

PhD proposal: Possibilities in classification aggregation

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Classification Aggregation (CA) has emerged recently as a new area of interest in social choice. In this setting, we are interested in studying functions that aggregate classifications, which are assignments of objects to categories. The set of objects and categories are pre-determined and multiple individuals classify a set of objects, and a CA function produces a societal classification.

Recent works have shown the interest of this setting, and multiple impossibility theorems have been proposed.

In this proposal we suggest investigating possibilities of constructing reasonable classifiers, by weakening or relaxing axioms in impossibility theorems so as to allow for functions that satisfy them to exist. Our goal will be, following the approach proposed in axiomatic social choice, to characterize such functions and argue that the resulting function is reasonable in the sense of being a minimal necessary relaxation of axioms that would otherwise conduct to an impossibility.