AI Readiness in Public Governance: The Case of Digital Democracy in Taiwan

Karl Ho ●ⓘⒹ
University of Texas at Dallas
karlho@gmail.com

Abstract

We examine Taiwan's digital-democratic institutions (vTaiwan, JOIN), legal baselines (PDPA), and AI governance trajectories (AI Action Plan, DIGI+, draft AI Basic Law), benchmarking against OECD AI Principles and the EU AI Act. We pair participation and open-data indicators with election/survey data to assess AI-readiness in public governance.

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1. Defining Digital Democracy

Digital democracy refers to the institutions, tools, and practices through which citizens, civil society, and the state co-produce public decisions via digitally mediated participation, transparency, and accountability mechanisms across information access, consultation, deliberation, co-creation, and oversight (see reviews in pol; sys).

Taiwan's notable implementations include **vTaiwan** (consensus-oriented consultation using Polis) and the national **JOIN** platform, which link ministries with multi-stakeholder input and allow citizen proposals and supervision vTaiwan overview, JOIN portal.

2. Taiwan's Digital-Democracy Architecture

- **vTaiwan** process and outcomes: see case write-ups and the official information portal (https://info.vtaiwan.tw/).
- **JOIN** (https://join.gov.tw): issue discussions, proposals, and supervision.
- **MODA** (Ministry of Digital Affairs) coordinates digital policy; see open data statements and API-first direction (e.g., https://moda.gov.tw/en/digital-affairs/plural-innovation/operations/244).

3. Data & Measures

We operationalize "AI-readiness in public governance" via four pillars and open indicators:

- **Institutions**: presence of digital institutions (MODA), algorithm registry/AIA guidelines (proxy via policy docs).
- **Legal**: PDPA + draft AI Basic Law alignment (proxy via existence/status).
- **Data**: API coverage (data.gov.tw CKAN endpoints), update latency, metadata completeness.
- **Participation**: JOIN proposal volumes & response times; vTaiwan consensus episodes.

3.1 Data sources

- **Open Data portal** (data.gov.tw) – CKAN-style API, package search; use the `package_search` endpoint (see: CKAN API docs).
- **CEC** (Central Election Commission) – open data portal for elections (https://data.cec.gov.tw/) and election DB (https://db.cec.gov.tw/).
- **TEDS** (https://teds.nccu.edu.tw/) and **TSCS** (https://www2.ios.sinica.edu.tw/sc/en/scDownload.php) – survey access (manual approval may be required).

If `params$run_pull` is `TRUE`, we run `R/data_pull.R` to refresh datasets.

3.2 Indicator construction

3.3 Visual checks

4. Illustrative Findings

- Participation trends (JOIN) and response-time distributions.

- Open API coverage and update latency on selected datasets.
- Crosswalks to CEC turnout for contextualization.

5. Policy for AI-Readiness (Taiwan)

We propose a seven-item package: AIA workflows integrated with vTaiwan/JOIN; standardized AI procurement (model cards, evaluations); PDPA-strengthening for generative AI; Open APIs for key governance artifacts; civil-service AI literacy + sandboxes; sovereign compute for public-interest audits; leadership milestones at MODA (algorithm registry, AIA playbook, procurement checklist, quarterly scorecards). See global references OECD AI Principles and EU AI Act summary.

References

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