Public Attitudes Toward Artificial Intelligence and Automation: Insights from 2025 Surveys and Economic Infrastructure Considerations

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The Civic Data & Research Institute is a nonpartisan research organization dedicated to data-driven analysis and public education on civic and public policy issues affecting the general public. This report synthesizes key findings from major 2025 surveys on public perceptions of artificial intelligence (AI) and automation, examining awareness, excitement versus concern, job displacement fears, trust, and demographic variations. Additionally, it integrates insights on the economic infrastructure underpinning AI, particularly data centers, which play a critical role in powering AI systems and influencing public attitudes through their environmental, energy, and economic impacts. As AI becomes increasingly embedded in society, understanding these multifaceted attitudes is vital for ethical development, regulatory frameworks, and sustainable innovation.

Executive Summary

Global and U.S. public opinion toward AI in 2025 reflects a complex blend of optimism, apprehension, and growing awareness of its broader implications. Surveys indicate high familiarity with AI (median 81% awareness globally), with sentiments tilting toward cautious excitement—52% excited versus 53% nervous worldwide. Job displacement remains a top concern, though personal fears are low (15% in U.S. workplaces), while societal anxieties are more pronounced.

Regional variations highlight optimism in Asia (e.g., China 83%) against Western skepticism (U.S. 39%). Demographic trends show younger, educated, and male respondents as more positive. Trust in AI is mixed, with strong global support for regulation (70%). Emerging concerns extend to AI's economic infrastructure, particularly data centers, which consumed 4% of U.S. electricity in 2024 and are projected to double by 2030, raising environmental alarms—63% of surveyed leaders cite energy demand as a concern. Public awareness of data centers is low, but support wanes upon learning of impacts like water usage and emissions, underscoring intersections between AI attitudes and sustainability. These dynamics call for policies balancing innovation with equity, oversight, and environmental stewardship.

Introduction

The rapid evolution of artificial intelligence and automation technologies has transformed industries, economies, and daily life, prompting diverse public responses. In 2025, generative AI tools like large language models have become mainstream, amplifying both opportunities and risks. Public attitudes, shaped by media narratives, personal experiences, and socioeconomic contexts, influence technology adoption, workforce transitions, and policy priorities.

This expanded report draws on comprehensive 2025 data from major surveys and analyses. It covers overall sentiments, job concerns, trust and ethics, demographics, and integrates the role of data centers in shaping perceptions—given their centrality to AI's computational demands and associated economic costs.

Theoretical frameworks, such as the Technology Acceptance Model (TAM) and Diffusion of Innovations theory, explain attitudes as functions of perceived ease of use, usefulness, and risks. Economic factors, including massive investments in AI infrastructure, add layers of concern around sustainability and inequality. By addressing these, the report aims to inform stakeholders on fostering responsible AI ecosystems.

Overall Awareness and Sentiments Toward AI

Public awareness of AI has reached saturation levels in many regions. A spring 2025 global survey of 25 countries reported a median 81% of adults having heard at least a little about AI, with 34% hearing "a lot"—up from prior years amid widespread tool adoption. In the U.S., similar trends hold, with exposure driven by applications in search, content creation, and personalization.

Sentiments are nuanced, blending enthusiasm for AI's transformative potential with wariness of unintended consequences. A 2025 monitor found 52% global excitement, tempered by 53% nervousness, reflecting ambivalence over rapid change. Another index highlighted a rise in optimism, with 55% viewing more benefits than drawbacks in 2024 (up 3% from 2022), particularly in Europe where skepticism has eased.

Regional disparities are evident: High optimism in emerging markets like Indonesia (80%) and China (83%) contrasts with lower figures in developed nations such as the U.S. (39%) and Canada (40%), possibly linked to differing economic stakes and media portrayals. A December 2025 poll noted 49% favorable U.S. views of AI overall, rising to 63% among younger men.

Region/Country Example	% Seeing More Benefits than Drawbacks (2024-2025)	% Excited vs. Nervous (2025)
Asia-Pacific (e.g., Thailand)	77%	High excitement
China	83%	High excitement
United States	39%	Concern > Excitement

Global Median	55%	52% Excited / 53% Nervous

These attitudes are increasingly influenced by AI's visible infrastructure, such as data centers, which symbolize the technology's resource intensity and economic scale.

Concerns About Automation, Job Displacement, and Economic Infrastructure

Automation and job impacts remain central to public unease. A 2025 U.S. survey indicated over half of respondents extremely or very concerned about AI eliminating jobs, with broader societal fears outweighing personal ones. Workplace data showed only 15% of U.S. employees fearing imminent job loss to AI within five years, yet 45% reported occasional use, suggesting adaptation amid anxiety. Polls tracked a rise in negative societal impact perceptions from 34% in late 2024 to 47% by June 2025.

Expert-public divides persist: Specialists are more optimistic about job creation, with 39% anticipating net losses compared to public majorities fearing displacement. Sectoral views vary—promise in healthcare and security but harm in education.

Extending beyond jobs, concerns encompass AI's economic infrastructure, notably data centers. These facilities, essential for training and deploying AI models, have surged in demand, driving economic growth but sparking environmental and cost worries. An October 2025 analysis noted data centers accounting for 4% of U.S. electricity in 2024, projected to exceed 8% by 2030 amid AI boom. A December 2025 survey revealed 63% of leaders citing data center energy demand as an environmental concern, alongside 58% for overall consumption and 56% for emissions.

Public awareness is low—a September 2025 poll found most voters unaware of local data center construction, with support dropping 5 points to 51% upon learning of health, environmental, and economic impacts like strained grids and water usage. A March 2025 report emphasized mixed acceptance, with concerns growing as AI-driven demand skyrockets. Economic analyses position data centers as GDP engines, yet public perceptions often frame them negatively, especially when labeled "AI centers" versus generic "data centers," per a December poll showing more unfavorable views.

This integration of infrastructure concerns broadens AI attitudes, linking technological optimism to tangible economic and ecological costs.

Trust, Regulation, and Ethical Perceptions

Trust in AI varies by dimension: Higher for technical capabilities than societal or safety impacts. Globally, 70% support mandatory regulation, with worries over insufficient government involvement. Data privacy confidence has dipped slightly.

Ethical concerns extend to infrastructure: A January 2025 explainer highlighted generative AI's environmental footprint, including data centers' water and electricity demands, fueling public calls for sustainable practices. A November 2025 article projected AI energy at 21% of global electricity by 2030, amplifying ethical debates.

Demographic Variations in Attitudes

Attitudes differ markedly by demographics.

- **Age**: Younger groups exhibit higher awareness and positivity; data showed under-30s more likely to interact daily with AI. Frequent workplace use noted among millennials.
- **Gender**: Men are more optimistic (57% favorable), women more anxious about risks.
- **Education/Income**: Higher strata report greater benefits; lower-income cohorts feel more vulnerable to displacement and infrastructure costs like rising energy bills.
- **Regional/Cultural**: Urban dwellers may be more exposed to AI benefits but also infrastructure debates, such as local data center expansions.

These variations highlight needs for targeted education and support.

Interconnections and Policy Implications

Public attitudes interconnect across domains: Greater exposure tempers fears but heightens specific concerns like displacement and energy use. Data centers exemplify this, as AI's economic boom—driving $1 trillion+ annual infrastructure spending—clashes with environmental realities, potentially eroding trust if unaddressed.

Policy recommendations include robust regulation, workforce reskilling, and sustainable infrastructure mandates. A June 2025 survey urged addressing build-out challenges for AI data centers, while a November analysis called for governance on energy appetites. Inclusive strategies could mitigate demographic gaps and foster equitable AI growth.

Conclusion

2025 surveys reveal publics grappling with AI's dual-edged nature: innovative promise amid risks of displacement, ethical lapses, and infrastructure burdens like data centers' escalating energy demands. By integrating economic realities, this analysis underscores the imperative for holistic policies promoting transparency, sustainability, and inclusion.

The Civic Data & Research Institute advocates continued monitoring to guide responsible AI advancement.

References

Brookings Institution. (2025). The Future of Data Centers. https://www.brookings.edu/articles/the-future-of-data-centers/

Data for Progress. (2025). Most Voters Are Unaware of the Construction of Data Centers in Their State and the Environmental Impacts They Cause. https://www.dataforprogress.org/blog/2025/9/8/most-voters-are-unaware-of-construction-of-data-centers-in-their-state-and-the-environmental-impacts-they-cause

Deloitte. (2025). Can US Infrastructure Keep Up with the AI Economy? https://www.deloitte.com/us/en/insights/industry/power-and-utilities/data-center-infrastructure-artificial-intelligence.html

Gallup. (2025). AI Use at Work Rises. https://www.gallup.com/workplace/699689/ai-use-at-work-rises.aspx

Ipsos. (2025). Ipsos AI Monitor 2025. https://www.ipsos.com/sites/default/files/ct/publication/documents/2025-06/Ipsos-AI-Monitor-2025.pdf

MIT News. (2025). Explained: Generative AI's Environmental Impact. https://news.mit.edu/2025/explained-generative-ai-environmental-impact-0117

Navigator Research. (2025). Views of AI and Data Centers. https://navigatorresearch.org/views-of-ai-and-data-centers/

Pew Research Center. (2025). How Americans View AI and Its Impact on People and Society. https://www.pewresearch.org/science/2025/09/17/how-americans-view-ai-and-its-impact-on-people-and-society/

Pew Research Center. (2025). US Data Centers' Energy Use Amid the Artificial Intelligence Boom. https://www.pewresearch.org/short-reads/2025/10/24/what-we-know-about-energy-use-at-us-data-centers-amid-the-ai-boom/

Stanford Institute for Human-Centered Artificial Intelligence. (2025). The 2025 AI Index Report. https://hai.stanford.edu/ai-index/2025-ai-index-report

University of Melbourne & KPMG. (2025). Trust, Attitudes and Use of Artificial Intelligence: A Global Study 2025. https://kpmg.com/xx/en/our-insights/ai-and-technology/trust-attitudes-and-use-of-ai.html

World Economic Forum. (2025). How Data Centres and AI Are Becoming a New Engine of Growth. https://www.weforum.org/stories/2025/12/data-centres-and-ai-new-growth-engine/