THE HONG KONG POLYTECHNIC UNIVERSITY DEPARTMENT OF MANAGEMENT AND MARKETING Departmental Research Seminar



Platform-Loophole Exploitation, Recovery Measures, and User Engagement: A Quasi-Natural Experiment in Online Gaming By

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Abstract

Online-gaming platforms are inevitably subject to system loopholes such as bugs. Some players may take advantage of these bugs to gain benefits illegitimately, being viewed as rule breakers by platforms. Online platforms face a dilemma between disciplining rule breakers with the risk of being perceived as unfair to the rule breakers—because rule breakers are, after all, caused by the game software's technical glitches and belong to a "gray area"—and not disciplining rule breakers with the risk of being perceived as unfair to the observers. Different countermeasures may result in significantly different economic impacts. In this study, we use the unique field data of an online-gaming platform to examine the effects of players' rule-breach behavior due to system bugs and the platform's different countermeasures on players' subsequent engagement. By employing various empirical models, we find that the occurrence of bugs negatively impacts the observing players' in-game online duration and consumption. Surprisingly, although the platform is responsible for the bugs, not punishing rule breakers leads to even larger reductions in observing players' platform engagement than punishing them. We thus suggest that the primary driver of the engagement reduction is the platform's inappropriate countermeasure, rather than the bugs, and call online platforms' attention to designing effective rules and recovery measures under the situation of a rule breach. Our findings enrich the literature and theories concerning the relationships between online-platform-loophole exploitation, associated recovery measures, and sustained user engagement.

Prof. Jianqing Chen is an Ashbel Smith Professor in Information Systems at the Naveen Jindal School of Management at the University of Texas at Dallas. He received his Ph.D. from McCombs School of Business at the University of Texas at Austin. His general research interests are in platform business models, social media and user-generated content, search engine advertising, and economics of information systems. His papers have been published in academic journals, including *Information Systems Research, MIS Quarterly, Management Science, Journal of Marketing, Journal of Marketing Research, and Production and Operations Management*. He received ISS Sandra A. Slaughter Early Career Award of INFORMs in 2016. He was the co-recipient of the Best Paper award for the Fifteenth Conference on Information Systems and Technology in 2010 and of the Best Paper award for the Fifteenth Conference on Information Management in 2007, 2012, and 2015. He received the Best Associate Editor award for Year 2019 at *Information Systems Research*. He also received the Best Associate Editor award for Internation Systems in 2021 and 2022. He co-chaired CSWIM 2016, co-chaired E-Business Cluster of INFORMs in 2013, co-chaired Information Systems Cluster of INFORMs in 2014, and served as the president of INFORMS E-Business Section in 2020. He is currently an Associate Editor of *Information Systems Research* and a Senior Editor of *Production and Operations Management*.



All interested are welcome. The Hong Kong

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