

Washington State University

College of Education

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Will defend the dissertation

Date: February 17, 2021

Time: 8:00 A.M.

Location: Zoom by request

Faculty, students and the general public are encouraged to attend

**EXPLORING EQUITY AND ACCESS IN SCHOLARSHIP
APPLICATIONS USING MACHINE LEARNING: A MIXED
METHODS APPROACH**

Co-Chairs: AG Rud and Ashley Boyd

Using critical theory of technology and intersectionality, this study uses a mixed methods approach to investigate how power dynamics are embedded within the scholarship application of a two-year college in the United State. It also researches what might happen if the scholarship determination process was completed by machine learning and how that might impact students from under-represented communities. Findings indicate that scholarship applications encode power dynamics into the questions based on the federal eligibility requirements, how it defines demographic information like ethnicity and race. The application also presents as objective, subjective measures such as grade point average. In addition, power dynamics are likely to be part of how reviewers evaluate student responses. Applying machine learning to this process appears to remove the power dynamics from the reviewers, however, it perpetuates and amplifies the power dynamics embedded within the application itself, thus creating a harmful effect for students from under-represented communities.