## The Hong Kong University of Science and Technology Dept of Information Systems, Business Statistics and Operations Management Dept of Industrial Engineering & Decision Analytics Ioint Seminar Announcement



**Abstract**: Online labor platforms provide freelancers the opportunity to work for clients on a project basis. However, like all projects, disputes can occur when the client and the freelancer cannot reach agreement on the assessment of work quality. Disputes on online labor platforms are traditionally mediated by the platform itself, which is often viewed to be unhelpful or biased. Meanwhile, there are emerging platforms that promise to resolve the dispute with a novel tribunal system and relegate dispute resolution to individual platform users through a voting mechanism. We seek to examine the dispute resolution models used by both the traditional online platforms (i.e., the centralized dispute system) and the emerging online platforms (i.e., the decentralized dispute system), and assess whether such emerging platforms do have the advantage over traditional online labor platforms. Our results provide insights on when and how to adopt the decentralized dispute system.

We find that to ensure a fair voting outcome, the tribunal members should be sufficiently diverse. This indicates that the platform can consider selecting tribunal members randomly, rather than selecting a customized tribunal for each dispute case. Furthermore, our results suggest that the decentralized dispute system outperforms the centralized dispute system only when the freelancer's skill level is sufficiently high. Thus, gig platforms should consider switching to the decentralized dispute system only if they are able to attest to the freelancer's skill level (e.g., through certification). Lastly, we show that the decentralized dispute system can be more appealing to policy makers because not only does it move gig platforms closer to a true "sharing economy" by relegating more decision-making power to the individual participants, but it can also induce a more socially optimal outcome.

**Bio**: Prof Yao Cui is an Assistant Professor of Operations, Technology and Information Management at the Samuel Curtis Johnson Graduate School of Management at Cornell University. His research interests focus on operations management in new business models. In his research, Professor Cui combines analytical and empirical methodologies to study operations strategies in the gig economy, technology innovation in supply chains, and pricing strategies in hospitality industries. His research has been published in leading journals such as Management Science, Manufacturing & Service Operations Management, and Production and Operations Management, and has been recognized with several awards such as the INFORMS Service Science Section Best Student Paper Competition, the INFORMS TIMES Best Working Paper Award, and the INFORMS Public Sector Operations Research Best Paper Award. At Johnson, Professor Cui is the recipient of the 2020 Half Century Faculty Research Fellowship and the 2017 Clifford H. Whitcomb Faculty Fellowship. He received his doctoral degree from the Stephen M. Ross School of Business at the University of Michigan and his bachelor's degree from Department of Industrial Engineering at Tsinghua University.