

Quantitative Approaches to Social Justice

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Civil rights leader, educator, and investigative journalist Ida B. Wells said that "the way to right wrongs is to shine the light of truth upon them." In this nontechnical talk, I demonstrate how quantitative and computational approaches can shine a light on social injustices and help build solutions to remedy them. One project uses data science tools to study gender representation on mathematics journal editorial boards, finding that of 13,000 editorial positions studied, a mere 8.9% are held by women. A second project constitutes a large scale study of gender and ethnic representation amongst artists whose works are held in the collections of major U.S. museums. We estimate that 85% of these artists are white and 87% are men. We find that the relationship between museum collection mission and artist diversity is weak, suggesting that a museum wishing to increase diversity might do so without changing its emphases on specific time periods and regions. Finally, I will mention other quantitative social justice projects underway in the realms of criminal justice, music, education, and more.