Report

Usage of AI tools in Crowdsourcing Challenges

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wazoku CROWD

In the last years, the rapid development of Artificial Intelligence (AI) technologies and Large Language Models (LLMs) – such as conversational chatbots like ChatGPT – has enabled problem solvers everywhere to access more information, more research capacity, and increased capabilities for everyday tasks.

At Wazoku Crowd, commercial, governmental, and humanitarian organizations engage with a global crowd to solve problems that can impact humankind: in areas ranging from the environment to medical advancements.

Over the last two decades, this crowd of 700,000 people (or "Solvers") have taken part in 3,000+ Challenges - problem statements with an award and set requirements. These Challenges help to solve the world's issues, and Solvers are rewarded for their efforts: individuals and organizations in the crowd have been awarded over $60m for their ingenuity, innovation, and Intellectual Property.

In partnership with **Oguz A. Acar**, Professor of Marketing and Innovation at King's Business School, King's College London, Wazoku surveyed members of the Wazoku Crowd to see how they were using AI or LLM tools, what they were using them for, and how it may have impacted their problem-solving ability.

Survey Participation and Completion

544
views

196
submissions

328
starts

143
submissions
*removing repeated entrants

Participants were asked 4 questions about their use of AI/LLM tools in Wazoku Crowd Challenges:

Frequency: How often have you used generative AI tools in submissions to Wazoku Crowd Challenges in the last year?

Usage: How do you employ generative AI tools in Wazoku Crowd Challenges?

Identification: What specific generative AI tools do you use? Select all that apply.

Effects: How has using generative AI impacted your problem solving?

Executive Summary

This report explores the trends in the use of AI by participants in Wazoku Crowd challenges, which leverage crowdsourcing to solve complex problems for global clients.

- The survey into Solvers' use of AI tools ran for 6 months, receiving 143 total submissions (with duplicates removed) from 328 starts\
- Majority of respondents (77) replied that they do not use AI/LLM tools in Wazoku Crowd Challenges
- Of those that do (66), ChatGPT was the most popular tool - its free version - followed by Google Bard and then the paid version of ChatGPT
- Most respondents who use AI tools responded that they use it for Research and Learning most prominently, followed by Idea Generation and Report Structuring
- Many users who reported using AI for Challenges emphasized its benefits on clear language, translation assistance, or structuring for formal papers. For instance,one respondent: "It helps me express my ideas in another language. I speak Spanish and I don't speak fluent English."

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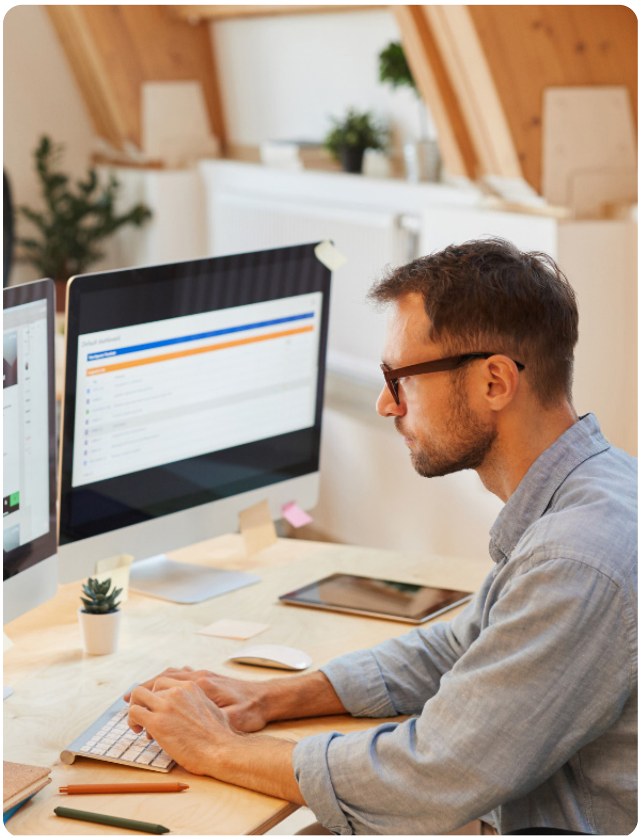
Frequency of AI Tool Usage

The data indicates a varied adoption of generative AI tools among participants. While a significant portion of users have yet to integrate AI into their problem-solving processes, a notable minority regularly employ these tools in their submissions. This divergence highlights the ongoing transition and gradual acceptance of AI technologies in crowdsourcing environments.

Usage of AI Tools

Participants utilize AI or LLM tools in diverse ways, reflecting the multifaceted nature of these technologies. The most common applications include research and learning, idea generation, and report structuringx. These trends underscore AI's role in enhancing both the creative and analytical aspects of problem-solving: users leverage AI to streamline information gathering, generate innovative ideas, and organize content more effectively.



Preferred AI Tools

Among the AI tools used by respondents, ChatGPT (in both its free and paid versions) and Google Bard are particularly popular. This preference suggests a leaning towards tools that offer robust language processing capabilities and accessibility. The choice of these tools also indicates the participants' need for accessible solutions: with free versions outstripping paid-for tools in this survey.

However, the use of AI by Solvers also presents several challenges. Issues of fairness and authenticity arise when differentiating between human-generated and AI- generated content. This is particularly relevant when considering the Intellectual Property (IP) requirements of many Wazoku Crowd Challenges. Unequal access to advanced AI tools could lead to disparities among participants, creating an uneven playing field.

The findings from the survey indicate a significant yet varied integration of generative AI tools by global problem solvers in Wazoku Crowd Challenges. While AI has been proven to offer substantial benefits in enhancing efficiency, creativity, and insight generation, it also introduces challenges related to fairness, equality, and ethics.

The Wazoku Crowd Solver Community, when it uses AI tools and LLMs, tends towards using it to enhance their existing submissions: kicking off the Ideation stage for brainstorming, using it to effectively structure or proofread proposals, or utilizing AI tools as advanced search engines for more effective research.

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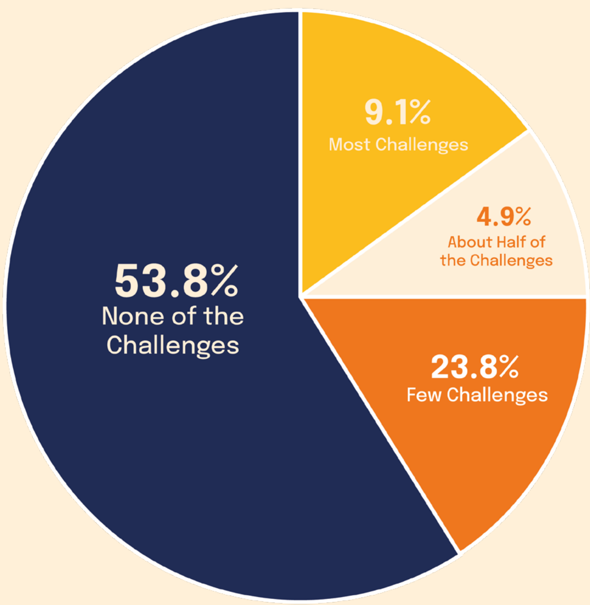
Frequency of Generative AI Tool Usage

Participants were first asked how often they used generative AI tools in their submissions to Wazoku Challenges over the past year. The responses were as follows, from least to most usage:

“ *I haven’t used the tools in any of the Wazoku Challenges I’ve taken part in.*	**77 Participants**
“ *I’ve used the tools in only a small fraction of Challenges I’ve taken part in.*	**34 Participants**
“ *I use the tools in roughly 50% of Challenges I take part in.*	**7 Participants**
“ *I use the tools in the majority of Challenges, but not all.*	**13 Participants**
“ *I use the tools in every Wazoku Challenge I’ve taken part in.*	**12 Participants**



Usage of Generative AI Tools

The survey then asked Solvers about types of usage, for those who answered that they use generative AI tools: “How do you employ generative AI tools in Wazoku Crowd Challenges?”

Idea Generation: Using AI to brainstorm and generate a wide range of potential solutions or concepts.

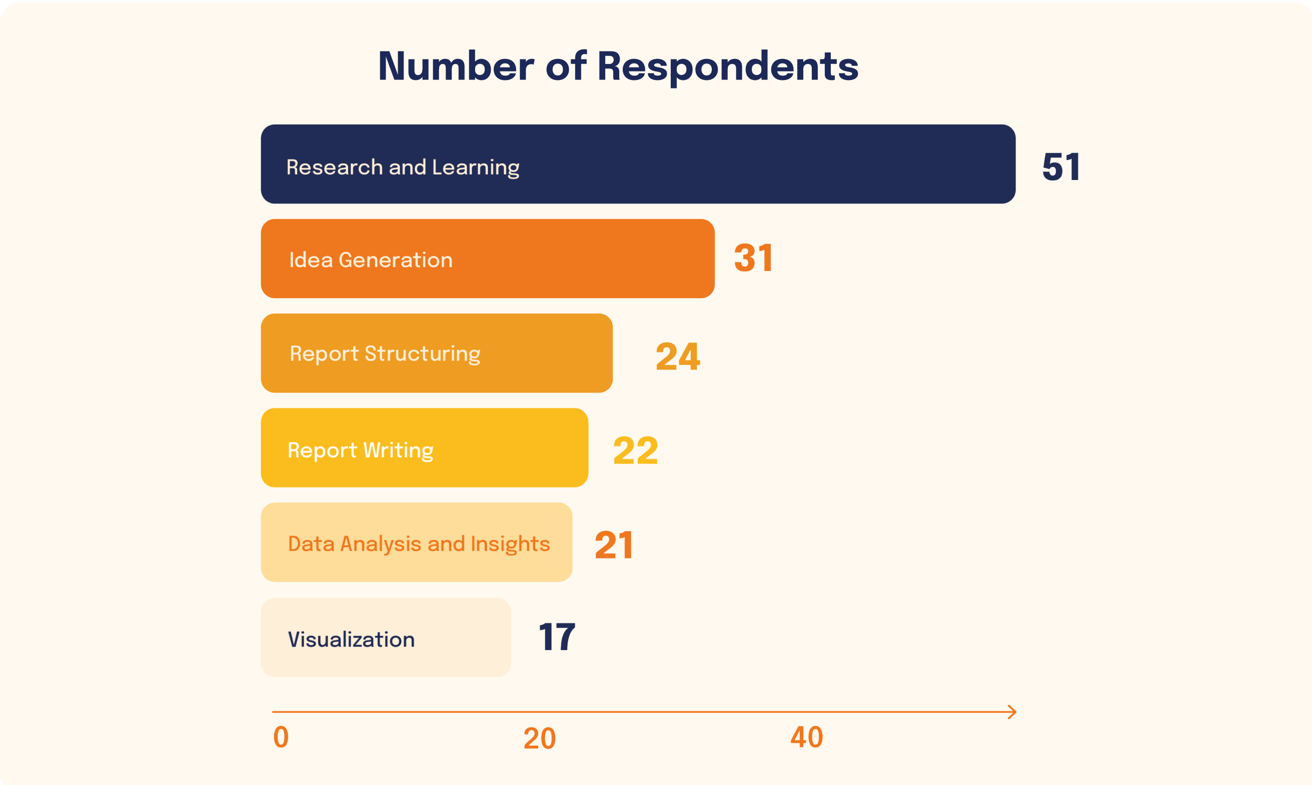
Research and Learning: Learning new information, finding research and synthesizing information from various sources for my reports.

Data Analysis and Insights: Automatically analysing data for report insights, identifying hidden patterns, correlations, or insights.

Report Writing: Using AI to generate written content for my reports.

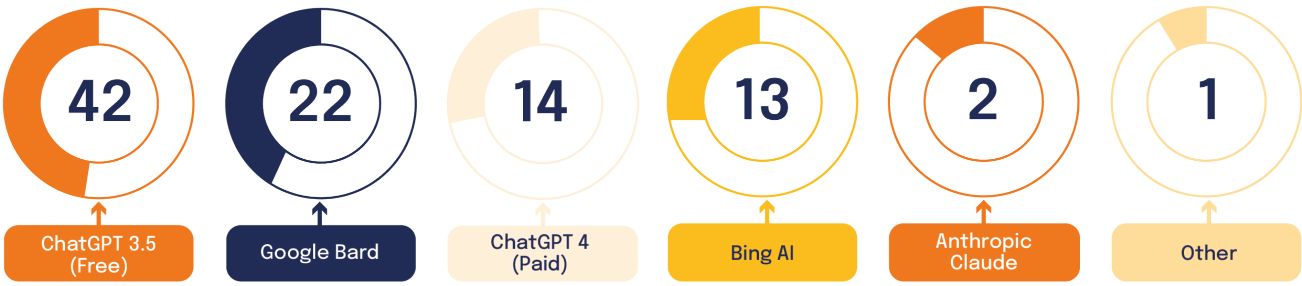
Visualization: Using AI to create dynamic and insightful visual representations of data, patterns, ideas for my reports.

Report Structuring: Using AI to organize and structure the report content optimally, ensuring clarity, flow, and coherence.



Identification of Generative AI Tools Used

In order to understand why and how Solvers are using generative AI tools to assist their problem solving, it was also necessary to identify the types of tools used. While OpenAI, Perplexity, and other large language model businesses have recently entered the space, large businesses such as Microsoft are also developing their own tools. The survey's options and responses for this question were as follows:



OpenAI's ChatGPT tool was the most popular generative AI/LLM of choice with Solver respondents, with usage skewing towards the free version (3.5) rather than the recently-released, paid-forversion (4.0).

Amongst other providers, GoogleBard was the leading choice, with 22 respondents of the 66 who answered that they use generative AI preferring this tool.

Effects of Generative AI on Problem Solving in Challenges

The Wazoku Crowd is a diverse collection of individuals, organizations, research groups, and experts from across the world. Therefore, it follows that their use (or lack of use) of AI tools may also differ wildly from person to person. This section of the survey was intended to gather qualitative and socialized data from respondents about their use of tools and its effects on their problem solving. Below are a few excerpted written responses from respondents:

Those that use AI tools:

“ I use AI to structure my solution grammatically and carry out fast research online.

“ On a couple of occasions, I used it to write introductory paragraphs on thesubject. However, the raw output required a lot of editing.

“ I only have used it to bring up initial ideas for me to expand on.

“ To organize my ideas, put them in correct style, and to check for possible coherence errors.

Those that don’t use AI tools:

“ Move on from the generative AI to actually get innovation.

“ I am 100% sure that AI alone cannot generate ideas to solve these Challenges.

“ I prefer to do my e-research elsewhere, like Wikipedia. I do not trust the AI to give unbiased answers, and even on Wikipedia there are some doubts.

Findings and Conclusions

The research on the use of generative AI tools by participants in Wazoku Crowd challenges provides valuable insights into the current landscape of AI integration in problem-solving environments. This study surveyed 544 individuals with 143 responses, revealing diverse trends in the adoption, utilization, and preferences of AI technologies.

Firstly, the data shows a significant variance in the frequency of AI tool usage among participants. While a large portion of respondents refuse to or as yet have not used AI in their problem-solving efforts, a growing number of users are integrating these tools into their regular Challenge-solving efforts. This trend reflects the broader transition towards AI acceptance, driven by increased recognition of its capabilities to enhance efficiency in research and innovation.

One of the key applications of generative AI tools for respondents is in research and learning. Participants frequently use AI to gather and synthesize information from various sources, formulating more comprehensive background information. AI is being used here to enable Solvers to access, process, and use large volumes of data: much more effectively than traditional methods. One thing to note in this usage is AI/LLM tools' tendency to 'hallucinate' statistics: so AI-enabled solutions must always be double-checked andverified by human research.

AI is also reportedly widely employed for idea generation for Wazoku Crowd Challenges. By leveraging AI's ability to brainstorm a multitude of potential solutions, participants can start from a broader range than they may already know. Stimulating creativity and inspiring novel approaches in this way may speed up problem solving as well as improving the breadth of solutions submitted to Challenges.

Another significant application of AI is in report structuring. Participants report using these tools to organize and structure their content, ensuring clarity and coherence.This use case emphasizes AI's utility to help to present and communicate findings, which is one area that respondents self-identified as being a weakness in their work.

The survey also revealed a preference for specific AI tools, with ChatGPT (both free and paid versions) and Google Bard being the most popular among users.

However, one of the primary concerns raised by respondents to the survey is the issue of fairness and authenticity. The heavy reliance on AI by some users has raised questions about the originality of submissions, with it becoming more difficult to differentiate between human-generated and AI-generated content as the technologies develop. How then can Wazoku Crowd help to ensure the integrity of the problem-solving process?

In all Wazoku Crowd Challenges, the problem statement reads: “Wazoku encourages the use by Solvers of AI approaches to help develop their submissions, though anyproduced solely with generative AI are not of interest.” This proviso is designed to encourage the use of technology to improve submissions, but not to be used as a base or as the sole solution to a problem: especially considering the IP implications of these crowdsourcing Challenges.

Another significant challenge is the potential for inequality.Access to advanced AI tools is not uniform among participants, leading to disparities in the quality and sophistication of submissions. Those with access to cutting-edge AI technologies may have an unfair advantage, which can undermine the equity inherent in crowdsourcing challenges: that the best, most feasible idea is rewarded. Issues such as bias in AI algorithms and intellectual property rights are crucial to understand, in order to develop ethical guidelines that govern the use of AI by Solvers in a way that promotes fairness, transparency, and accountability.

Moreover, there is a risk that over-reliance on AI could stifle creativity in problemsolving. While AI can enhance the creative process by providing inspiration andgenerating sources, kick-off points, and ideas, it is essential for users to strike a balance. Ensuring that their own original, human thought and innovation experience is the primary driver of their submission is critical.

Wazoku encourages the use by Solvers of AI approaches to help develop their submissions, though any produced solely with generative AI are not of interest.

The findings from this research highlight the dual nature of AI's impact on crowdsourcing challenges. On one hand, AI offers substantial benefits in terms of efficiency, creativity, and insight generation. On the other, it introduces complexities around fairness, authenticity, and verification that need to be carefully managed by users to maintain ethical and legal compliance with the rules of crowdsourcing Challenges.

In conclusion, the use of generative AI tools by Solvers in Wazoku Crowd challenges represents a significant potential for leveraging technology for effective problem- solving. The survey detailed in this report and its answers by global respondents provides a balanced overview of the benefits and challenges associated with AI tools, both quantitatively and qualitatively, for use in crowdsourcing opportunities.

Thanks to Oguz A. Acar for his work developing the framework, questions, and topicality for this Wazoku Crowd Insights Report.

Are you a researcher, academic, or author looking to discover insights from the **Wazoku Crowd of 700,000+ global problem solvers?**

Would you like to run similar surveys or programs to use as abasis for further study or publication?

Get in touch with **crowd@wazoku.com** to discuss!

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