

The AI Power Disparity Index

Toward a Compound Measure of AI Actors' Power to Shape the AI Ecosystem

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Introduction

AI systems are shaping decision-making, social norms, and democratic governance.

Yet we lack tools to understand how **power** over these technologies is distributed and how power disparities evolve.

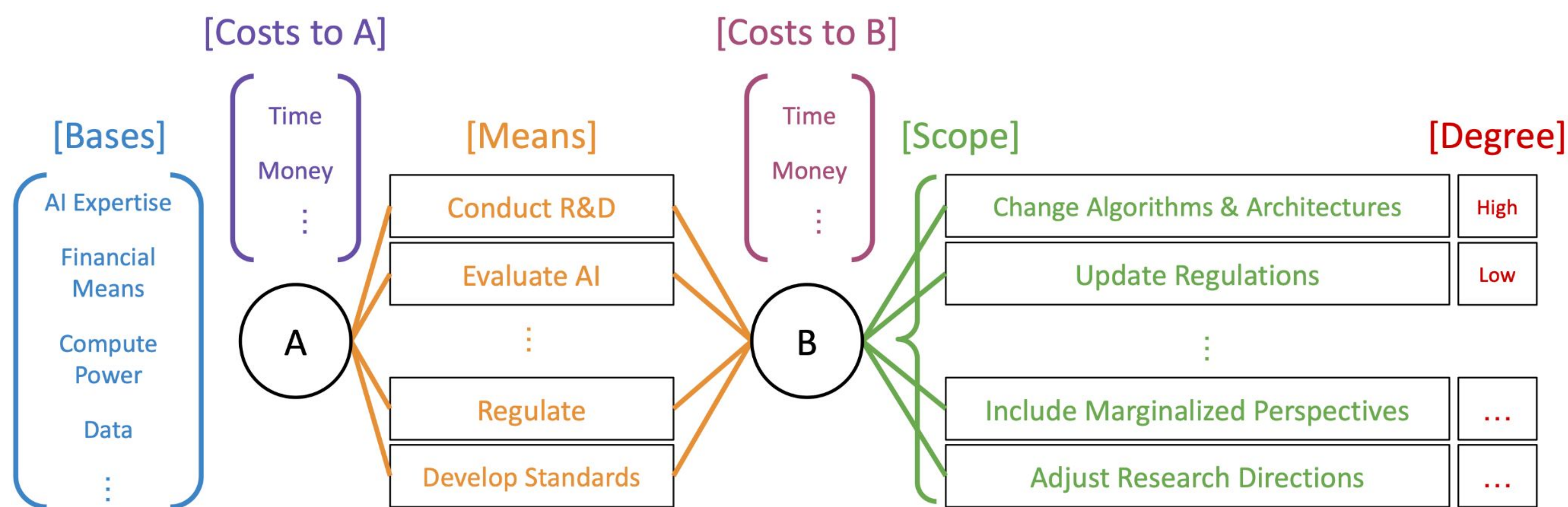
The **AI Power Disparity Index (AI-PDI)**: a compound indicator that makes visible where power disparities arise among governments, civil society, academia, and the technology sector.

Motivation:

- Normative: the AI-PDI is a mechanism for foregrounding democratic values in the governance of AI.
- Pragmatic: indices are transformative in shaping policy discourse and driving changes in a wide range of domains because they distill complex, multidimensional concepts into a single, easy-to-interpret measure.

We develop the conceptual framework for the AI-PDI.

Systematization of Power



Power is a *relationship* between two actors.

The power of actor A over actor B is characterized by:

- A's **bases** (resources such as data, compute, capital)
- A's **means** of exerting influence
- B's **scope** of affected behavior
- The **degree** of impact
- A's **domain** (how many actors are subject to A's influence)
- **Costs to A and B**

Using these dimensions, we outline a network approach where every pair of actors has a power vector.

Conceptualizing Power Per Actor

Academia

- Bases: education and research provider
- Means: train new AI researchers, shape peer review, determine scientific priorities
- Ex: power over the technology sector by producing many of the influential figures of industry AI labs

Civil Society

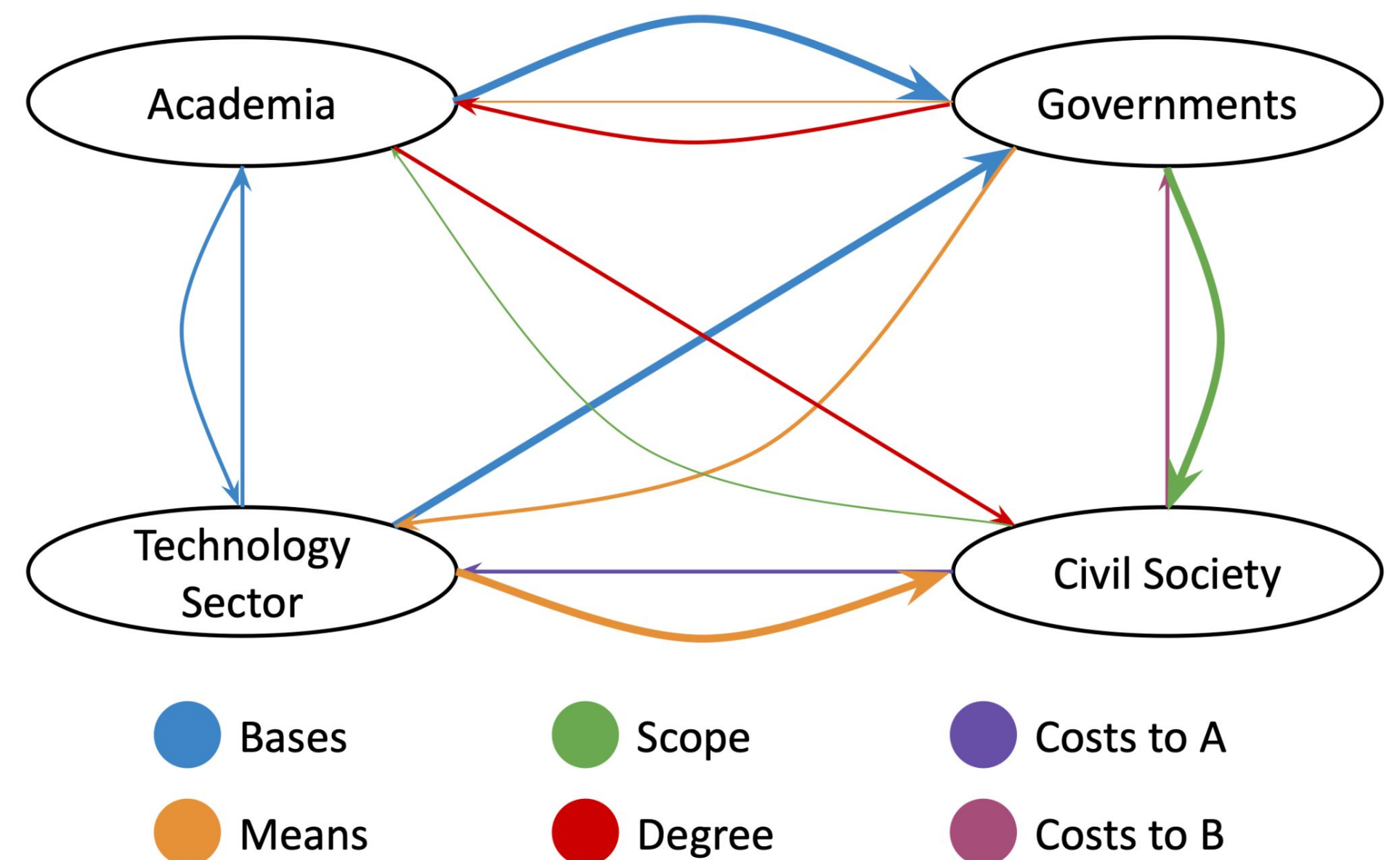
- Bases: data ownership, public attention and pressure
- Means: advocacy, standard setting
- Ex: power over academia by directing academic research agendas

Technology Sector

- Bases: financial resources, data, compute, highly-capable AI models, AI expertise
- Means: model use
- Ex: power over civil society by providing models

Governments

- Bases: entity managing a political unit (country, state, etc.)
- Means: pass laws and regulations, set norms and standards
- Ex: power over technology companies by passing laws



Next Steps

Next Steps: using the **Delphi Method** to refining indicators via expert consensus, gathering measurements, and compiling the index to release period public updates.

We envision the AI-PDI to serve as a critical resource for policymakers, researchers, and civil society to track evolving **power** dynamics around AI.

By making **power** legible, the AI-PDI can shift debate beyond technical capability and adoption toward questions of equity, legitimacy, and control, ultimately supporting to support a more just and inclusive AI ecosystem.

Outputs of the AI-PDI: comprehensive actor **power** profiles, quantified assessments of each pairwise relationship between actors, and a nuanced report.

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