Scott Counts

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TECHNOLOGY RESEARCHER PROFILE

Scott Counts is a research scientist at Microsoft. He leads a science-driven technology innovation team in Microsoft's productivity division focused on analytics and product making for agentic infrastructure and experiences. Scott has extensive expertise in leveraging large-scale naturalistic data for modeling and forecasting with proven business impact across product domains. Scott has a distinguished scientific publishing and contribution record and has created and led a number of multidisciplinary research teams.

EMPLOYMENT

Senior Principal Research Manager, Microsoft *2025 – Present*

Current role: Research lead, IDEAS Research. Founded and leads a multidisciplinary applied research team focused on the future of human–AI productivity, combining expertise in computer science, behavioral science, and economics. Responsible for organizational vision, research strategy, talent development, cross-company partnerships, and translating research into product innovation for next-generation productivity and AI experiences.

Researcher to Senior Principal Research Manager, Microsoft Research *2003 – 2025*

As a research scientist at Microsoft Research working at the intersection of computer and social science, led and collaborated on numerous research projects that leverage naturalistic data, ranging from search query to physical sensor and most recently AI interaction data. Project areas include AI usage, social networking, social media analytics, search query analytics, health modeling, economic forecasting, urban science, and user behavior modeling.

PRODUCT & RESEARCH LEADERSHIP

Examples of research leadership and product impact at Microsoft:

Semantic Telemetry: User behavior measurement for the AI era *2023 – 2025*

Founder and lead. Semantic Telemetry is an analytics platform to characterize user behavior in AI systems. Led development of inferred measurement to improve AI chat systems. Responsible for research agenda setting and the product improvement pipeline.

Eclipse: Air quality sensing for cities *2019 – 2023*

Founder and lead. Eclipse is a hardware-to-analytics platform for hyperlocal air quality sensing in cities: state-of-the-art sensing hardware paired with a cloud-based data stack for ML-based calibration and analytics. Responsible for overseeing data and ML engineering; managing public and private third-party partnerships; and overall design, deployment, and research.

Economic Measurement Group: Economic and financial forecasting *2014 – 2019*

Founder and lead. Built an economic modeling and forecasting system based on internet data that drove an internal trading portfolio of more than $100M and a novel Microsoft product that provided forecasts for major macroeconomic data releases. Led data modeling and engineering and served as liaison to the Treasury trading team.

EDUCATION

PhD **University of Washington**, Psychology *November 2002*
Dissertation: "Modeling and Predicting Stable Response Variations Across Situations"

BA **Claremont McKenna College**, Economics *May 1993*
Graduated Cum Laude

SKILLS

Technical: LLM-based inferencing, ML (e.g., feature creation, clustering, time series, model selection and evaluation), exploratory data analysis, data visualization, experimental statistics, R, Python; some NLP (sentiment, embeddings), deep learning (PyTorch).

Domains: User behavior modeling, agentic systems development, productivity measurement, macroeconomic modeling, measure development from naturalistic data.

Leadership: Strategic visioning and agenda development for research with high business impact, people management, leadership of multidisciplinary teams.

SCIENTIFIC PUBLICATION & CONTRIBUTION

Scott has authored more than 75 peer-reviewed publications, receiving awards for best paper (CSCW), honorable mentions (e.g., CHI), and multiple test-of-time awards (Web Science; ICWSM). Scott has chaired (CSCW) and program chaired (ICWSM) top conferences in his field. Selected publications are below; for a complete list, see Google Scholar (h-index: 54, citations: >14,000).

AI Measurement & Usage

- Counts, S., et al. (2026). AI in the Enterprise: How People Use M365 Copilot Chat. *arXiv:2605.23958.*
- Verma, G., Suri, S., & Counts, S. (2026). How Copilot Changed the Pace of Work in Word – And How We Measured It. Microsoft Technical Report MSR-TR-2026-24.
- Daepp, M., Tomlinson, K., Counts, S., & Suri, S. (2026). AI and the democratization of Knowledge Work. *Nature Computational Science.*
- Tomlinson, K., Jaffe, S., Wang, W., Counts, S., & Suri, S. (2025). Working with AI: Measuring the Applicability of Generative AI to Occupations. arXiv:2507.07935.
- Lin, Y., et al. (2024). Interpretable User Satisfaction Estimation for Conversational Systems with Large Language Models. In *Proc. ACL, 2024.*
- Wan, M., et al. (2024). TnT-LLM: Text Mining at Scale with Large Language Models. In *Proc. KDD, 2024.*

Macroeconomic Forecasting

- Counts, S., Suri, S., Brown, A., Xu, B., & Raghavan, S. (2022). *Who gets to work in the digital economy?* In *Harvard Business Review.*
- Lin, A., Cranshaw, J., & Counts, S. (2019). Forecasting U.S. domestic migration using internet search queries. In *Proc. WWW, 2019.*
- Chancellor, S. & Counts, S. (2018). Measuring employment demand using internet search data. In *Proc. CHI, 2018.*
- Proserpio, D., Counts, S., & Jain, A. (2016). The psychology of job loss: using social media data to characterize and predict unemployment. In *Proc. Web Science, 2016.*
- Mao, H., Counts, S., & Bollen, J. (2015). Quantifying the effects of online bullishness on international financial markets. In *European Central Bank Statistics Papers.*

Health Modeling

- Mitra, T., Counts, S., & Pennebaker, J. (2016). Understanding anti-vaccination attitudes in social media. In *Proc. ICWSM, 2016.*
- Zhang, A. & Counts, S. (2016). Gender & Ideology in the spread of anti-abortion policy. In *Proc. CHI, 2016.*
- Murnane, E. & Counts, S. (2014). Unravelling abstinence and relapse: smoking cessation reflected in social media. In *Proc. CHI, 2014.*
- De Choudhury, M., Counts, S., & Horvitz, E. (2013). Social media as a measurement tool of depression in populations. In *Proc. Web Science, 2013.*

PATENTS

- Wan, M., Neville, J., Yang, L., Safavi, T., Jauhar, S., Shah, C., Buscher, G., Anderson, R., Manivannan, S., Counts, S., Suri, S. "Dataset Clustering Via Language Model Prompts," United States Patent No. 12399955.
- Counts, S., Moeur, R., von Veh, C., Cranshaw, J., Chancellor, S., Carbary, A. "User Interface for Visualizing Search Data," United States Patent No. 11416535.
- Yom-Tov, E., Horvitz, E., White, R., De Choudhury, M., Counts, S. "User behavior monitoring on a computerized device," United States Patent No. 9427185.
- Morris, M., Counts, S., Roseway, A., Schwartz, J. "Interactive search results page," United States Patent No. 9292602.
- Portnoy, W., Cheng, L., Counts, S. "Automatically generated highlight view of electronic interactions," United States Patent No. 8316315.
- Hoff, A., Johns, P., Counts, S. "Computing a time-dependent variable value," United States Patent No. 8190477.
- Counts, S. "Game builder for mobile device-based games," U.S. Patent No. 8123599.
- Counts, S., Krumm, J., Schwartz, J., Glenner, S. "Determining physical location based upon received signals," United States Patent No. 7933612.
- Counts, S., Farnham, S., Schwartz, J. "Implicit group formation around feed content for mobile devices," United States Patent No. 7684815.
- Counts, S., Smith, M., Jacobs, A. "Activity classification from route and sensor-based metadata," United States Patent No. 7668691.