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Economic AI Elevation Index: A measure fi study economic progress weh link wid AI

Adrian Dunkley | 2026-11-10

Di index look pon internet, broadband, electricity an participation inna di workforce. Eleven outta fifteen country have all di input dem. Di score cyaan tell how much income or productivity AI bring.

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1. Weh di score measure

EAEI a one proposed framework fi study di economic effect a AI. Di outcome dem weh it aim fi study a sustained productivity, job quality, more people taking part an how di gain share out. Dis pilot nuh measure dem outcome. It calculate one foundation score from selected condition weh coulda support AI use.

Di full framework have five evidence area: access an infrastructure, skill an adoption, productivity an quality, distribution an job change, an governance weh people haffi answer fi. Di pilot cover some measure a access an participation. It nuh score skill, adoption, measured productivity, wage, who own business, safety or how benefit share out. Missing evidence nuh get zero.

Di IMF AI Preparedness Index examine condition fi adoption. UNESCO RAM examine capacity fi govern AI. EAEI propose a later test fi see if country condition link wid measured benefit. Di pilot nuh establish dat link [11, 12].

2. Country, data an missing value

Di study cover di 14 sovereign CARICOM member dem plus Dominican Republic. It nuh cover all a di Caribbean or Latin America [1]. CAIA get di World Bank Indicators API data pon 10 November 2026. Di reference snapshot a fi 2024 [7].

Fi each input, di snapshot use di latest available value from 2022 through 2024. If any required input missing, di country nuh get an overall score. Di historical view need every input from di exact year weh it show. It nuh carry a earlier value forward to a next year.

Internet use: internet user as percentage a di population. Dat nuh measure AI use or how good di connection is. Fixed broadband: fixed subscription per 100 people. One subscription nuh equal one unique person. Mobile access is a separate measure.

Electricity access: percentage a people weh have access. Dat nuh measure outage, reliability or cost. Participation ratio: female labour-force participation rate divide by male rate, times 100. It nuh measure equal pay, job quality or overall participation.

Di input file keep indicator code an observation year. Di participation series use estimate weh ILO model. Nuh all input come straight from survey observation [2–5]. GDP per person at purchasing-power parity give a separate comparison wid income. Purchasing-power parity adjust fi difference inna price level. Dis income measure nuh enter di foundation score [6].

3. How fi calculate di foundation score

Fus convert each input to a value between zero an one. I a internet use divide by 100. B a fixed broadband subscription per 100 people divide by 40. E a electricity access divide by 100. P a participation ratio divide by 100. Set zero as di lower limit an one as di upper limit fi each converted value.

Di digital part a D = √(I × B). Di default foundation score a 100 × (D × E × P)^(1/3). Dis geometric mean multiply di three part dem an tek di cube root. Di converted part dem nuh have physical unit.

CAIA choose 40 fixed subscription per 100 people fi di broadband reference. Dat a scaling choice. It nuh stand fi one internationally validated target or a household coverage target, an it nuh imply seh every person need a fixed line.

Internet use an fixed broadband each supply half a di digital part influence. Dat limit di overlap widout removing it. Di default formula gi digital, electricity an participation equal weight.

One low part bring down a geometric mean more than an arithmetic mean. One zero input gi a zero score. A missing input mean no score. Dem a design choice, not economic relationship weh di study estimate. Di assessment allow yuh change di weight an di broadband reference, then update di score from di published input. Di OECD handbook an JRC guide explain why an index need fi disclose dem choice [9, 10].

4. Result from di published data

Eleven country have complete input under di snapshot rule. Antigua an Barbuda, Dominica, Grenada an St Kitts an Nevis nuh have di required participation value fi 2022–2024. Dem nuh receive an overall score. Di median fi di eleven complete country a 76.8 outta 100. Each country count equal inna dat median. It nuh represent a regional estimate weighted by population or a target.

Jamaica default score a 78.5 outta 100. Di 2024 input dem a 90.1% internet use, 16.0 fixed subscription per 100 people, 97.7% electricity access an 82.6% participation ratio. Di digital part reach 60.0 after di broadband conversion. Dat result partly depend pon how di index define digital access.

Barbados get 89.7. Di broadband value come from 2022 an di other input dem from 2024. Haiti get 30.1. Di fixed-broadband value particularly low under di formula dem choose. Dem result cyaan tell yuh how well any one business can use AI.

A business weh use mobile connection can operate where fixed broadband limited. Check if di fixed-broadband measure fit di local problem. Di score alone cyaan justify a purchase or investment.

5. How di design choice dem change di result

Di analysis test 10,000 combination a three nonnegative weight weh add up to one. It sample di possible combination uniformly. Di random seed a 20261110. Di input dem an broadband reference stay fixed.

Fi Jamaica, di 5th to 95th percentile score range a 65.3–91.9 across dem weight choice. Di corresponding rank range a 3–6. Dem range show how sensitive di result is to di weight. Dem nuh confidence interval nor probability bout Jamaica.

Across di eleven complete country, di Pearson correlation between di default score an di natural logarithm a PPP GDP per person a 0.721. Dis small selected sample cyaan support a conclusion bout cause. Shared development condition coulda affect both measure. Later test need fi find out if di score add information beyond income difference.

Exact-year coverage drop from ten country inna 2020 to five inna 2024. Di historical animation change both di value an which country have complete data. A regional trend analysis need di same country dem inna each year. Comparing one country through time need complete input fi each year yuh pick. Source revision can change earlier value. Di release keep di retrieved file dem an dem digital fingerprint fi identify di exact data used.

6. Weh di next study haffi test

Di World Bank an ILO identify digital access as one constraint pon potential AI assistance inna Latin America an di Caribbean. Dat support studying access; it nuh validate di EAEI formula [13]. Workplace finding vary by setting too. Brynjolfsson, Li an Raymond study support agent. Becker an colleague study experienced developer inna one early-2025 experiment. Neither study give one effect weh fit every Caribbean sector [14, 15].

Di proposed next study use earlier foundation measure an a sample a establishment weh select wid known probability. It need fi record adoption date, verified task time, output quality, cost, paid hour an wage. Di design haffi define sector group an account fi business size an previous productivity.

Measurement before an after adoption need a suitable comparison group. Di test dem haffi check whether di score add information beyond income. Separate country or later data haffi test if di result hold outside di design sample.

Di current pilot can help public agency find missing statistic an question bout access. Employer can join country data wid local task measurement an LAC Eval test. Economic analysis haffi separate substitution, productivity an new work [16]. Claim bout economic benefit need evidence a dem effect. Credit di original data provider an follow each dataset licence term [8].

Di 16 source dem check pon 10 November 2026. Di note dem show weh CAIA check an how di study use it.

Suos dem

[1] CARICOM. Member States and Associate Members. Official member-state list check pon 10 November 2026. Sample use sovereign member plus Dominican Republic.

[2] World Bank WDI / ITU. Individuals using the Internet (% of population), IT.NET.USER.ZS. API value fi 2020–2024. Observation year keep fi each country.

[3] World Bank WDI / ITU. Fixed broadband subscriptions per 100 people, IT.NET.BBND.P2. Subscription count, not unique people or percentage a household. CAIA use 40 as di scaling reference.

[4] World Bank WDI. Access to electricity (% of population), EG.ELC.ACCS.ZS. Access measure; it nuh measure reliability, outage or affordability.

[5] World Bank WDI / ILO. Ratio of female to male labour force participation (%), SL.TLF.CACT.FM.ZS. ILO modelled estimate. Participation include people weh employed an people weh a look fi work. It nuh measure equal pay.

[6] World Bank WDI. GDP per capita, PPP, constant 2021 international dollars, NY.GDP.PCAP.PP.KD. GDP inna constant 2021 international dollar; use only fi check dependence pon income.

[7] World Bank. Indicators API documentation. Version 2 API. Query URL, response date an file fingerprint keep wid di analysis.

[8] World Bank. Data Access and Licensing. Some dataset have exception, an third-party source keep dem own condition.

[9] OECD, European Union and EC-JRC (2008). Handbook on Constructing Composite Indicators. Publication detail an methodological scope; use together wid di JRC implementation guide.

[10] European Commission, Joint Research Centre (2025). Composite Indicators: 10 Step Guide. Step 1–10 cover construct, missingness, weighting, aggregation, sensitivity an external comparison.

[11] International Monetary Fund (2024). AI Preparedness Index, 2023 data edition. Dataset documentation an construct description; comparator only, no IMF score import.

[12] UNESCO. AI Readiness Assessment Methodology. Overview a weh RAM is an how it work, check pon 10 November 2026.

[13] World Bank and ILO (2024). Generative AI and Jobs in Latin America and the Caribbean: Is the Digital Divide a Buffer or Bottleneck? At-a-glance section an key message. Regional range nuh predict one country result.

[14] Brynjolfsson, E., Li, D., and Raymond, L. (2025). Generative AI at Work. Quarterly Journal of Economics, 140(2), 889–942. Abstract an introduction: staggered rollout, 5,172 support agent, 15% average productivity increase inna dat setting.

[15] Becker, J., Rush, N., Barnes, B., and Rein, D. (2025). Measuring the Impact of Early-2025 AI on Experienced Open-Source Developer Productivity. Historical randomised study wid 16 developer an 246 task. It nuh describe all developer or di current tool dem.

[16] Acemoglu, D., and Restrepo, P. (2019). Automation and New Tasks: How Technology Displaces and Reinstates Labor. Journal of Economic Perspectives, 33(2), 3–30. Task-based framework plus displacement an reinstatement mechanism, page 3–10. DOI 10.1257/jep.33.2.3.

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