

Cyber Challenges to International Human Rights

Title: Reshaping Ability Grouping through Big Data

Name: Yoni Har Carmel

Institution: University of Haifa

Abstract:

This article examines whether incorporating data mining technologies in education can promote equality. Following many other spheres in life, big data technologies that include creating, collecting, and analyzing vast amounts of data about individuals are increasingly being used in schools. This process has already elicited widespread interest among scholars, parents, and the public at large. However, this attention has largely focused on aspects of student privacy and data protection and has overlooked the profound effects data mining may have on educational equality. This Article analyzes the effects of data mining on education equality by focusing on one educational practice—ability grouping—that is already being transformed by educational data mining.

Ability grouping is the practice of separating students into classes or tracks according to their perceived academic abilities. While some educators support the practice, arguing that it helps teachers adjust to the needs of their students, critics argue that ability grouping reinforces educational inequalities. Implicit biases that pervade educational decision-making processes result in the overrepresentation of students from racial and ethnic minorities, and students from poor families, in lower tracks in which they receive inferior education and limited opportunities.

Given the well-documented biases in traditional ability grouping, data-driven ability grouping (DDAG)—the use of algorithms to inform assignment decisions—may be a step in the right direction.

However, as this Article demonstrates, the use of data mining technologies for ability grouping creates a host of unique challenges in terms of educational equality. This Article argues that traditional doctrines of equal protection will be unable to contend with the biases DDAG is likely to create. Instead, this Article offers a novel approach to the legal regulation of DDAG that involves integrating legal and technological expertise and creating equality-sensitive algorithms. The combination between legal and technological solutions can ensure DDAG decreases biases in ability grouping and promotes educational equality.