In my dissertation, I study the design of digital platforms. For example, the first chapter concerns the price regulation strategies of secondary ticket platforms. In recent years, a growing number of ticket resale platforms have imposed price caps on ticket trading. This practice has been perceived to protect consumer welfare, at the expense of less platform profit. However, I show that this self-regulation can counter-intuitively hurt consumers while benefiting ticket trading platforms, even if consumers are fully rational and unconcerned with price fairness. I demonstrate how this result may arise in a matching model of sellers and buyers. Sellers have a limited supply of tickets and are heterogeneous in their willingness to sell on a platform. The platform collects a royalty fee from every transaction but can impose a cap on the transaction price. I show that a stringent price cap may drive those sellers who would otherwise charge a high price out of the market, thereby reducing the competition on the seller side. As a result, the average transaction price may turn out to be higher than that in a market with no price restriction. I discuss the relevant managerial and policy implications.

In the second chapter, I investigate in the transparency of content moderation by social media platforms. Extreme content is proven to be more engaging than neutral content, and therefore is prominent on social media. Creators through clout-chasing behaviour can gain millions of clicks and become valuable assets to the platforms they use, while polarisation in the online world extends to chaos offline (e.g., the social instability following the death of George Floyd, the Capitol riots in January 2021, etc.) and has got the attention of local authorities. In the meantime, the practice of content moderation exhibits a lack of transparency, which amplifies dissatisfaction among consumers. I present a game-theoretic model to study the impact of transparent censorship on the equilibrium outcomes. My results show that censorship can be effective in information transmission between platforms and content creators, which assists the latter to set the level of extremeness in their content more aligned with the interests of platforms. In contrast to the conventional wisdom, a social media platform with transparent moderation can increase the provision of extreme content. I also discuss the policy and managerial implications of the findings.