AI for social good

How nonprofits are tackling climate action, education, crisis response, and more

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Helping the helpers

AI is fundamentally transforming our world. It has the potential to not only enhance productivity and boost creativity, but also to tackle big, societal challenges.[1] While generative AI may not be a solution for every issue, its potential to tackle many of humanity's pressing concerns is significant. In recent years, its impact has been seen across various sectors, from improving healthcare delivery or personalizing education to advancing climate action or combating misinformation. Our goal is to make AI helpful for everyone and improve the lives of as many people as possible.

As nonprofits seek innovative solutions to advance their missions and drive social impact at scale, they're looking to AI for help. The inaugural Google.org Accelerator: Generative AI provided funding, mentorship, Google Cloud credits, technical training, and dedicated pro bono support to 21 nonprofits and social impact organizations over the course of six months to use AI to push their efforts forward and catalyze meaningful impact.

This ebook highlights a subset of the Google.org Accelerator: Generative AI organizations and how they're using gen AI to drive social impact in three critical areas:

01   **Knowledge, skills, and learning**

02   **Scientific advancement**

03   **Resilient communities**

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AI has to do the most good—and do all the things that without the help of AI we can't do at all, at scale, or fast enough. Things that benefit people everywhere, and improve lives. This is critically important and it's the thing that motivates us."

James Manyika, Google SVP, Research, Technology & Society[3]

01
Knowledge, skills, and learning

Empowering people around the world with the knowledge and skills needed to thrive.
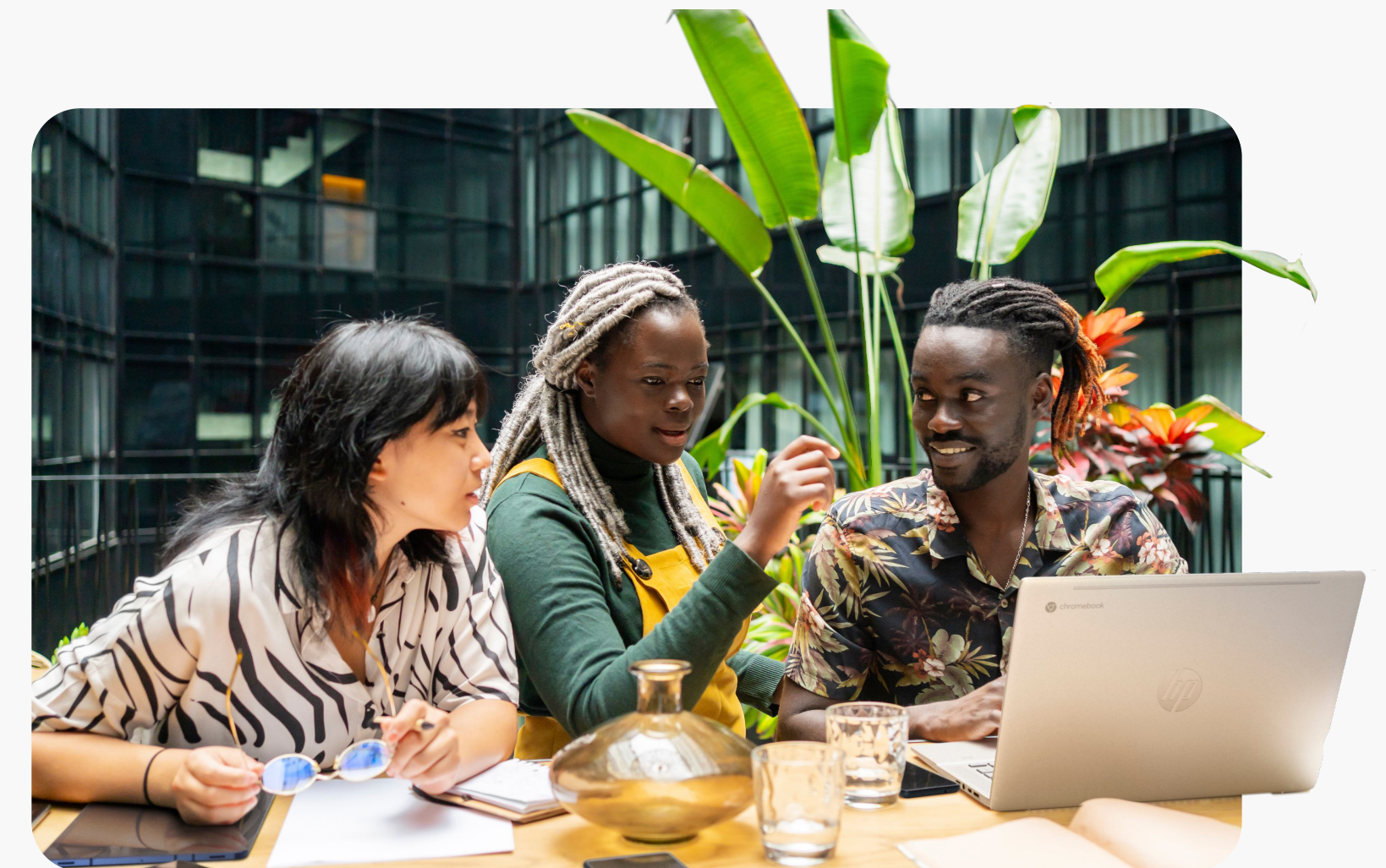
How AI could tailor learning for every student

According to the UN, 258 million[4], or 17 percent of the world's children, adolescents, and youth around the world are out of school.

When used thoughtfully, AI's pattern recognition capabilities can help uncover and address hidden biases that humans may overlook. In education, AI can personalize the learning experience, catering to individual needs and reducing the impact of unconscious prejudices. This, coupled with providing more inclusive and adaptable learning materials and methods, can lead to a significantly more equitable educational environment, improving opportunities for development.

AI-powered tutors customize the learning experience Each student has a different background, identity, rhythm, set of skills, and different areas for improvement. Therefore, a personalized education that takes each background in consideration could be more effective. That's where something like a virtual AI coach can help, by addressing students' unique needs in a way that not only encourages and supports them, but also evaluates them according to their own progress. Tailoring content to individual needs creates a more supportive and accessible educational experience.

Enhancing access The use of AI-powered chatbots and apps bridges the gap for students in remote areas, bringing them the opportunity to learn through boundless accessible resources. Equally important is AI's capability to translate educational materials into multiple languages within seconds, as well as providing helpful features for the hearing-impaired such as interpreting sign language, audio to text, and more.

Beyond 12

Supporting every first-generation student via a conversational, empathic gen AI coach.

beyond12

Having a college coach can make all the difference in whether or not someone graduates. Founded in 2009, the US-based technology nonprofit Beyond 12 works to increase the number of students from under-resourced communities who graduate from U.S. colleges and universities. Only 16%[5] of students from low-income communities in the US can expect to earn bachelor's degrees by their mid-20s, compared to 62% of their wealthier counterparts. Impressively, according to the organization, 85% of students who work with one of their coaches for four years either graduate or stay enrolled by their 6th year of college, demonstrating the transformative impact of having a coach on students' lives. *beyond12.org*

What they built as part of the Google.org Accelerator: Generative AI

Beyond 12 developed an AI-powered college coach to offer scalable success coaching to first-generation students. Students can connect with the coach via text, mobile, and web offering flexible support across multiple platforms. The AI coach is built using the Gemini API and trained with the organization's evidence-based coaching curriculum and over 10 years of student-coach interaction data. This tool will allow human coaches to focus on providing more hands-on support and help Beyond 12 reach its mission of serving one million students annually by 2030.

Coach: Hey, I notice you moved off-campus. How's your new place?

Makayla: Great, but I'm hardly here! Every weekend I have to babysit my sister 👧🏿

"

We're using the power of AI to ensure that all college students have the opportunity to earn degrees and break cycles of generational poverty."

Alexandra Bernadotte, Founder & CEO, Beyond 12

AI-powered solutions for workforce equity

The global youth unemployment rate, 13.1%[6], stands much higher than the overall global unemployment rate of 5.2%.

AI is a powerful ally in both career development and job searching. By offering personalized job matches and facilitating skill development, AI shows promise in expanding access to opportunities. This can help address critical challenges like economic growth, job creation, and social inclusion, particularly in low- and middle-income countries.

Personalized job matching and career guidance AI can help job seekers find new job opportunities through personalized recommendations. Job matching platforms powered by AI can connect job seekers with positions that best fit their skills and career aspirations, making the job search process more efficient and effective.

Enhancing skill development AI can analyze large amounts of historical data, including employee interactions and feedback to create career development plans that align with individual goals and organizational needs. AI systems can also recommend training programs to address skill gaps, which may make candidates more qualified and better prepared for the workforce.

CareerVillage

Boosting career readiness for everyone
with a personalized AI coach.

cv **CareerVillage.org**

Focused on democratizing access to career information and advice, the USA-based NGO CareerVillage is helping people navigate the uncertainties of the current job market to land the job of their dreams. They bring 12 years of experience and an extended network of over 150,000 volunteer advisors to work toward the goal of seeing 100% of world students finish their education.

Their traditional model has used crowdsourcing, where someone could post a career question and receive answers from volunteers.

But many career building activities don't fit well into a Q&A format. With generative AI now they can facilitate career-building activities through live chat, expanding what CareerVillage can offer to its beneficiaries.
careervillage.org

What they built as part of the Google.org Accelerator: Generative AI

The CareerVillage team developed an AI career platform called "Coach," which can currently perform 35 career development activities and is being built to include 100+ activities by the end of 2025, from AI-powered mock interviews, to resume and cover letter optimization, interview preparation, and more.

Coach is set to transform career outcomes for hundreds of millions of people worldwide. Currently, 10+ education and workforce development institutions in the United States are using Coach with thousands of beneficiaries across 80+ countries. Hundreds more conversations with potential partnering institutions are currently being conducted.

"

If you compare the before and the after gen AI, we passed from a very limited access platform, to a platform ready for anybody to sign up right now for free to start getting personalized career coaching."

Jared Chung, Founder, CareerVillage

Tabiya

Helping youth map work experiences to job requirements for employment.

tabiya

Tabiya is a nonprofit organization that develops open-source technology and practical solutions to connect jobseekers with opportunities. Their objective is to harness the promise of data and AI to create more equitable and more efficient labor markets, and act as a convening and incubation platform for partners. *Tabiya.org*
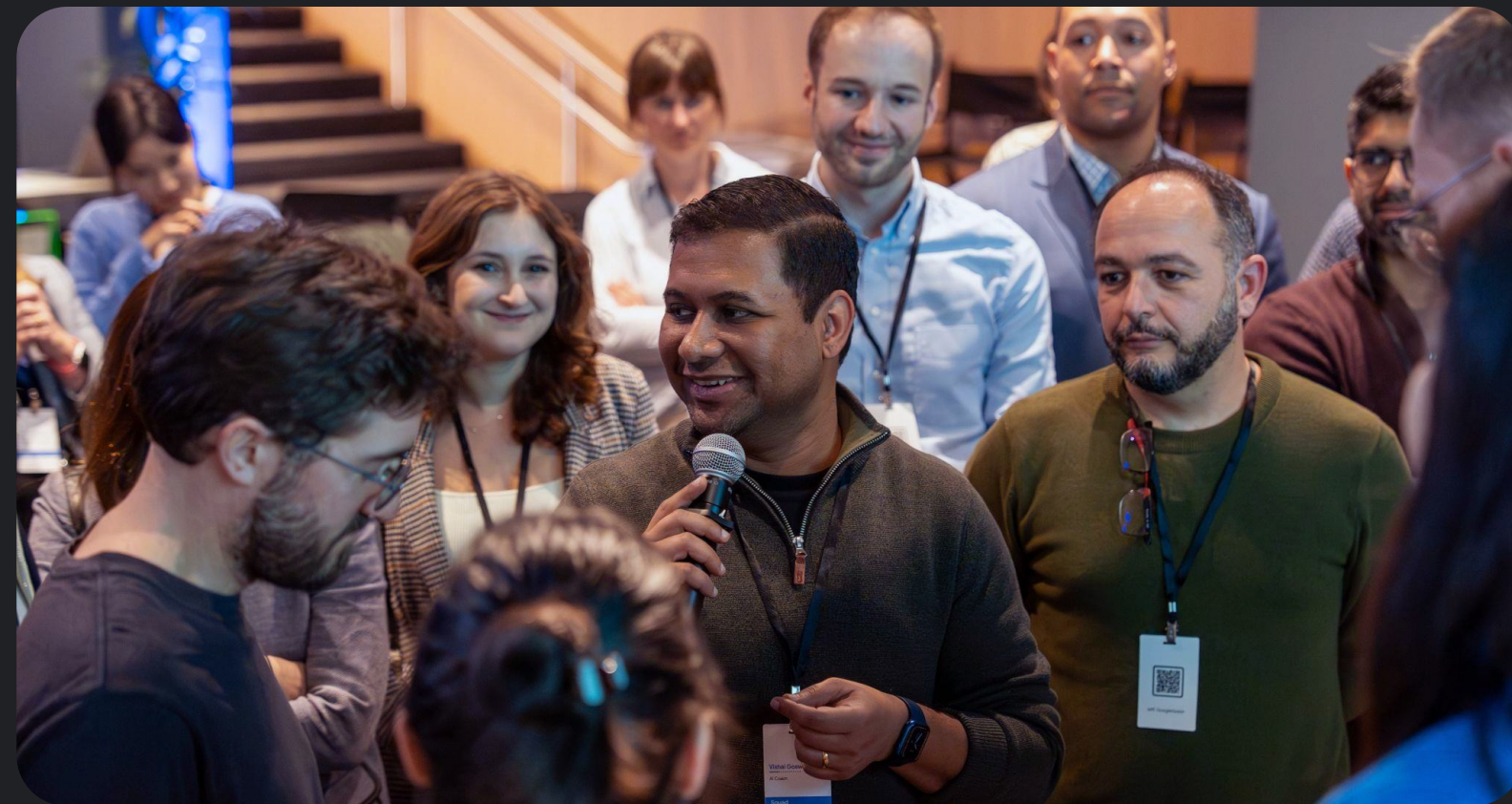
What they built as part of the Google.org Accelerator: Generative AI

Tabiya built Compass, a conversational interface powered by generative AI, aimed at addressing youth unemployment (especially in low- and middle-income countries) and helping job seekers discover their skills. The tool will be tested in South Africa, Kenya, and France before expanding globally.

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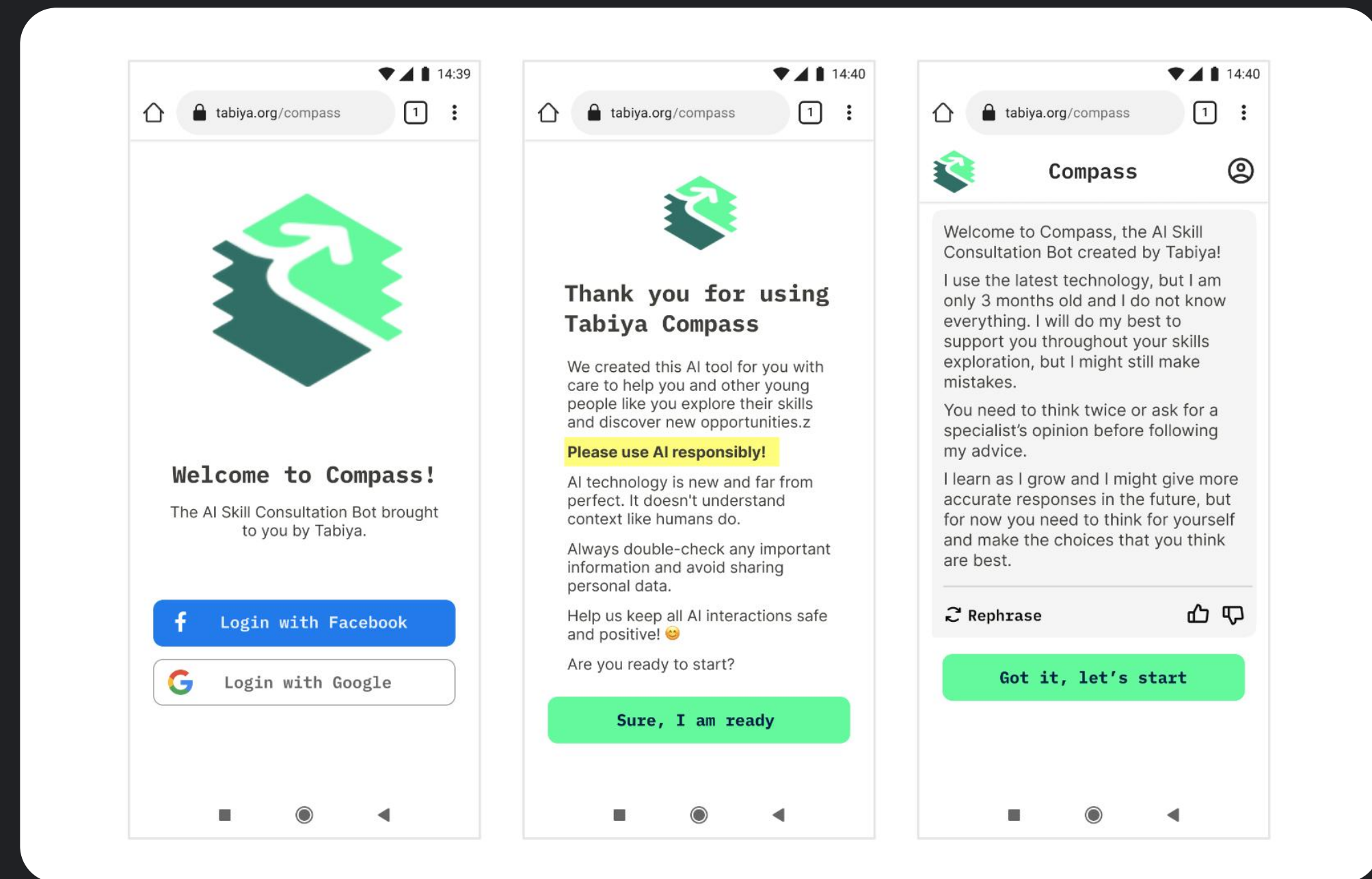
AI has the power to transform labor markets by bridging information gaps and providing scalable, cost-effective solutions that empower job seekers, especially marginalized groups."

Christian Meyer, Co-Founder and CEO, Tabiya

Use case:

Opportunity @ Work

Tailoring workforce insights to help employers find in-demand skills from workers of all backgrounds.
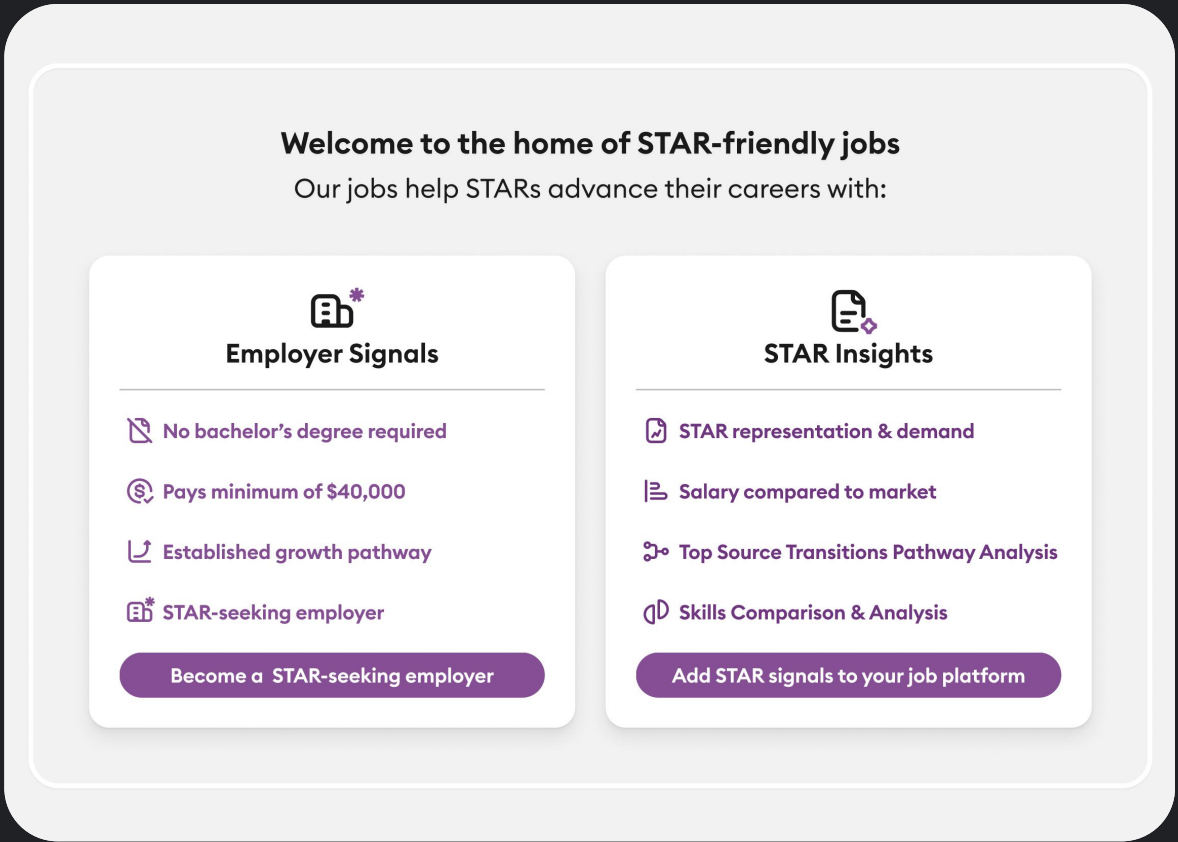
Opportunity
@ Work

Opportunity@Work's mission is to rewire the labor market so all workers in America can work, learn, and earn to their full potential. Over 70 million STARs - workers Skilled Through Alternative Routes such as community college, military service, and on-the-job experience rather than a bachelor's degree - have the skills to fill employers' in-demand jobs, but are held back by systemic barriers such as unnecessary degree screens, stereotypes, and limited professional networks. Opportunity@Work is a nationally-recognized source of labor market insights, offering customized tools and services that promote skill-based hiring practices and to tear the paper ceiling preventing STARs and employers from finding each other.

opportunityatwork.org

What they built as part of the Google.org Accelerator: Generative AI

Opportunity@Work is applying generative AI to scale a suite of software tools and APIs that illuminate STARs insights for talent strategists and elevate STAR-friendly jobs in the workforce ecosystem. They use a combination of Vertex AI and a RAG pipeline to tailor insights on STARs' skills, job pathways, and sourcing. This approach prompts STARs based on their specific business needs and enhances public job posting metadata with STARs-specific attributes and labels. These insights serve to effectively match workers for employer demands to change employer and job seeker behavior and unlock overlooked talent. Gen AI enabled this approach, which puts Opportunity@Work's core expertise, STARs data and insights, at the heart of their offerings while also improving the user experience. Flipping the switch on this approach instantly paid off, multiplying their available STAR-friendly jobs by a factor of 1000.

Welcome to the home of STAR-friendly jobs
Our jobs help STARs advance their careers with:

Employer Signals
- No bachelor's degree required
- Pays minimum of $40,000
- Established growth pathway
- STAR-seeking employer

Become a STAR-seeking employer

STAR Insights
- STAR representation & demand
- Salary compared to market
- Top Source Transitions Pathway Analysis
- Skills Comparison & Analysis

Add STAR signals to your job platform

"

In addition to immediately making the user experience more intuitive, gen AI also allows us to offer something brand new to the market and to our partners, which accelerates our effort to create greater upward mobility for STARs."

Sarah Sears. Vice President, Product, Opportunity@Work

02
Scientific advancement

Accelerating research and driving AI-enabled scientific innovation for social impact.

From automating analysis to driving innovation

Data scientists spend 60%[7] of their time cleaning and organizing data, and for the majority of them (57%), this is the least enjoyable aspect of their job.

By leveraging AI in research, organizations can alleviate many of the challenges they face, leading to more efficient and effective outcomes. Automating data analysis is revolutionary not only in terms of time, but also in terms of resources. AI tools can analyze vast amounts of complex data and identify patterns and correlations at high speed, allowing researchers to focus on the more innovative and impactful aspects of their work.

Use case:

World Bank

Improving policy-making via an open-source AI assistant.

🌐 **WORLD BANK GROUP**

Known as one of the world's largest sources of funding for developing countries and the largest development economics research and impact group, the World Bank's mission is to end extreme poverty and boost shared prosperity on a livable planet. The World Bank works with 189 countries, in close partnership with multilateral institutions, the private sector, and civil society. *worldbank.org*

What they built as part of the Google.org Accelerator: Generative AI

The World Bank is developing a tool to extract key information from research literature on the causal impact of development interventions. The tool is tasked to inform decision-making among policymakers and development researchers across critical topics related to reducing poverty and ensuring a livable planet, from food security, to public health, to energy efficiency, and much more. By reporting the impact of different interventions and identifying those best suited to reach stated objectives, it aims to empower users to allocate the $220B in annual aid and trillions in annual impact investing more effectively.

With the support of gen AI, they are able to extract insights from the research literature and make it available to decision-makers through a web interface where answers to questions are provided with remarkable efficiency (90% faster). DIME, the World Bank's Development Impact group responsible for this initiative, already works with a network of ten organizations and expects around 100,000 users to utilize this public good within the first year.

Impact AI

+ NEW CHAT

Chat History

improve education

technology-aided ther...

energy efficient devices

mental illness

food supply adequacy

Show More

Scientific evidence for a world free of poverty on a livable planet 🌍

| How can we improve the food security index? | How can food supply adequacy be improved? | Evidence on the effectiveness of technology-aided therapy. | Do energy efficient devices reduce energy consumption? |

"

Historically, manual curation of evidence would take weeks if not more. By automating the process with gen AI, it takes just a couple of seconds to scan through the literature to get the insights needed to make the right decisions."

Samuel Fraiberger, Data Scientist and DIME AI Program Lead, World Bank

How AI is providing information and enabling climate action

Emissions from fossil fuels rose by 1.1 percent in 2023[8] compared to 2022 levels, showing an alarming increase.

AI has the power to drive groundbreaking advancements to drive climate action. Algorithms can analyze vast datasets on energy consumption, water usage, and waste generation, adjusting resource distribution accordingly. Furthermore, AI facilitates the transition to renewable energy sources, such as solar and wind power, by optimizing their integration into the energy grid and efficiently balancing supply and demand, thus helping regulate resource management and waste reduction.

Materiom

Accelerating the transition from fossil-based to regenerative biomaterials.

materiom

UK-based Materiom unites an extensive network of scientists, commercial material developers, and consumer brands to work on accelerating the innovation of alternative materials that are waste-free and regenerative by design. 89 countries are represented in their user base.

Their focus is to replace the petrochemical plastics that account for around 51% of waste generated each year[9] (141 millions tons for packaging, 39 millions tons for clothing and textiles) with sustainable materials. For Materiom, providing open access to information is an

important leverage point for change. That's why they created an open database of material recipes that anyone, anywhere, can use. By helping replace petrochemical plastics with materials that nourish the planet, their goal is to avoid the creation of 329 million tons of plastic waste by 2040[10]. *materiom.org*

What they built as part of the Google.org Accelerator: Generative AI

Materiom is developing a gen AI tool that enables entrepreneurs to develop compostable bio-based materials. A big part of their mission is to create better and faster access to information, and with the help of GenAI, users can discover and optimize their materials faster. This in turn allows for speedier creation of novel materials that can replace petrochemical plastics, helping transform the packaging, textile, and built environment sectors into being net-positive for the planet.

"

Gen AI accelerates the discovery process so significantly that we can reduce the time needed to identify new materials by 90%, potentially saving entrepreneurs hundreds of thousands of dollars."

Alysia Garmulewicz, Founder and co-CEO, Materiom

03
Resilient communities

Strengthening local communities and fostering a safer digital environment.

AI-powered solutions for community empowerment

2.6 billion people[11], or one-third of the global population, remain offline, according to the International Telecommunications Union (ITU).

Designing AI for social impact starts with ensuring widespread access to real-time, accurate, critical information for vulnerable populations when they need it most. This means creating tools and resources for people in dire situations, such as asylum seekers or individuals facing displacement, that are easy for them to understand and use. As society advances, we must leave no one behind.

Enabling greater access to information When it comes to increasing access to information in high-stakes moments of need, AI is being used in a myriad of ways—from providing contextual guidance to help people understand materials and translating text into almost any language in seconds, to optimizing and expanding internet infrastructure in underserved areas by

analyzing historical data. These efforts are helping foster greater connectivity and opportunity for everyone.

Providing actionable insights and recommendations Generative AI can play a crucial role in crisis response by enhancing communication and support systems. It can rapidly process data from multiple sources, delivers real-time information, and generates predictive analyses to pinpoint and target critical interventions. Generating actionable insights, decision-making recommendations, and even tailored legal advice, gen AI can provide a comprehensive understanding of emergencies within seconds, empowering the user to relay a well-informed and effective response.

Justicia Lab

Helping immigrants find a path to status through customized recommendations.

JUSTICIALAB

Justicia Lab aims for a new era of immigrant justice by simplifying and expediting the immigration process while upholding every person's rights to dignity, privacy, and safety. This organization addresses the consequences of the immigration crisis affecting millions of people entering the U.S.

Justicia Lab is pioneering an AI innovation lab specifically focused on immigrant justice. Immigrants often receive complicated, English-only letters from the government that are filled with legal jargon. With the help of AI, they're minimizing the complexity of the complicated legal system,

guided support to immigrants in their native language. Although this particular project will be implemented in North America, the organization is studying the possibility of extending it to other regions. They are also investigating the possible application of the same system to other areas like healthcare.
justicialab.org

What they built as part of the Google.org Accelerator: Generative AI

They're developing an AI-powered assistant that will simplify legal processes for asylum seekers and immigrants at large. The tool allows them to simply take a picture from a legal letter or document they received in English, extract valuable information, and receive personalized guidance and next steps in a practical and supported format such as push notifications with reminders on deadlines. The tool can also connect them with Justicia Lab's network of legal providers for extended support.

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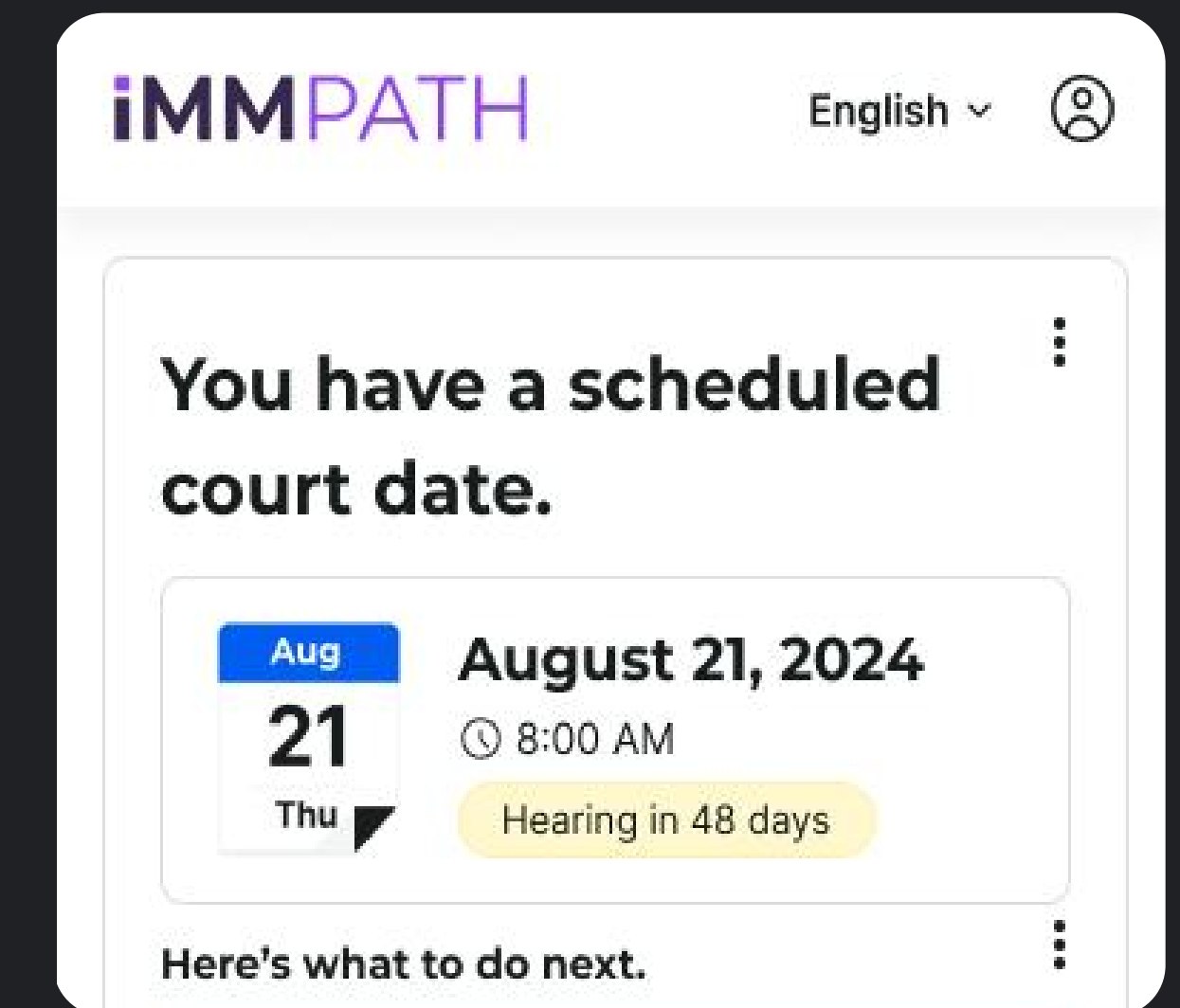
We can use technology to get information faster and make the difference between someone being safe or in danger of deportation."

Rodrigo Camarena, Director, Justicia Lab

IRC

Delivering critical humanitarian information during crises using an ecosystem of virtual assistants.
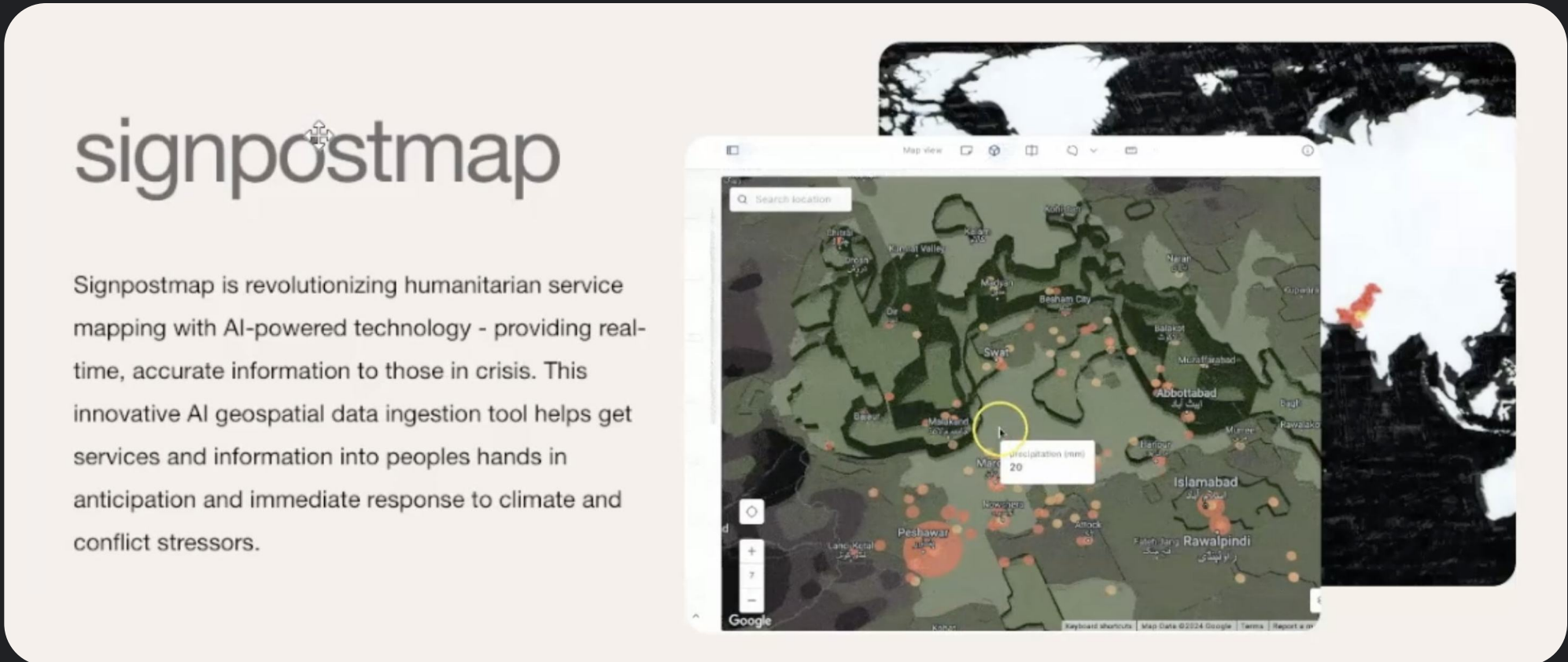
INTERNATIONAL
RESCUE
COMMITTEE

The International Rescue Committee responds to the world's worst humanitarian crises, including the conflict in Ukraine, Gaza, Sudan, and ongoing crisis in Afghanistan. The organization helps restore health, safety, education, economic wellbeing and power to people devastated by conflict and disaster.
signpostai.org

What they built as part of the Google.org Accelerator: Generative AI

IRC's Signpost developed an AI-powered public infrastructure for humanitarian response as part of its Signpost AI project—the world's largest access-to-information initiative, operating in 30 countries. This innovative AI infrastructure enables the rapid deployment of chatbots that can deliver critical, life-saving information to those affected by disasters, armed conflicts, and other forms of exclusion. The AI system is tasked with drawing on the vast knowledge base of Signpost's content with the intention of providing comprehensive, accurate, and contextually relevant responses that adhere to IRC's rigorous "good practices" criteria. This approach not only can enhance the quality of support by allowing more personalized engagement with individuals who have sensitive questions and complex needs but also ensures that this infrastructure can scale to reach millions worldwide, continuously adapting to serve the public in times of crisis, and empowering other humanitarian organizations to create their own multilingual virtual agents to deliver critical information efficiently and cost-effectively.

signpostmap

Signpostmap is revolutionizing humanitarian service mapping with AI-powered technology - providing real-time, accurate information to those in crisis. This innovative AI geospatial data ingestion tool helps get services and information into peoples hands in anticipation and immediate response to climate and conflict stressors.

"

By leveraging generative AI, we are able to deliver our extensive content— approximately 30,000 documents— in a personalized manner tailored to individual needs and challenges."

Andre Heller Peracher, Director SignPost project at IRC

How AI is helping combat misinformation

Fact checkers perform an essential job today. Human discernment is needed to distinguish what is true and debunk falsehoods, but time constraints can limit their ability to tackle the onslaught of distorted or false information being generated. That's why using gen AI can help saving time and resources by conducting initial screenings, facilitating the work of fact checkers.

In the UK, for example, 71% of the population[12] was concerned that voters would be misled by false or misleading claims in the recent election campaign.

Google Cloud   37

Use case:

Full Fact

Scaling generative AI tools to combat online health misinformation.

FULL FACT

Full Fact, headquartered in the UK, has been fighting misinformation for over a decade. They use technology to address disinformation, advocating for the verification of public claims and campaigning for change such as updating election laws to protect against misleading claims online . With generative AI they developed a tool that can analyze and summarize large volumes of health content, reducing fact checkers' workload to a more manageable scale. *fullfact.org*

What they built as part of the Google.org Accelerator: Generative AI

Full Fact currently works with 30 fact checking organizations in 18 countries and three languages. With gen AI, they're reducing the amount of information that requires monitoring so human fact checkers can instead focus on specific claims or harmful misinformation, allowing them to work more efficiently and have greater impact.

At a recent global fact checkers conference, 33 fact checking organizations expressed interest in working with Full Fact after they showcased advances in their tool.

"

We are leveraging the power of Google's Gemini Model to do the heavy lifting for fact checkers. It takes what would be 10,000 hours of monitoring and surfaces the most harmful content in a fraction of the time."

Kate Wilkinson, Senior Product Manager, Full Fact

How AI Is transforming public service

3 in 10 people[13] participate in at least one form of social safety net in the OECD. As a result, case workers are overwhelmed, with 85% of case workers reporting signs of burnout[14].

Gen AI can help individuals, organizations, and businesses operate more efficiently and become more competent. Many organizations worldwide serve crucial missions aimed at benefiting the common good, yet they often struggle due to limited resources. Gen AI can play a crucial role in streamlining processes, reducing both costs and time, enabling these organizations to assist a greater number of people.

Use case:

mRelief

Supporting access to food security programs via chatbot assistant.
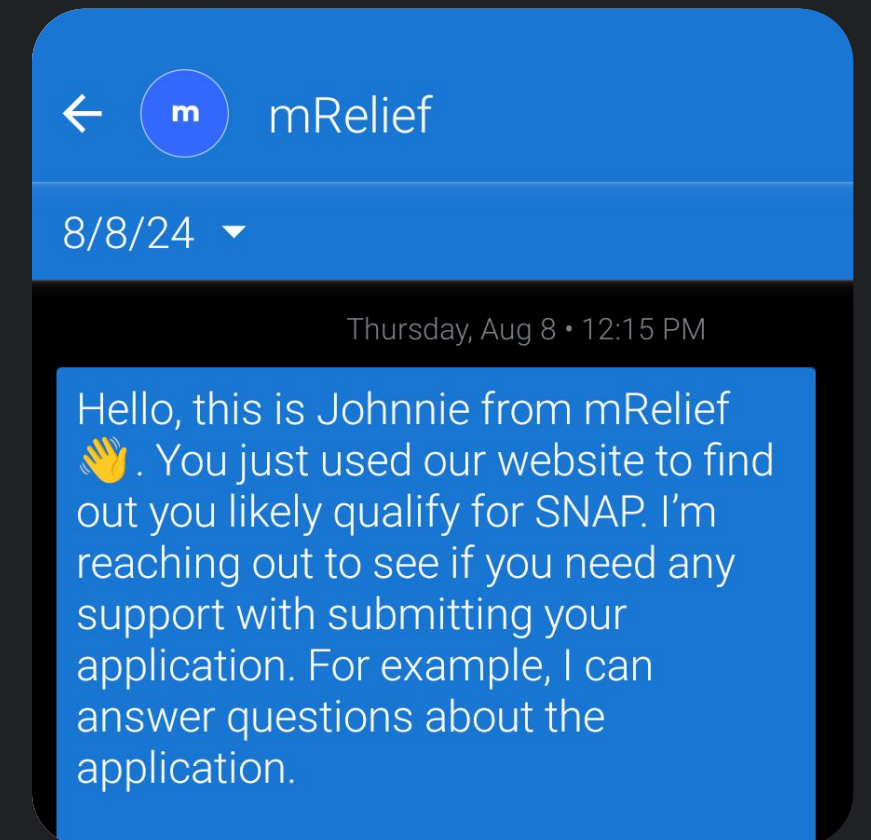
mRelief

This nonprofit startup was created to help low-income households navigate the application process for the Supplemental Nutrition Assistance Program (SNAP). The current SNAP (formerly known as food stamps) application involves a complex and lengthy process that requires 17-page applications, 90-minute phone calls and 10 documents just to determine eligibility.

mRelief aims to shorten the process, reduce the number of drop-offs, and honor the applicant's inherent dignity along the way.
mRelief.com

What they built as part of the Google.org Accelerator: Generative AI

mRelief built an SMS-accessible AI chatbot assistant to simplify the SNAP application process. It provides easy-to-understand eligibility information and assistance with the application itself. They are now following up with people within minutes of starting an application, rather than a day later. After conducting a successful pilot in one state, they aim to extend coverage nationwide to increase access to the safety net of SNAP without the application process contributing to the already stressful circumstance of poverty.

mRelief

8/8/24 ▾

Thursday, Aug 8 • 12:15 PM

Hello, this is Johnnie from mRelief 👋. You just used our website to find out you likely qualify for SNAP. I'm reaching out to see if you need any support with submitting your application. For example, I can answer questions about the application.

"

With the help of gen AI we are aiming to increase our SNAP application completion rates from 49% to 65%, which may result in around 50k completed self-service applications annually."

Belinda Rodriguez, Product Manager, mRelief

Bayes Impact

Surfacing real-time recommendations for social service beneficiaries via AI-powered engine.

BAYES IMPACT

Founded in 2014, Bayes Impact helps nonprofits and public services deliver personalized support at scale to their beneficiaries using generative AI. One current example is Bob, an AI employment advisor that has been used by 500,000 job seekers in France to receive job search and training advice. *bayesimpact.org*

What they built as part of the Google.org Accelerator: Generative AI

Bayes Impact built their flagship product CaseAI, an AI case manager that integrates with an NGO's current system to add smart features that help identify beneficiaries in need and draft action plans tailored to their history, in turn helping caseworkers save 25 hours of work per week on average. Although they are focused on Europe right now, their goal is to eventually build something scalable and off-the-shelf for social organizations worldwide to easily implement.

Hey Jérémie, here are your appointments for today:

| Fistname	Lastname	Gender	Age	Last update	Status
Abdoulaziz	Diallo	male	20	2 weeks ago	OPEN
Sophia	Moreau	female	19	2 weeks ago	OPEN
Abdel	Zekri	male	22	1 week ago	OPEN
Emilie	Dubois	female	23	1 week ago	OPEN
Amira	Benali	female	21	1 week ago	OPEN

"

We can save about a half hour per beneficiary per week, which is significant because it allows caseworkers to accomplish more and help more people."

Paul Duan, President, Bayes Impact

Key takeaways

The participating social impact organizations in the first-ever Google.org Accelerator: Generative AI are leading examples of how this technology can be leveraged boldly and for the greater good of humanity.

Their work in key areas such as knowledge, learning, and skills—addressing education and economic opportunities—along with scientific advancements in research and climate, and efforts to build resilient communities through effective crisis response, digital safety, well-being, and local investments, demonstrates the promise and impactful potential of AI.
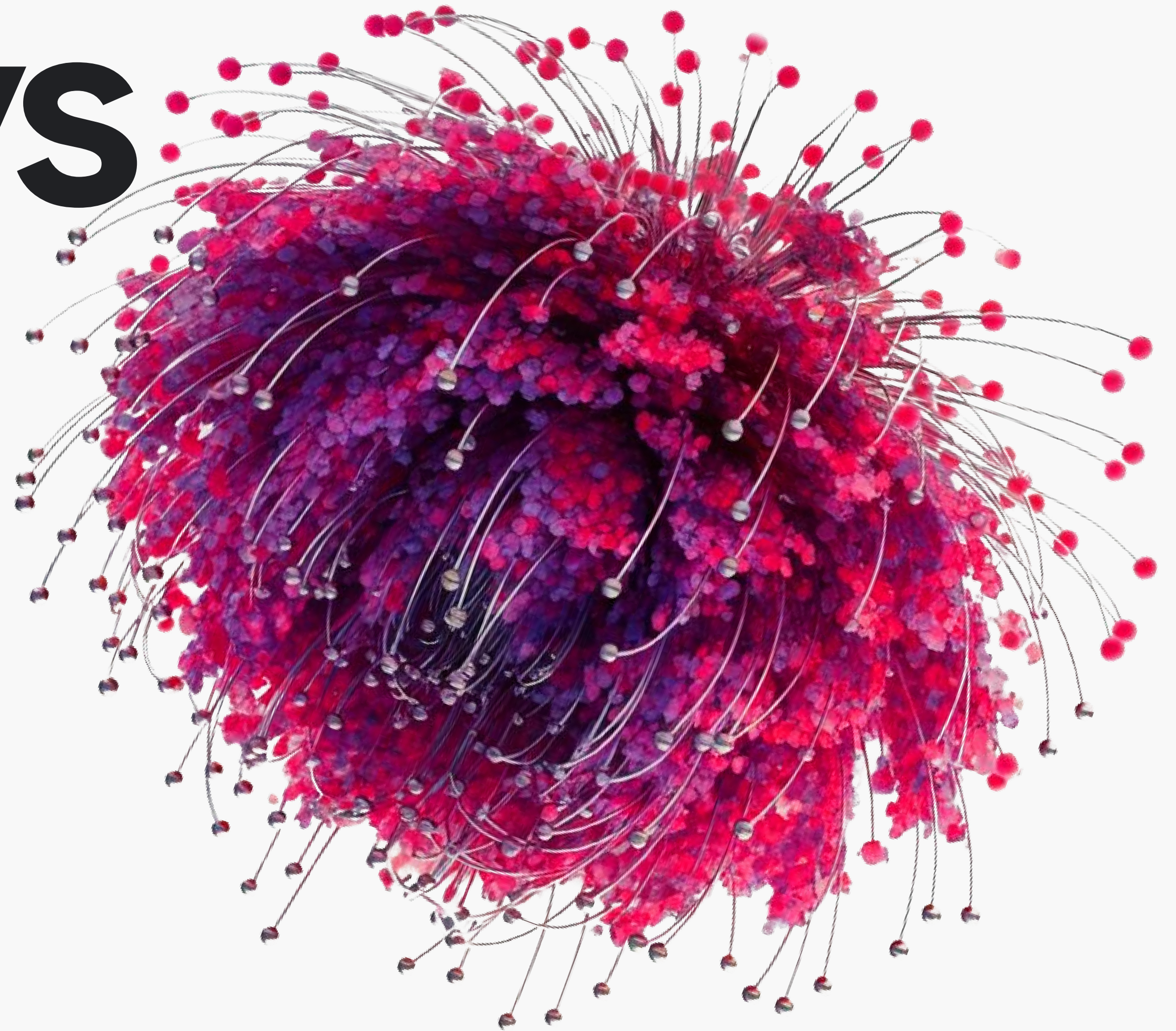
Make an impact with generative AI

Contact us to book your gen AI value consultation today.

Receive updates about our next Google.org Accelerator: Generative AI.

Google Cloud

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04 Recognizing and Overcoming Inequity in Education - UN Chronicle (2020).

05 Indicators of Higher Education Equity in the United States: 2020 Historical Trend Report." Pell Institute for the Study of Opportunity in Higher Education (2020).

06 World Employment and Social Outlook: Trends for Youth - International Labour Organization.

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08 Emissions from Fossil Fuels Continue to Rise - Earth Observatory (2024).

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12 Trust in politicians reaches its lowest score in 40 years- Ipsos Veracity Index (2023).

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14 The social work profession Report - Social Work England (2024).