S – Societal aspects

Dimension	*Societal aspects*
Sub-dimension	*Diversity in research*
Indicator name	*S1: Gender diversity index*
Rationale	We measure diversity in the AI field, to track the representation of female researchers in the field and the impact of gender equality policies. This indicator measures Gender diversity of a certain conference and makes an average over most relevant AI conferences.
Definition	The diversity indices originate from the study of biodiversity of species in an environment. We consider three different *species* (S = 3) in the gender dimension: "male", "female" and "other". We compute Shannon evenness by means of the Pielou diversity index. For calculating the Gender Diversity Index, we consider three different communities: keynotes (k), authors (a) and organisers (o). The final GDI performs a weighted average among the Pielou index in each community with the following weights: 1/2 for keynotes, 1/3 for authors and 1/5 for organizers.
Unit of measurement	[0, 1] from less to more heterogeneous/diverse
Geographical coverage	World
Geographical granularity	World
Breakdown	This indicator is measured for each scientific conference. We might aggregate over conferences in a given year using statistics such as the average or the standard deviation, or select only few relevant conferences such as ICML, NeurIPS.
Data source(s)	divinAI.org
	DivinAI (Diversity in Artificial Intelligence) is an initiative of the HUMAINT project at Joint Research Centre (EC) and the ICT Department at Pompeu Fabra University, Barcelona. The goal of DivinAI is to research and develop a set of diversity indicators, related to Artificial Intelligence developments, with special focus on gender balance, geographical representation and presence of academia vs companies. The collaborative website collects data on keynote speakers, members of the organisation committee and authors from the most relevant AI conferences worldwide:
Reference date	2017-2020 (one value per year)
Known limitations	These diversity indexes are computed for each conference.
References and Comments	Reference: Freire, A., Porcaro, L., and Gómez, E., Measuring Diversity of Artificial Intelligence Conferences. https://arxiv.org/abs/2001.07038