouraging technology transfer and start-ups," he said, adding: "I'm a very lucky guy because I've been able to do what I'm interested in."

His career never suffered from this approach. He was head of mechanical and aerospace engineering at HKUST before taking up his new post at HKU in the spring and he recently was awarded a HK\$7 million Collaborative Research Fund grant to develop advanced cooling technology to make buildings more energy-efficient. And as the new Dean of Engineering at HKU, he is fulfilling a wish to be a scholar at his *alma mater*. "It's good timing for me to try out something new. I think it will be a more exciting platform for me to look after five different departments rather than one department," he said.

New horizons

Professor Chao's immediate tasks include helping smooth the rollout of three new

Bachelor of Arts and Sciences (BASc) degrees. This is a new initiative by the University to promote interdisciplinary study and Engineering is joining forces with various Faculties to offer BASCs in FinTech, artificial intelligence and design.

He is also keen to see students be creative and develop their ideas into prototypes and even start-ups. The new Tam Wing Fan Innovation Wing, funded by a HK\$100 million donation from Mr and Mrs Tam, will open in 2020. In the meantime, students can experiment in the DreamLab in Haking Wong Building and are being encouraged to pursue interdisciplinary projects. "We want to train engineers who not only can solve technical problems but are well rounded and can communicate with stakeholders from different disciplines," he said.

Professor Chao also wants the Faculty's departments to set their sights high when recruiting new talent and bring in top-flight people of diverse backgrounds – a necessity for staying competitive, even with his former employer HKUST. "This will be good for Hong Kong as a whole because when we compete in a friendly way, the whole standard of engineering in Hong Kong will go up," he said. ■



Professor Christopher Chao (centre) with students at the Engin' Nite at Loke Yew Hall, HKU.



Professor Christopher Chao (sixth from left) with the donor of the Tam Wing Fan Innovation Wing, Mrs May Tam and her team, including Professor T H Tse, Mr Edward Ho and Mr Heman Hsuan and colleagues of the project team.



FINAL CHAPTER FOR EILEEN CHANG

Eileen Chang's final novel, *Little Reunions*, has been translated into English two decades after her death. The work covers her experiences at HKU before and after Japan invaded the city.

The book launch for the newly translated novel was hailed as 'Eileen Chang's triumphant return to HKU' – a slight exaggeration perhaps, but since half the book is about her time as a student at the University it was not an inappropriate claim.

One of the translators, Australian Mr Martin Merz talked about the responsibility of bringing the final work of one of HKU's most acclaimed

students to English-speaking audiences. Translating *Little Reunions* took about a year, but before that process could even begin Mr Merz spent an initial 12 months doing preliminary research.

"Because the book is autobiographical, and because she was writing in the 1970s about things that happened from the 1930s and 1940s I needed to become immersed in the

background of events she described," he said. "By the time she wrote the book Chang was in her mid-50s, working in Los Angeles and was cut off from China, so relying on her memories only."

He also had to work out who is who in the book. "We created a bilingual character list for our own reference as we progressed and in the end we included it at the end of the novel.



Martin Merz (second from right) at the book talk titled 'Little Reunions: Eileen Chang's triumphant return to HKU' where Ilaria Maria Sala (first from right) was the moderator.



The two translators of Little Reunions – Jane Weizhen Pan (right) and Martin Merz (left).



“It’s not an uplifting novel, but it is a great story. Chang is looking back at her seriously dysfunctional family and it’s often harrowing.”

Mr Martin Merz

There are over one hundred characters. In addition to calling herself Julie in the book – Chang is also writing about people familiar to readers of her earlier works *Lust, Caution, The Fall of the Pagoda* and *The Book of Change*.”

There is her mother, called Rachel here, long divorced from Julie’s father who – like Chang’s real father – is an opium addict, as well a complicated cast of relatives who crowd her life. Forced to return to Shanghai by the Japanese invasion of Hong Kong Julie falls passionately in love with the magnetic Chih-yung, a traitor who collaborates with the Japanese puppet regime. Like Julie’s relationship with her mother, her marriage to Chih-yung is marked by long periods apart interrupted occasionally by unexpected little reunions.

The author’s real-life husband Hu Lancheng was a Japanese collaborator during the Sino-Japanese war, who served briefly in the propaganda ministry of the puppet government in China headed by Wang Jingwei. “He was an awful man and was regarded as a traitor,” said Mr Merz. “But she loved him and after the war helped him escape to Japan.”

Such politically sensitive aspects of the book are the reasons it was not published when it was written in the 1970s. “Chiang Kai-shek had just died,” explained Mr Merz, “and her by then former husband, Hu Lancheng, was a politically sensitive figure. At the time she had long discussions with her agents [the parents of her current literary executor Roland Soong] about whether to rewrite the novel extensively to remove all sensitive material.

“Burn it!”

“She even suggested at one stage that they simply burn the manuscript,” added Mr Merz. “Because of this, some people have questioned whether it should have been published after her death at all, but I think it should. Burning was only one of many emotions she expressed –

at other times she had high hopes for its success in an English translation.”

Finally published in Hong Kong in 2009, *Little Reunions* became an instant bestseller and then in China and Taiwan, and now the English translation is being well received around the world.

Famously, Chang was an undergraduate at HKU, and the first part of the book covers this period in Hong Kong, including the first bombing of the city taking place just as she is about to start her finals. She talks about places familiar to local readers, including the original Repulse Bay Hotel and the Catholic Cemetery in Happy Valley and of taking walks in the hills surrounding HKU and looking out at all the little islands in the South China Sea.

Honest version

The story parallels her own life closely, in all its disarray. “It’s not an uplifting novel, but it is a great story,” said Mr Merz. “She is looking back at her seriously dysfunctional family and it’s often harrowing. Readers will recognise the story from her other works – she is using the medium of the novel to tell and retell her own story. But I think this is the most honest version and the one that most closely resembles her actual life.”

Little Reunions is the third book that Mr Merz has translated. His first major book translation was *English: A Novel*, a coming-of-age story by Wang Gang about a boy living in Xinjiang during the Cultural Revolution. Mr Merz studied Mandarin at Melbourne University in the 1970s, before working in Taiwan and Mainland China for 30 years. He also did a Master of Arts in Applied Translation at the Open University of Hong Kong with Professor John Minford, an expert in literary translation.

When Mr Merz received the request to translate *Little Reunions*, he viewed it as “an exciting opportunity given her prominence in

modern Chinese literature.” He worked on the book together with Jane Weizhen Pan whom he describes as his partner in crime in translation. She grew up in China, and is currently doing a PhD in translation research.

“It’s good to translate as a team – it can be lonely work,” he said, “and it is entirely possible for a non-native speaker such as myself to get one word wrong and go off on a disastrous tangent. Jane ensures this does not happen.”

Summing up the experience, Mr Merz said: “This autobiographical novel proved to be both challenging and rewarding, providing a vivid entrée into a world that has long departed while offering insights into the human condition.” ■



Little Reunions
Author: Eileen Chang
(Translated by Jane Weizhen Pan and Martin Merz)
Publisher: New York Review Books



QUEEN AND EMPIRE

British Colonialism and the Criminalization of Homosexuality examines whether colonial rule is responsible in many parts of the world for the historical, and continuing, criminalisation of same-sex relations.

During a meeting of Commonwealth heads of government this summer, British Prime Minister Theresa May urged Commonwealth nations to reform any anti-gay legislation still held over from colonial rule. She did not go so far as to apologise for the laws but said: "As the United Kingdom's prime minister, I deeply regret both the fact that such laws were introduced and the legacy of discrimination, violence and death that persists today."

The legislation to which she refers is the subject of *British Colonialism and the Criminalization of Homosexuality*, written by Dr Enze Han, from the Department of Politics and Public Administration, and Dr Joseph O'Mahoney, a lecturer at the University of Reading.

It assesses historical and current evidence from countries around the world and looks at the ways the British empire created laws criminalising homosexuality in its colonies. The book has case studies of common law and criminal codes including the Indian Penal Code of 1860 and the Queensland Criminal Code of 1899, and it looks at the politics and legal status of homosexuality across the globe today, asking whether British imperialism 'poisoned' societies against homosexuality.

The book came about because of widespread interest in an article Dr Han and Dr O'Mahoney published in the *Cambridge Review of International Affairs* in 2014 about a political science study on the relationship between colonial laws and contemporary laws on the decriminalisation of homosexuality.

Attracting attention

"It attracted a lot of attention, including from the *Washington Post*," said Dr Han, who was a senior lecturer at SOAS University of London, at the time. "They asked us to write a piece for the Monkey Cage blog, a platform the paper describes as being for political scientists to 'make some sense of the circus that is politics'. [The title comes from H L Mencken's quote, "Democracy is the art of running the circus from the monkey cage."]

"After that we got many responses discussing the subject, particularly from journalists and LGBT [lesbian, gay, bisexual and transgender] activists working in Africa. It also attracted the interest of Alexandra McGregor, who is editor



“ France had a large empire too, but anti-homosexual laws were abolished in the Napoleon Penal Code of 1804, while Britain, particularly during the ultra-conservative Victorian era, strengthened them. The law took on a life of its own in some countries. ”

Dr Enze Han

of the 'Sexuality and Gender Studies' series at Routledge and who asked them to expand the articles into a short book.

In addition, they wrote a piece for The Conversation, a blog for academics and researchers, entitled 'How Britain's colonial legacy still affects LGBT politics around the world'. It got 15,000 hits.

In that blog they mention May's speech and the interesting events that followed it. Dr Han said: "Her words came in the aftermath of a court decision by Trinidad and Tobago to decriminalise homosexuality. The drama came later, when, during an interview with the BBC, Trinidad's Anglican Bishop Vince Gill denounced the ruling and called May's comments 'neo-colonialism'. He missed the irony that it was British colonialism which outlawed homosexuality in the first place.

"As the book indicates, this is not the only instance of a country flipping the Western part and claiming that being anti-gay is part of their own culture and tradition and not down to the colonial influence."

The two scholars' interest in the subject dates back to 2012, when they were examining an ongoing study by the International Lesbian, Gay, Bisexual, Trans and Intersex Association (ILGA) tracking the legal situation for homosexuals in different countries. "We were fascinated as to why some countries have laws against homosexuality and some do not," said Dr Han. "We were also interested by the diversity of the punishments – from the death penalty in some countries to a fine in others – and in what was actually considered illegal."

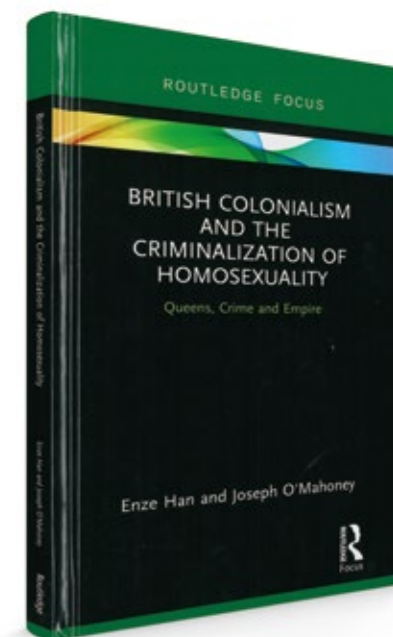
"Obviously Britain was not the only colonial power," he continued. "France had a large empire too, but anti-homosexual laws were abolished in the Napoleon Penal Code of 1804, while Britain, particularly during the ultra-conservative Victorian era, strengthened them. The law took on a life of its own in some countries."

Of the 71 countries that still criminalise gay sex today, at least 37 of them were once subject to British colonialism. The book covers all of them and looks at the different ways the law was interpreted. "On the one hand we found the longevity of the institution," said Dr Han, "but on the other we found that even in the strictest days of the colonies, the governor had discretion over the interpretation of the law and often would not enforce it.

"Over the past few decades there has been a trend to remove these laws, with the most recent former colonies to do so being Belize, Seychelles and Fiji. India, the jewel in the colonial crown, only decriminalised homosexuality in September, 2018."

In Hong Kong homosexuality was against the law until 1990, 23 years after England decriminalised it.

Asked why the book's subject has aroused such interest, Dr Han said: "The topic surprises most people – they didn't realise there was a colonial aspect to homosexuality laws. In the UK, domestic issues such as Brexit have raised the spectre of empire and how it is remembered. It is a complex and political story." ■



British Colonialism and the Criminalization of Homosexuality
Authors: Enze Han and Joseph O'Mahoney
Publisher: Routledge



CITY LIMITS

A new book argues that ‘gross mismanagement’ by Hong Kong’s four chief executives has caused unnecessary hardship and left people badly in need.

The book, entitled *A City Mismanaged: Hong Kong’s Struggle for Survival*, is written by Leo Goodstadt, a leading economist, HKU Honorary University Fellow and chief policy adviser to Hong Kong’s colonial government from 1989 to 1997.

He puts the case that Hong Kong’s post-1997 leaders have emulated private sector models in public administration and imposed overly tight control on public services. Describing the problem as ‘gross mismanagement’, he emphasised that it has not been caused by Hong Kong’s political system but by what he terms ‘the incompetent performance of the individual power holders’.

Mr Goodstadt, who has lived in Hong Kong since 1962, felt driven to write this book when he was completing another book in 2013

investigating poverty in Hong Kong. He was shocked by how seriously the social and health services had deteriorated and by the number of families left living in need.

“Even more alarming was the extensive evidence I collected from official sources that this grim situation was avoidable,” said Mr Goodstadt. “It had been created and aggravated by those in high office: by chief executives – Tung Chee-wah, Donald Tsang, CY Leung and the present incumbent Carrie Lam – and their ministers.”

He felt that the book he was writing then, *Poverty in the Midst of Affluence*, was only part of the story. “Although over 80 per cent of the population were classified as living above the official poverty line, large numbers of them were facing serious threats to their standards

of living because of poor performance by the government,” he said.

Extensive failure

“There was extensive failure by those in power to implement laws and regulations and to provide the money to tackle the serious threats to the well-being of all Hong Kong social classes except the truly rich.

“The dangers to the health and safety of those living in private housing were particularly alarming. By 2011, the Urban Renewal Authority had reported 110,000 families in the private sector were already living in ‘homes that are neither healthy nor safe’. Life was made ‘miserable by the dirt, decay and lack of amenities that the rest of the community takes for granted’.

“There was ‘the risk from the disease and dangers’ in 4,000 buildings erected 50 or more years earlier. Typically, three or more families were packed into the average living unit of around 500 square feet. The common areas were filthy and prone to flooding, and there was a constant threat of fires caused by defective electrical wiring and fittings.”

He had also collected a lot of data on other threats to the average family: in particular to the post-secondary education of their children.

In light of all this, he decided to broaden his scope of study, and *A City Mismanaged: Hong Kong’s Struggle for Survival* is the result. Mr Goodstadt believes that where the chief executives have gone wrong is in their belief that the business world and profit motive provide the formulas for success in managing the public services.

“In reality, this ‘free market’ doctrine cannot be trusted to work honestly and effectively by itself,” he argued. “That is why we have tough controls on banking and the stock market to prevent fraud and misuse of depositors’ funds and shareholders’ investments. The medical professions have to be tightly regulated, as do lawyers and accountants. Thus, it makes no sense to believe that market competition can be relied on to solve housing shortages or to guarantee adequate education or public safety.”

He blames the chief executives for refusing to recognise the limitations of the free market

approach, and accuses them of ignoring the costs to the community in their failure to provide adequate funds and staffing to ensure that laws are fully enforced and proactive policies implemented. Given that Hong Kong’s public finances have been abundant throughout the period in question, he feels there is no valid excuse for budget austerity.”

Determined population

On the plus side, he believes that the situation can be rectified, given the city’s political maturity and the determination and strength of its population.

Mr Goodstadt said: “This is a city where, despite the years of government-induced economic recession, average labour productivity continued to improve each year at a faster rate than in Singapore, the United States and other advanced economies. Industrial disputes are among the fewest in the world. Crime rates have fallen.

“Hong Kong must be close to being the world’s most civilised city – even under very unfavourable circumstances. It sometimes seems that the more incompetent the government shows itself, the better the performance of Hong Kong people.”

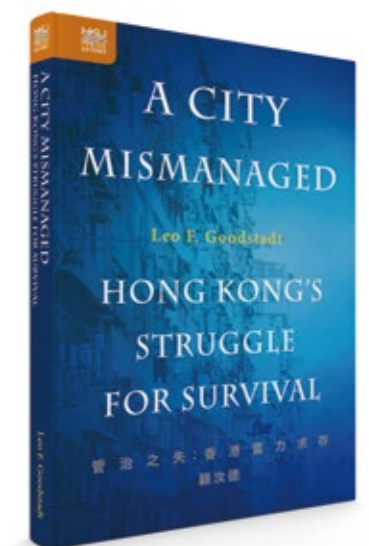
He feels that given Hong Kong’s political maturity and social discipline, miracles could be worked if the governing team “took courage, trusted the public, accepted the need for action”.

He concluded: “In the meantime, however, we continue to gaze in wonder at the MTR Corporation as the media report, day after day, more alleged breaches of contract, inadequate supervision of construction work, and the lack of emergency measures to take control of a mounting scandal almost unparalleled in Hong Kong’s history.” ■



“ Hong Kong must be close to being the world’s most civilised city – even under very unfavourable circumstances. It sometimes seems that the more incompetent the government shows itself, the better the performance of Hong Kong people. ”

Mr Leo Goodstadt



A City Mismanaged: Hong Kong’s Struggle for Survival
Author: Leo F Goodstadt
Publisher: Hong Kong University Press



HIGH NOTES

The Music Department and Cultural Management Office are fulfilling a far-reaching aim to promote innovative, intelligent and informative cultural events to audiences both at the University and across Hong Kong.



“ We are in the unique position of being able to offer events such as *The Immortal 32* because we have a great venue, a fantastic team, intellectual academic support and great students, plus an engaged audience. ”

Ms Sharon Lu

It would be an ambitious undertaking: One pianist to play all of Beethoven’s 32 piano sonatas in chronological order, in eight shows performed over two weekends. Titled *The Immortal 32*, the project would also prove a big success, its scale indicative of the far-reaching ambition of the University’s MUSE [My University Spotlight Encounters] programme, a concept launched five years ago to promote inspiring cultural events at affordable prices.

“MUSE has been a big success – it is fulfilling the dreams we had for it,” said Ms Sharon Lu, Programme Director of the Cultural Management Office (CMO), which is working with the Music Department to offer framed artistic experiences with intellectual engagement. “We are in the unique position of being able to offer events such as *The Immortal 32* because we have a great venue, a fantastic team, intellectual academic support and great students, plus an engaged audience.”

Divided into eight programmes of four sonatas each, the cycle was demanding for pianist and audience alike. The first four were performed on the Friday evening of the first weekend, with another four on Saturday, then two programmes of four each on the Sunday. That was repeated the next weekend.

Renowned Russian pianist Konstantin Lifschitz took on the challenge of playing all 32 from

memory, which was difficult technically, as well as emotionally and mentally. It was also a tough physical test.

For audiences it was a rare chance to hear the sonatas, in order and thereby experience Beethoven’s emotional and musical journey as a composer, from when he was a young man through to his senior years.

Ms Lu, who is a classical pianist herself, said: “You could hear how his sonatas developed. It was amazing to see Beethoven’s creative process laid out – how he struggled and emerged from those struggles, how he developed. Having listened to the whole cycle, I know I will never hear his sonatas in the same way I used to. This gave them logic and a context.”

Supporting events included three ‘Music in Words’ talks to give audiences background and context. The first was conducted in Putonghua by renowned Taiwanese writer Mr Yang Zhao; the second, in Cantonese, featured local pianist Ms Nancy Loo and the third, in English, was a conversation between Konstantin Lifschitz and Dr Giorgio Biancorosso, Associate Professor at the Music Department. There was also a one-hour online video lecture by Chairperson and Professor of Music Daniel Chua, Mr and Mrs Hung Hing-Ying Professor in the Arts, with Lifschitz at the piano, and three shorter videos focussing on Beethoven’s life.

“As Lifschitz reached the last few bars of the final sonata, it was an emotional moment,” said Ms Lu. “He had done the musical equivalent of a marathon and he was just crossing the line. Deservedly he received a very long, standing ovation.”

Accessible and understandable

“One of the aims of MUSE is to make events accessible and understandable to everyone. We were gratified to see audiences of all ages – families, friends, piano teachers with their students, and many of them bought the complete package, enabling them to take the whole journey with the composer and with the pianist.”

HKU students were also heavily involved in the organisation of the event, with undergraduates acting as interns and ushers. The house programme was written by Music Department graduate Sheryl Chow, who is currently doing her PhD in Musicology at Princeton.

The dedication to offering in-depth perspectives on arts and culture is ongoing. In September, 2018, the CMO staged Johann Sebastian Bach’s *The Well-Tempered Clavier (WTC) Book I and II* played by Angela Hewitt. Next year, celebrated Japanese pianist Nobuyuki Tsujii will be accompanied by Orpheus Chamber Orchestra.

Blind from birth Tsujii will also share his unique methods for learning music and performing with an orchestra. There are also big plans for 2020, the 250th anniversary of Beethoven’s birth, including a conference, a string quartet marathon, and a return visit by Lifschitz.

example, French harpsichord player Jean Rondeau will be coming to HKU to participate in and facilitate a number of events such as solo recitals, a jazz improvisation and a master class. He will also be paired with a *guzheng* player while he is here to exchange musical ideas. ■

Another innovation is that musicians will be invited for longer residencies in future. For



The Messiah for all

Another highlight of joint efforts by the Cultural Management Office and the Music Department to reach a wider audience includes the ‘Messiah Sing-Along’, introduced last Christmas and intended to be an annual event. Handel’s *Messiah*, and in particular the *Hallelujah Chorus*, is one of the best-known choral works in the Western canon. The ‘Messiah Sing-Along’ invited HKU students, performers and the general public – along with the event’s Knowledge Exchange partner SingFest – to come together for a series of rehearsals and workshops culminating in a community sing-along concert at the University’s Grand Hall. The event was both festive and fun, and an even bigger turnout is anticipated this December.



EVERY PICTURE IS A STORY

An exhibition of the works of Swiss photojournalist Walter Bosshard offered a fascinating insight into life in China in the 1930s.

From peasant farmers through Shanghai society ladies to Mao as a young man, Swiss adventurer and photojournalist Walter Bosshard (1892–1975) photographed the ordinary people and extraordinary people of China in the 1930s. The exhibition *Bosshard in China: Documenting Social Change in the 1930s* at the University Museum and Art Gallery (UMAG), comprised 120 of those images which capture what was a tumultuous time with a profound clarity.

“Bosshard was a photojournalist of a kind that no longer exists,” said UMAG Director Dr Florian Knothe. “He was given the extraordinary assignment of living in China for nearly a decade from 1931, and more

permanently from 1933 to 1939, and photographing whatever he wanted. His images basically introduced China to Europeans who had no idea about the people of China, and he shone a light on every aspect of life.

“He was very deliberately neutral and acknowledged to be so,” said Dr Knothe. “He had no news agenda, and so he presented his images and words very fairly, never taking sides, simply showing what was.”

It is clear from the images and his text, that Bosshard was an extraordinary man. Dr Knothe describes him as an adventurer. “He was good-looking, gregarious, and a very organised traveller. He spoke Putonghua

and made many friends in China, including the likes of Chiang Kai-shek and Madame Chiang Kai-shek, Soong Mei-ling, whom he adored. He also became close to Mao and talked to him on numerous occasions.”

Friends with Mao

One of the most outstanding pictures in the exhibition is Bosshard’s portrait of Mao, taken in Yan’an in 1938 where he was based after the Long March and where he united his party ready to do battle with Chiang Kai-shek’s Nationalist Party. “This is not one of the ‘official’ pictures of Mao,” said Dr Knothe. “It is unusual to see the future leader in scruffy attire with his hair disheveled – not the usual



“ Bosshard’s images basically introduced China to Europeans who had no idea about the people of China, and he shone a light on every aspect of life. ”

Dr Florian Knothe

slicked back portraits with which the world is familiar. Bosshard visited Mao regularly and wrote a long article on him, and this portrait reflects that familiarity with the subject.”

It is one of Bosshard’s skills that his photographs make the viewer want to have the same familiarity. The saying is that every picture tells a story, and nowhere is that more true than here where the viewer yearns to know the real story behind the tableaux image. A particularly striking scene has a young Chinese man, clearly injured, sitting on the running board of an expensive car, which bears a swastika and appears to be a diplomatic or official vehicle. Behind the car, are two westerners, one of them particularly stylishly dressed in spats and pleated white trousers. They are standing in front of a large wooden gate.

Dr Knothe explained that this picture was taken as an example of Westerners getting involved to help injured Chinese wounded when fighting the Japanese invaders in 1938.

Another picture shows a well-dressed young man, clutching a wad of bank notes and grinning broadly. From the way he is brandishing the cash, the assumption is he won it – but we will never know. Then there’s the shot of poor Chinese workers walking down the street in the French Concession 1938, while behind them a cinema billboard advertises ‘Shirley Temple in Heidi’. It is an incongruous juxtaposition.

In addition there are photographs of everyday life at the time for rich and poor, extensive scenes of villagers in remote areas of Mongolia and a section devoted to the Chinese preparing for war with Japan – including a fascinating sequence of orphans getting ready to be evacuated – and of Japanese soldiers entering the city of Hankou.

As well as still photographs, the exhibition included five short films shot by Bosshard, chosen because they are closely related to the photos. Some characters appear both in the films and the stills, which lends them a further

familiarity. The black and white films are run with no sound and show scenes ranging from soldiers in formation, through Mongolian wrestlers, to street scenes and Mao speaking.

The exhibition showcased a collaboration with the National Archive for Swiss Foundation of Photography, where some 60,000 of Bosshard’s negatives are stored, and its display, and the book that went with it, were supported by the Swiss Consulate in Hong Kong and the Hong Kong University Museum Society.

It also marks the Gallery’s initial collaboration with HKU’s Journalism and Media Studies Centre. The museum staff used the exhibition as a tool to talk to students about journalism, in particular photojournalism as it was back in the 1930s compared to how it is now.

For Dr Knothe, it was important to show Bosshard’s pictures as he feels they have not received the recognition they deserve. “I cannot understand why Bosshard is not more famous in Europe and across the world. I think he compares with Hungarian war photographer Robert Capa.”

There are certainly similarities between the two. Capa famously said: “If your photographs are not good enough, you are not close enough.” From the evidence of this exhibition, it appears that Bosshard would agree. Without the benefits of high definition super zoom lenses his shots are clearly very close to the action – whether it is Japanese soldiers marching into Hankou or a Chinese gentlewoman in a rickshaw, he takes the viewer right to the centre of things. His coverage is comprehensive: he captures everyday life and ordinary people, as well as extraordinary people on the verge of doing extraordinary things. ■



(From left) UMAG Curator and Publisher Christopher Mattison, Vice-Chairman of the HKU Museum Society Anna Ann Yeung, Co-Founder and Co-Director of Lianzhou Museum of Photography Duan Yuting, Consul General of Switzerland in Hong Kong and Macau Reto Renggli, Director and Curator of the Swiss Foundation of Photography Peter Pfrunder and UMAG Director Dr Florian Knothe.

The University of Hong Kong Bulletin

Published by the University of Hong Kong

The *Bulletin* magazine reports on activities, events and research initiated by members of the University. It aims to keep the local and international communities informed of new breakthroughs and achievements in all of our faculties and disciplines.

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Design and production: oneZEBRA Limited

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With special thanks to staff and students who kindly contributed their time and their photographs to the *Bulletin*. We welcome contributions of content for publication. Items should include the author's name and University contact details. Please direct contributions, comments or suggestions to the Communications and Public Affairs Office at bulletin@hku.hk for consideration.

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