# PROPORTIONAL REPRESENTATION BEYOND ELECTIONS

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Proportional representation (PR) is an important goal in many scenarios in which a subset of candidates needs to be selected based on the preferences of voters over those candidates. Traditional ways to achieve PR assume that candidates or voters (or both) come in predefined categories (political parties or voting districts), which greatly simplifies the task of finding representative outcomes. In the general case, when neither candidates nor voters come in predefined groups, it is surprisingly challenging to capture proportional representation formally. Perhaps as a consequence of this, the (computational) social choice literature has produced numerous competing criteria for when a selected committee qualifies as "proportional." In this talk, I will give an overview of some of those notions and I will discuss applications of PR that go well beyond elections. For example, PR is relevant in participatory budgeting, digital democracy platforms, and blockchain consensus protocols.