THE INTRICATE IMPACTS OF DATA
In a data-saturated world, user-generated content can be a calamity for both public and private sectors. If corporations fare well, they could gain traction and widespread support. But if they fare poorly, they might embroil themselves in public relations crises — big or small. Before traumatic episodes take a toll on enterprises or are turned into irredeemably bad, soliciting advice from such a cyber smart expert as CISC Ltd, our HKU spin-off, is now a strengthened priority for many.

Dr. K.P. Chow, Chairman and Co-Founder of CISC Ltd, calls on the expertise of cyber intelligence and security to help cap the grievous yet avoidable damages at consequential levels. One of CISC’s flagship products, Intelligence as a Service (IaaS) Platform, is a dynamic cloud-based tool for collecting an avalanche of public data from the internet, including but not limited to social media platforms, auction websites and virtual discussion forums, and renders them in intelligence through its analyser and analytics modules. Such intelligence will help convey meaningful messages to clients and enable them to formulate strategic and informed decisions. CISC also thinks deeply about data — data creation, data analysis and interpretation — in ways that are not only technical but also social. The team explores broader questions such as “How do individual users intersect with the way those data are created?” To answer this, CISC provides innovative user profiling modules for clients to perform a full analysis on their target entities in the cyberspace.

CISC’s another signature innovation, SHIELD, is a forensic-aware cyberattack defence solution. It is designed to protect clients against DDoS attacks. SHIELD, with the application of machine learning, has an exclusive capability of profiling cyberattacks and planning tracebacks. Some of its key features include an easy plug-and-play installation, a multilevel bloom filter, and the provision of real-time blacklists and whitelists. All these features lead to effective privacy preservation, accurate cyberattack intelligence analytics as well as innovative cyber intelligence solutions. Particularly well-versed in cybercrime, computer forensics and critical infrastructure protection, Dr. Chow also offers tailor-made consultation on well-defined security assessments and protection tests to clients across industries.

Dr. Chow was gratified when the team’s ideas caught on. They were even more gratified when the ideas have come to fruition. Without the relentless support of the Technology Transfer Office (TTO), Dr. Chow could imagine that the fine threads of research and commercialisation can often slip under the radar. TTO helped CISC identify credible sources of funds and shore up financing. The spin-off was an awardee of TSSSU@HKU for three consecutive years (2016-2019 triennium) and of the Cyberport Creative Micro Fund (CCMF) Programme. Dr. Chow added that the funds have allowed them to cast their undivided attention to the development of their inventions which further unlock the secrets of how data shape and are shaped by the nuances of the society.

Dr Chow, Associate Professor of the Department of Computer Science at the Faculty of Engineering, HKU, has over 30 years of solid research experience in computer forensics.
News and Media

In October 2020, local media unfolded some successful stories of our spin-off companies. On 8 October, The Hong Kong Economic Journal reported on CISC’s critical data analytics tool, IaaS, and its wide applications in intellectual property protection, cybercrime investigations as well as business intelligence analysis. On 14 and 23 October, High Performance Solution Limited was featured in Ming Pao and Sing Tao Daily, respectively. They highlighted the spin-off’s invention, the Direct Thermal Charging Cell (DTCC) and how DTCC could potentially mitigate effects brought by greenhouse gases. On 14 October, Unwire.pro presented Lifespans’ Bone Simulator and its ability to improve the quality of orthopaedic implants and reduce surgical complications in elderly patients.

On 27 October, HK01 published an in-depth interview with Dr. Yiwu He, Director of TTO and Senior Advisor to the President. Realising the fact that the social need for flu vaccines is long overdue, Dr. He commented that the way to resolve vaccine shortages shall begin anew in order to meet the unprecedented demand from the general public. He raised the possibility of developing and manufacturing vaccines in Hong Kong and in turn reducing dependency on external supplies. While this initiative seemed to be an upstream battle, Dr. He and his team expressed hope that local vaccine production would be made possible in the near future.

Remarkable Efforts

Total engagements and handling cases by our three service arms – the business development (BD), intellectual property management (IPM) and the legal team – soared 35% in October 2020, a year-on-year spurt that indicated TTO’s success of leading through an era of exponential, multi-dimensional and unpredictable change.

The technology commercialisation and industry engagement, entrepreneurship and incubation support as well as marketing outreaches by the BD team increased for a second straight month in October 2020, totaling 78, up 16% from a year earlier. The IPM team recorded a sharp increase in the number of handling new IDFs, office action matters, evaluation reports, and filings from 31% to 72. The legal team’s new cases rose 58% in October from 66 to 104 from a year earlier, marking a significant milestone in managing the growing demand from our research community at HKU.

About Versitech

Versitech Limited is the commercial arm of HKU. Versitech negotiates, executes and manages commercial business contracts and agreements on behalf of the University.

ACT NOW!
How to Apply: 4 Phases for Research Projects

**Phase 1: Initial project negotiation**
1. PI will negotiate with their collaborator(s) and confirm a project proposal which includes the scope, budget and duration of the project.

2. PI will negotiate with their collaborator(s) and prepare a draft agreement (Agreement templates are available at the website of the Research Services (RS): http://www.rss.hku.hk/contracts/contractresearch/templates.).

**Phase 2: Endorsement from department/faculty**
3. PI will submit the project proposal, the draft agreement, and the information form/grant application form to their department/faculty to seek an approval (The information form for research/consultancy agreements is available at: http://intraweb.hku.hk/local/rss/tto/researchor-consultancy-agreements-form.doc).

4. After obtaining the approval, PI will submit the project proposal, the draft agreement, and the information form/grant application form to the Research Service (RS).

**Phase 3: Financial legal/IP review**
5. The RS will distribute the project proposal and the draft agreement to the Finance and Enterprises Office (FEO) for financial review and to the Technology Transfer Office (TTO) for legal review.

6. If there is any financial/legal issue, the FEO/TTO will inform PI through the RS. PI will negotiate with their collaborator(s) on the financial/legal issue until it is settled.

**Phase 4: Signature and document archiving**
7. After consolidating the settled project proposal and the agreement, the RS will proceed to the signature process.

8. After duly performing the signature process, the RS will assign the RCGAS number(s) for opening the project account(s) and archiving all the documents.

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**Policy Stipulation**

The latest policy stipulates that the net receipts arising from the exploitation of an Invention are shared among the University, the relevant faculty/department and the inventor(s) in the ratio of 1/3 : 1/3 : 1/3. It aims to encourage the researchers at HKU not only to excel in academic performance but also to apply their technology for the benefits of mankind with an impressive reward.

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**Share Your Success Story**

Do you have a success story you want to share with colleagues and experts in the field? We have made it easy to do, and your story will appear on our issue. Your success story can inspire greatness. Don’t hesitate to send us your story at emily@tto.hku.hk.