Gender-Biased Technological Change: Deskilling and the Allocation of Jobs in Cultural Markets

New technological innovations can often render certain skills of workers in an occupation obsolete. While such deskilling has long been a topic of research, past scholarship has overlooked the possibility that technology-driven deskilling can shape gender inequality by affecting men and women within an occupation differently. This question is particularly relevant in cultural markets where gender inequality is widespread and where technological change has significantly affected how work is performed. This article investigates how technology-driven deskilling affects the allocation of jobs to men and women in cultural markets. We put forth the idea of gender-biased technological change where technology-driven deskilling reduces job prospects for women as compared to men within a given occupation. We argue that deskilling reduces the need for artistic skills and encourages decision-makers to hire based on a cultural producer’s commercial or market appeal. This shift in hiring criteria can lead to fewer jobs being allocated to women if decision-makers assume that the market will respond more favorably to male rather than female cultural producers. We study our research question in the context of the Indian Hindi (“Bollywood”) film industry and investigate how the introduction of digital recording technologies affected labor market opportunities for male and female singers. We rely on qualitative data collected from 20 interviews with singers and music composers from the industry to develop our theory. We test our predictions using a novel dataset that tracks the credits associated with over 10,000 songs from 1985-2017, allowing us to observe the singers hired to sing each song as well as the use of digital technologies in the music recording process. This article contributes to the study of deskilling, gender inequality and cultural markets, and explores the policy implications of technological change for women in the arts.