



Who on Earth Is Using Generative AI? Global Trends and Shifts in 2025

Third Submission: RR_WLD_2025_420

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This review verifies the reproducibility of the exhibits included in the paper “*Who on Earth Is Using Generative AI? Global Trends and Shifts in 2025*”.

Contents in this review:

1. Main findings
2. List of exhibits and reproducibility status
3. Reproduction Environment

Main findings

- **Every exhibit has been reproduced accurately.**
- The code was successfully executed on a new computer after:
 1. Updating the working directory.
- The output demonstrates consistent stability across multiple runs. Specifically, executing the code two times consecutively yielded identical results.
- The code takes approximately 10 minutes to run.
- We conducted our reproducibility analysis based on the paper shared by the authors.
- **Verification Process and Data Handling:**
 - The reproducibility package relies on two types of data: open, and limited-access (requires a subscription).
 - Open data is included in the public reproducibility package.
 - Reviewers used the limited-access data provided directly by the authors to conduct the reproducibility verification, and this is not included in the public reproducibility package.
 - *data_hash_report.csv* lists the SHA256 hashes of all files in the Data folder to support data integrity checks. Users who acquire the forthcoming/accessible/restricted data can use this file to verify that the data has not been altered.
- **Reproducibility Summary:**
 - **Data:** Some data is restricted and has not been included in the reproducibility package. For more details, please refer to the README file.

- **Code:** All code files (from cleaning to analysis) are included in the reproducibility package.
- **Outputs:** All outputs are generated by code included in the reproducibility package.
- **Dependencies environment:** The reviewers created a new environment using the latest versions of dependencies available at the moment of the review.

List of exhibits and reproducibility status

Results in the Main Section of the Paper

- **Figure 1 Reproduced.** Verified against fig1_treemap_202504.png
- **Figure 2 Reproduced.** Verified against fig1_treemap_mrkshare_202504.pdf.
- **Figure 3 Reproduced.** Verified against fig3_chatgpt_trend.pdf.
- **Figure 4 Reproduced.** Verified against fig4_toolcomp_trafficTrend.pdf.
- **Figure 5 Reproduced.** Verified against fig5a_deepseek_trend.pdf and fig5b_gemini_trend.pdf.
- **Figure 6 Reproduced.** Verified against fig6_trend_cat.pdf.
- **Figure 7 Reproduced.** Verified against fig7a_ChatGPT_trend_income_group.pdf and fig7b_trend_GPT_income.pdf.
- **Figure 8 Reproduced.** Verified against fig8a_deepseek_trend_income_group.pdf and fig8b_trend_deepseek_income.pdf
- **Figure 9 Reproduced.** Verified against fig9_trafficShare_trend_bycountry_GPT.pdf.
- **Figure 10 Reproduced.** Verified against fig10_treemap_country.png.
- **Figure 11 Reproduced.** Verified against fig11a_traffic_iuser_income_group.pdf fig11b_traffic_iuser_country.png.
- **Figure 12 Reproduced.** Verified against fig12_margin_decomp_income_group.pdf.
- **Figure 13 Reproduced.** Verified against fig13a_ChatGPT_usertrend_income_group.pdf and fig13b_traffic_iuser_share_income.pdf.
- **Figure 14 Reproduced.** Verified against fig14a_traffic_user_income_group.pdf and fig14b_avg_duration_income_group.pdf.
- **Figure 15 Reproduced.** Verified against fig15a_user_iuser_country.png and fig15b_traffic_user_country.png.
- **Figure 16 Reproduced.** Verified against fig16a_ChatGPT_intensity_iuser_gdp_scatter_2425.png and fig16b_ChatGPT_all_intensity_iuser_gdp_scatter_growth.png.
- **Figure 17 Reproduced.** Verified against fig17_region_share.pdf.
- **Table 1 Reproduced.** Verified against tbl1_list_all.csv.
- **Table 2 Reproduced.** Verified against tbl2_chatgpt_change.csv.

- **Table 3 Reproduced.** The column “Growth (%)” is calculated using the two preceding columns exported by the code.
- **Table 4 Reproduced.** Verified against `cross_sectional_reg_growth.tex`.

Results in the Annex

- **Figure A1 Reproduced.** Verified against `figA1_treemap_mrkshare_202304.pdf` and `figA1_treemap_mrkshare_202404.pdf`.
- **Figure A2 Reproduced.** Verified against `figA2_alltool_trend12.pdf` and `figA2_alltool_trend34.pdf`.
- **Figure A3 Reproduced.** Verified against `figA3_treemap_[country].pdf`
- **Figure A4 Reproduced.** Verified against `figA3_[AI]_intensity_country_type.pdf`
- **Figure A5 Reproduced.** Verified against `figA5_reltraffic_chatgpt_search_news` and `figA5_reltraffic_search_news`.
- **Table A1 Reproduced.** Verified against `tbl_A1_chatgpt_rank25+24.csv`.
- **Table A2 Reproduced.** Verified against `tbl_A2_chatbot_rank25+24.csv`.
- **Table A3 Reproduced.** Verified against `tbl_A3_chatgpt_intensity25+24.csv`.

Reproduction Environment

Paper exhibits were reproduced on a computer with the following specifications:

- OS: Windows 11 Enterprise
- Processor: INTEL(R) XEON(R) PLATINUM 8562Y+ 2.80 GHz (4 processors)
- Memory available: 32.0 GB
- Software version: Stata 18.0 MP