

# CSCRL FALL FORUM

TALENT AND TECHNOLOGY - THINKING OUT OF THE BOX  
NOVEMBER 2-3, 2023

ABSTRACT

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## LEARNING FROM EXEMPLAR ANSWERS: IMPROVING ALGORITHMIC FAIRNESS IN HIRING THROUGH LOOSE COUPLING

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Machine learning (ML) and artificial intelligence (AI) are increasingly playing a role in personnel assessment and selection. However, the use of ML and AI to support human resources (HR) tasks in organizations has a short history rife with significant challenges. For example, algorithms may reinforce existing inequalities when the data used to train them reflects such inequalities. To contribute insights to address this challenge, we propose a loose coupling algorithmic fairness framework that utilizes multiple sources of ground truth labels (i.e., decentralization) thereby decoupling the relationship between predictors and target outcomes (i.e., reducing directness) in ML pipelines. We use a real-world dataset of 2,506 applicants' interview responses to predict candidate selection on a hiring platform to investigate this approach. Models based on our framework estimate the similarity of candidate responses to interview questions to human-validated exemplar answers collected from HR websites. Compared to directly predicting historical hiring decisions, the proposed approach (1) leads to fairer outcomes for underrepresented group members, and (2) is less able to predict candidate race based on the interview responses. We also discuss the implications of our findings for both theory and practice.

