

Applying **Ai** in **Business**

Symposium 2020

9 May (Sat)

2:00pm - 5:50pm

香港科技大學風險管理及商業智能學
Risk Management and Business Intelligence

by Zoom

Program Schedule

14:00 - 14:10 **Opening Ceremony - Welcome Speech**
Prof. Kai-Lung HUI
Director, Risk Management and Business Intelligence Program, HKUST

Session 1

14:10 - 14:50 **Be Smarter and Be Quicker to Manage the Risk**
Mr. Jay WANG
Head of Equity Derivatives Market Risk Management, Credit Suisse

14:50 - 15:30 **Mining Business Risks and Opportunities from Media Big Data Using AI & NLP**
Dr. Chao HE
Director, Wisers AI Lab

15:30 - 15:45 **Break**

Session 2

15:45 - 16:25 **Opportunities and Challenges in DeFi**
Prof. James LEI
Senior Director, Hong Kong Applied Science & Technology Research Institute
Adjunct Professor, Department of Mathematics, HKUST

16:25 - 17:05 **The Growing Role of AI in the World of Risk & Compliance**
Mr. David LIU
Managing Director and Head of Asia Pacific, Compliance, Risk & Diligence,
Kroll | Duff & Phelps

17:05 - 17:45 **Panel Discussion: Risk Management in AI World**
Prof. Kai-Lung HUI **Moderator**
Director,
Risk Management and Business Intelligence Program, HKUST

17:45 - 17:50 **Closing Remark**

Supporting Organizations



Speakers



Be Smarter and Be Quicker to Manage the Risk

Mr. Jay WANG

Head of Equity Derivatives Market Risk Management
Credit Suisse

Abstract

The fast growing financial market and complexity nature of risk taken by banks require an technology upgrade. AI technology has been used widely in the bank's risk management practice in various areas such as improving the efficiency of risk monitoring and expanding the capability to detect the risk at early stage. What has been the latest developments and what can be done more?

Biography

Mr. Jay Wang is a Director of Credit Suisse and Head of Equity Derivatives Market Risk for the Asia Pacific Division, based in Hong Kong. Jay held 12 years' experience in market risk field with specialty in equity and hybrids structured products, quantitative modeling and derivatives markets in APAC.

Before he moved to Hong Kong in 2015, he was head of market risk management for Credit Suisse Shanghai Branch where he set up the market risk management team and built the quantitative risk analysis capacity for the regional team.

Jay began his career as financial engineer in Algorithmics and involved in implementing the Basel II requirements for China Construction Bank.

Jay holds a MSC in Financial Mathematics from the University of Warwick.



Mining Business Risks and Opportunities from Media Big Data Using AI & NLP

Dr. Chao HE

Director
Wisers AI Lab

Abstract

Businesses are increasingly faced with risks and uncertainties from outside their normal operational boundaries. Simply relying on management wisdom is not sufficient nor timely when a crisis or opportunity emerges. News and social media contain rich and valuable information, whether they are the topics of macroeconomics, geopolitics, international trades, regulatory news, etc.; or the topics of social issues, disasters, social unrests, etc.; or the topics of industry trends, emerging technologies, company news, etc.; or consumer preferences and opinion specific to a certain brand, product or attributes.

This talk introduces how this information can be identified and discovered dynamically and timely from the cross-media big data by using artificial intelligence (AI) particularly natural language processing (NLP) technologies. By further combining the extracted information with company's own data, applying sentiment analysis and business forecasting models, it can be transformed to policy, society, industry, brand, product, and consumer insights, guiding businesses and investors to make smart decisions on opportunity mining, risk management, investment research, competitive analysis and precision marketing, to maximize return on investment.

Biography

Dr. Chao He is the Founding Director of Wisers AI Lab, a Senior Member of the Institute of Electrical and Electronics Engineers (IEEE), and a Kellogg-HKUST EMBA candidate. He received his Ph.D. degree in artificial neural networks from Beijing Institute of Technology in 2001 before conducting post-doctoral research and lecturing at the University of Alberta in Canada and the University of Paisley in UK from 2001 to 2005, where he jointly invented the RSDE machine learning algorithm.

Between 2005 and 2014, he was a Senior Research Engineer and Lead Researcher at NCR Corporation in UK and HK, where he led the invention and development of the world's first commercialized machine learning banknote validation technology, achieving large-scale global deployment.

In 2014, he joined HK-based Wisers Information Limited and established Wisers AI Lab, dedicated to the development of world-class AI technologies for Chinese natural language processing and analysis, and their applications to the smart marketing and financial services industries. The Lab won No. 1 in NLPCC2018 international competition for its automatic summarization technology and has received around HK\$20 million funding awards from the HKSAR Innovation and Technology Fund since 2016. Dr. He has published ~20 papers in top international journals and conferences and holds 40+ international patents.



Opportunities and Challenges in DeFi

Prof. James LEI

Senior Director

Hong Kong Applied Science & Technology Research Institute

Adjunct Professor

Department of Mathematics, HKUST

Abstract

Decentralized finance, or DeFi, refers to financial services built using decentralized infrastructure, such as blockchains and smart contracts. After the flurry ICOs in 2017, DeFi emerged as king of blockchain 2.0 over Ethereum and was touted as the next big killer app for blockchain in 2019. But will it ever deliver its promise and bring blockchain along with it to the mass market? What are the opportunities and challenges?

Biography

Prof. James Lei is currently a senior director at Hong Kong Applied Science & Technology Research Institute, and an adjunct professor at the Department of Mathematics at HKUST. He has worked at Bell Labs, Lucent Technologies, Panasonic Research, and Chinese University of Hong Kong. He has more than 120 publications in journals, conferences, and patent applications. His research has led to technology startups and won several international recognitions. He obtained Bachelor's degree in Mathematics from Beijing University in 1989, and PhD degree in Electrical Engineering from Brown University in 1997.



The Growing Role of AI in the World of Risk & Compliance

Mr. David LIU

*Managing Director and Head of Asia Pacific
Compliance, Risk & Diligence
Kroll | Duff & Phelps*

Abstract

As financial institutions adopt emerging new technologies to manage risk and compliance, AI is one of the key initiatives at the forefront. What are some of the challenges and opportunities? We will take a look at some areas where AI has an impact including AML/KYC/due diligence.

Biography

Mr. David Liu is the Asia Pacific leader for the Compliance, Risk & Diligence business for Kroll | Duff & Phelps, the leading global advisory and global provider of risk solutions, and also head of the firm's Hong Kong office. David works with financial institutions, corporations, and Fintech firms across the region to advise and manage a wide array of risks related to compliance including anti-money laundering (AML) and anti-bribery & corruption (ABC) regulations. David also supports established and startup companies in navigating the rapidly evolving regulatory landscape surrounding blockchain and cryptocurrencies.

Moderator



Panel Discussion:

Risk Management in AI World

Prof. Kai-Lung HUI

Director

Risk Management and Business Intelligence Program, HKUST

Elman Family Professor of Business

Associate Dean for Research

Deputy Head and Chair Professor

**Information Systems, Business Statistics, and Operations Management,
HKUST**

Biography

Prof. Kai-Lung Hui is Elman Family Professor of Business, Associate Dean for Research and Deputy Head and Chair Professor in the Department of Information Systems, Business Statistics, and Operations Management at the HKUST Business School. His research interests include cybercrime economics and policy, Fintech, privacy, IT policy, and electronic commerce. His research has been published in scholarly journals including American Economic Review: Papers and Proceedings, Information Systems Research, Management Science, MIS Quarterly, and Journal of Management Information Systems, among others. He is currently serving as a Senior Editor for Information Systems Research and an Editorial Board Member for Journal of Management Information Systems, two of the top three information systems journals used in the Financial Times' business school ranking.

Prof. Hui has provided expert advice and consulting services to various government and non-government organizations including the Intellectual Property Department of the HKSAR Government, World Intellectual Property Organization, and Ministry of Law of Singapore. He frequently speaks in conferences and forums on digital piracy, cybersecurity and privacy, Fintech, and technology policy organized by professional organizations in the banking, education, insurance, finance, and IT industries. Prof. Hui is an honorary advisor of the Hong Kong Policy College and a member of the Insurance Authority's Expert Panel on Cybersecurity. He is serving as an advisor for UC.NOW.

Prof. Hui has taught undergraduate, MSc, MBA, EMBA, PhD, and executive courses on cybersecurity and risk management, privacy and information management, Fintech, blockchain and cryptocurrencies, big data analytics, strategic IT management, and competitive business strategy, among others. He obtained his BBA and PhD degrees from the Hong Kong University of Science and Technology.

Organizing Committee

Chairman

Prof. Kai-Lung HUI

Director of Risk Management and Business Intelligence Program

Elman Family Professor of Business

Associate Dean for Research

Deputy Head and Chair Professor of Information Systems, Business Statistics, and Operations Management

Committee Members

Prof. James KWOK

Co-director of Risk Management and Business Intelligence Program

Professor, Department of Computer Science & Engineering

Prof. Kani CHEN

Co-director of Risk Management and Business Intelligence Program

Professor, Department of Mathematics

Dr. Jean WANG

Senior Lecturer and UG Coordinator of Risk Management and Business Intelligence Program



Organizer



Co-organizer



Risk Management and Business Intelligence Program

Room 5027, Lee Shau Kee Business Building (LSK),
The Hong Kong University of Science and Technology (HKUST),
Clear Water Bay,
Kowloon, Hong Kong