

Can GenAI really boost enterprise innovation?

Recent research projects demonstrate the similarity between LLM responses and the real world. Here's a selection of academic papers on how to use GenAI to boost innovation in marketing, crowdsourcing, knowledge productivity, and more.

■ AI tools help understand **consumer behaviors & preferences.**

AI tools will play a crucial role in understanding consumer behavior and preferences.

Researchers queried GPT-3.5 with hundreds of survey prompts about products like toothpaste and laptops.

GPT competently simulated consumer responses in market research. Responses aligned with established economic theories, such as higher income correlating with greater price tolerance, and with consumer behavior patterns.

AI can replace or supplement traditional market research methods and is capable of providing bias-free insights into consumer behavior.

James Brand, Ayelet Israeli, Donald Ngwe

March, 2023

[Source](#)



The Crowdless Future? GenAI is shaping the **future of crowdsourcing.**

A collaborative future where human creativity and AI efficiency combine to solve complex organizational challenges.

Researchers compared generative AI's capability for innovation against human crowdsourcing, focusing on sustainable and circular economy solutions.

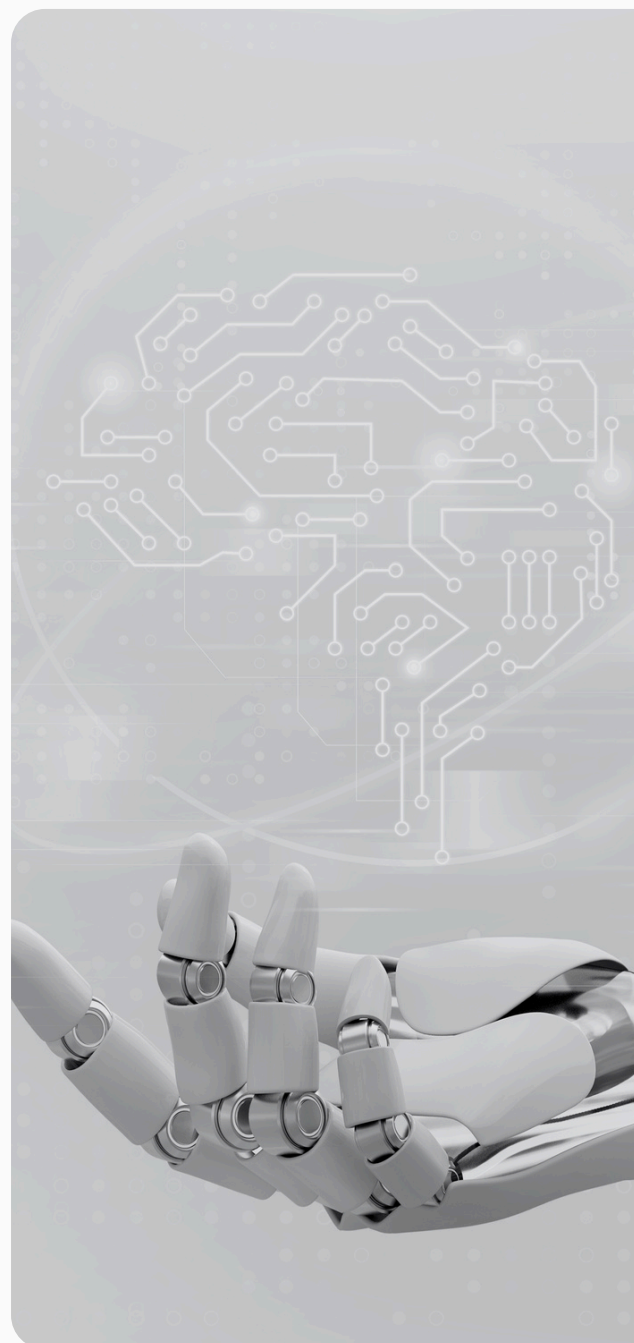
The study featured a diverse range of global participants alongside AI-generated solutions, with GPT-4 programmed to simulate various levels of human expertise.

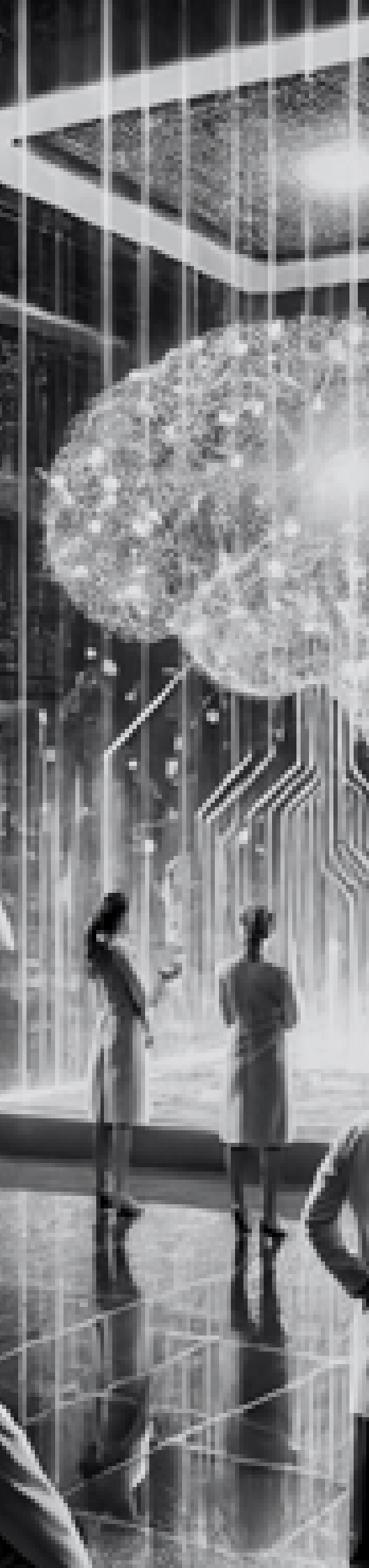
A group of 145 experts reviewed 234 solutions, both human and AI-generated. Human ideas excelled in novelty, while AI solutions were superior in environmental and financial impact.

*Leonard Boussioux, Jacqueline N. Lane,
Miaomiao Zhang, Vladimir Jacimovic,
Karim R. Lakhani*

August, 2023

[Source](#)





■ Out of One, Many: Using language models to **simulate human samples.**

Introducing the concept of 'algorithmic fidelity:' AI can accurately emulate diverse human attitudes and behaviors.

Researchers used GPT-3 to simulate human groups for social science research and understand human behavior.

GPT-3 created 'silicon samples' to compare against human response patterns.

GPT-3 can mirror the complex interplay of ideas, contexts, and attitudes found in human responses.

A significant shift in social science research methodology: using AI for a more comprehensive and efficient study of human social and political behaviors.

Lisa P. Argyle, Ethan C. Busby, Nancy Fulda, Joshua Gubler, Christopher Rytting, David Wingate

September, 2022

[Source](#)



Learning to use the bicycle for the mind: **solving the knowing-doing gap** with Generative AI.

Just as learning to ride a bike can be a challenging and sometimes painful process, so is adapting to GenAI.

Why do smart people bounce off of Generative AI tools? GenAI systems often disappoint users in practical applications. A majority acknowledge the transformative impact of GenAI on their careers and industries, but less than 10% utilize these tools regularly.

This disparity is called the "Generative AI Knowing-Doing Gap": it's difficult to effectively integrate new technologies like GenAI into everyday practices.

The process involves overcoming embarrassment, enduring physical and ego bruises, and requiring instruction and practice. These learning experiences, while difficult, are essential for mastering new skills and technologies.

Active engagement and continuous learning is necessary to harness the full potential of GenAI in various fields.

Karim Lakhani

October, 2022

[Source](#)





Navigating the Jagged technological frontier AI boosts **knowledge worker productivity.**

GenAI boosts knowledge workers' productivity and quality.

Fabrizio Dell'Acqua, Edward McFowland III, Ethan Mollick, Hila Lifshitz-Assaf, Katherine C. Kellogg, Saran Rajendran Lisa Kraymer, Francois Candelon, Karim R. Lakhani

September, 2023

[Source](#)

Harvard and BCG collaborated on a study evaluating 758 consultants to understand AI's effect on their performance.

ChatGPT-4 significantly enhanced task performance, with a 25% increase in speed, 40% improvement in human-rated performance, and 12% rise in task completion.

Users are divided into "Centaur" (who divide tasks between themselves and AI) and "Cyborgs" (who integrate AI into their workflow).

AI's efficacy varies across different tasks. Must assess the value of diverse human-AI configurations for specific tasks within knowledge workflows.

