

# 哈尔滨工业大学第四届国际青年学者神舟论坛

## 经济与管理分论坛 报告摘要

报告人：谢依恬

**题目：The Conceptualization and Measurement of Cyber Hygiene**

摘要：Cyber hygiene is an essential issue in the behavioral cybersecurity field. Poor cyber hygiene can cause catastrophic impacts on individuals, organizations, and society including but not limited to financial loss, compromise of the information system, privacy breach, and so on. Despite the potential severe influence of poor cyber hygiene on individuals, organizations, and social, there is still no consistent opinion regarding what is good cyber hygiene and how to measure it. Since conceptual clarity and accurate measurement are essential in IS study, this study aiming at developing the conceptual definition, operational definition, and measures of cyber hygiene. Ten behavioral cybersecurity domains are covered, including password management, Internet use, Wi-Fi access, email use, social media use, identity theft, electronic logistics use, electronic health record use, sensitive information handling, and mobile devices security. The outcome of this study is a second-order conceptual model of cyber hygiene and a standardized measurement tool for cyber hygiene.

报告人：严望成

**题目：Understanding Employee Ridesharing Incentives: Choice Modeling with Reinforcement Learning**

摘要：Ridesharing has been a popular transportation means as it reduces travel costs, road congestion, and greenhouse gas emissions. Many governments and employers offer incentive programs to encourage commuter ridesharing. For the success of these programs, it is critical to incentivize new users' adoption and retain existing users' engagement by providing the best ridesharing experience possible. Using emerging information technology, such as mobile apps, it is now easy to fulfill ridesharing requests at any time. The ridesharing records collected via these mobile apps allow us to objectively learn employees' usage patterns and quantify the risks relative to different transportation modes for the work commute. In particular, we propose an HEV-IRL model, which uses a choice model to account for variant risk levels among transportation modes and capture personalized utility. Its parameters are learned from

longitudinal ridesharing records in the framework of reinforcement learning. This integrative model is empirically evaluated using a real-world employee ridesharing program dataset. We find that ridesharing imposes more risk than public transit or solo driving, and this risk is higher for passengers than for drivers. Though financial incentives are critical, social relationships with colleagues drive the adoption of the ridesharing service among company employees, especially drivers. As demonstrated by our simulation study, discerning users' incentives can inform the design of the ridesharing matching system that will improve user experience and retention.

**报告人：蔡一飞 博士**

**题目：Asymmetric Frequency Fourier Dickey-Fuller Unit Root Test**

**摘要：** We propose an Asymmetric Frequency (AF) Fourier Dickey-Fuller (DF) unit root test. The asymptotic theory of Fourier DF unit root test is first presented in this study. The new approach can better approximate structural breaks which are asymmetrically located. In empirical analysis, we utilize the new test to examine the unit root hypothesis on relative commodity price by considering Grilli-Yang dataset and Harvey-Kellard-Madsen-Wohar dataset. Unlike previous studies, all relative commodity prices are trend stationary. Lastly, the Prebisch and Singer hypothesis is only supported in minor cases.

**报告人：赵世荣 博士**

**题目：Performance of Chinese Banks over 2007–2014**

**摘要：** This paper examines the performance of Chinese commercial banks before, during, and after the 2008 global financial crisis and the 2008--2010 China's 4 trillion Renminbi stimulus plan. Fully nonparametric methods are used to estimate technical efficiencies. Recently-developed statistical results are used to test for changes in efficiencies as well as productivity over time, and to test for changes in technology over time. We also test for differences in efficiency and productivity between big and small banks, and between domestic and foreign banks. We find evidence of the non-convexity of banks' production set. The data reveal that technical efficiency declined at the start of the global financial crisis (2007--2008) and after the China's stimulus plan (2010--2011), but recovered in the years later (2011--2013), and declined again from 2013 to 2014, ending lower in 2014 than in 2007. We find that productivity declined during and just after the China's stimulus plan (2009--2011), but recovered in the years later (2013-

-2014), ending lower in 2014 than in 2007. We also find that the technology shifted downward from 2012 to 2013, and then shifted upward from 2013 to 2014. Over the period 2007--2014, technology shifted upward. We provide evidence that in general big banks were more efficient and productive than small banks. Finally, domestic banks had higher efficiency and productivity than foreign banks over this period except in 2008.

报告人：李琛炜

**题目： Will Privacy Concern be Transferred? An Investigation of Privacy Concern**

Transfer in the On-demand Services Enabled by Perceived Entitativity and Co-presence

摘要： As a prevalent economic paradigm, on-demand services require consumers to disclose personal information to fulfill the services, which raises their privacy concern. Since consumers have shown remarkable privacy concerns about platform-related privacy concern and provider-related privacy concern in the context of on-demand services, this study wants to see how these two types of privacy concern influence each other. Specifically, it suggests that there is a privacy concern transfer due to the perceived entitativity between service platform and service providers, which influences new and regular consumers' intention and continuance intention to use the on-demand services. The effective use of communication tools including instant messaging/phonecall, notice board, and comment/rating system will act as moderators of the privacy concern transfer by creating a sense of co-presence. The models are tested using structural equation modeling of survey data obtained from 407 on-demand service consumers. The results suggest a significant privacy concern transfer from service platform-related privacy concern to service provider-related privacy concern moderated by the effective use of notice board. The difference between new and regular consumers in the impacts of service platform-related and provider-related privacy concern is also confirmed. This study extends previous literature by differentiating two types of privacy concern as well as the privacy concern transfer between them, which is of great importance to both academics and practitioners but has been neglected in the prior literature and practice. Detailed theoretical and practical implications and future research directions are discussed.

报告人：李宜福

**题目： Service Design with Acclimation and Non-homogeneous Memory Decay**

摘要： In today's “experience economy,” service providers increasingly emphasize creating memorable, delightful service experiences. In this paper, we study the optimal sequencing and selection of activities in a service package to maximize user utility. Empirical literature shows an ideal schedule often entails an interior peak; that is, the peak (i.e., highest-utility) activity is scheduled neither at the beginning nor at the end of the package. Theoretic literature, in contrast, contends the peak activity should be scheduled either at the beginning or at the end. Our paper bridges this gap by developing a theory of interior peaks. It also provides managerial implications for activity sequencing and selection. We model the activity sequencing and selection problem as a nonlinear optimization problem, and reformulate its objective as an additive function to generate structural insights. We show heterogeneity in memory decay explains the phenomenon of interior peaks. The optimal sequence is in either an "IU" or "UI" shape. An interior peak is optimal when the memory-decay rate of the peak activity is neither too high nor too low. We show it can be optimal to schedule a low point immediately before the peak activity, creating a contrast in customer experience. In addition, as the peak activity becomes more memorable, one might be tempted to move the peak activity to an earlier slot; we show, by contrast, it can be optimal to move the peak activity to a later slot.