

# **Robustness Appendix – Algorithmic Legislators (GIQ)**

## **Sensitivity to AI Quota (Dense Grid)**

Grid over  $\rho \in [0.00, 0.60]$ , step 0.05;  $T = 1$ , adaptation on; 50 replicates. CSV: `supp_dense_grid.csv`. Inverted-U with maxima around  $\rho \approx 0.25\text{--}0.30$ ; bootstrap CI for argmax from `-supp-dense-analyze`.

## **do-Interventions (Blocking Adaptation; Shocks)**

Two  $\rho$  settings (0.30, 0.50); random adaptation blocks and exogenous shocks to declared positions. CSV: `supp_do_interventions.csv`. Adaptation blocking delays/attenuates recovery; shocks increase inconsistency, with transient effects under adaptation.

## **Transparency Factorial (Tin/Tproc/Tout)**

$2 \times 2 \times 2$  at  $\rho = 0.30$ ; CSV: `supp_transparency_factorial.csv`. Process transparency drives inconsistency discovery; input/output transparency have modest direct effects in this setup.

## **Metric Weights**

Trust/Performance weights varied across ten schemes; rank-order stability (Kendall's  $\tau > 0.90$ ).

All robustness artefacts can be regenerated via command-line flags (see Computational Appendix).