Developing Critical AI Cultures

Dialogue Report by:
Patterns in Practice and Diverse AI

An introduction to us and the event

On Wednesday 13th March 2024, Patterns in Practice and Diverse AI hosted the event: "Developing Critical AI Cultures".

Bringing together participants from diverse backgrounds, this dialogue sought to hear critical and reflective insight into how AI technology affects various culturally diverse practitioners and/ or their communities.

The discussion highlighted both the perceived positive aspects of AI, such as its potential to increase access and ability to act as a socio-economic equaliser, and identified concerns, such as linguistic or cultural barriers that could reinforce existing inequalities.

This report provides a comprehensive summary of the event, including its background, design, key points from the dialogue, plus a list of related media.

"Patterns in Practice is an AHRC-funded project that is exploring how practitioners' beliefs, values and feelings interact to shape how they engage with AI and machine learning technology.

We aim to empower practitioners and relevant stakeholders to foster the development of critical and reflective data cultures."
Patterns in Practice

"We believe that AI can truly transform our world and our lives for the better. But that is only achievable if the people that work in and around the field are truly diverse.

And by diverse, we mean diversity of gender, race, sexual orientation, physical ability, neurodivergence, age, socio-economic background, education and thought."
Diverse AI

Background

As 2023 drew to a close, [Patterns in Practice hosted a dialogue](#) session as part of the [AI Fringe programme](#). After three years of inquiry into how beliefs, values, and feelings interact and shape our engagement with AI technology, we wanted to share our findings and understand how the research themes resonated with practitioners working in the field.

The event sparked fascinating and thoughtful conversations about the research Patterns in Practice had produced, but there was also a clear take away:

Conversations on AI need to include a more diverse range of perspectives

We built this into the planning of our second dialogue event. This time, with the aim of listening and learning from a diverse range of people who work with and are affected by AI.

We invited [Diverse AI](#) (a not-for-profit community interest organisation that aims to drive positive change through supporting and growing diversity in the field of AI) to collaborate. Together, we set about co-designing a new event called "Developing Critical AI Cultures".

This event was also selected to be part of the [Alan Turing Institute's AI UK Fringe 2024,](#) further underscoring the importance of our collective aims.
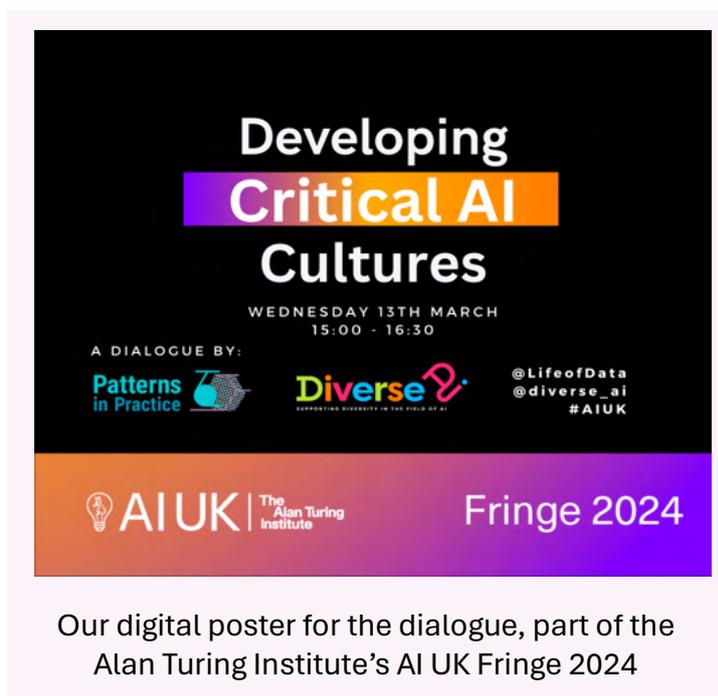
Our digital poster for the dialogue, part of the
Alan Turing Institute's AI UK Fringe 2024

People

Diverse communities

Whilst our first dialogue event was open invitation, for this event we used a more targeted invitation where AI practitioners were explicitly participating to represent their community or cultural background. Across our participants we had representation from a variety of geographic contexts: Nigeria, India, Netherlands, Iran, Azerbaijan, and across the UK.

Our participants brought knowledge and experience from diverse perspectives including: the neurodivergent community, the Deaf community, a rural female Indian context, a rural global majority context, and the Black British community. We also had representation from a diverse range of occupational backgrounds, such as: higher education and academia, data engineering, the arts, AI ethics, and data analytics.

Format

The event followed a simple format. Everyone was asked to prepare a short introduction on the following questions:

1. Introduction: Name, job title, location, culture or community being represented

2. Does your community or culture have access to AI? If yes, how do they interact with it? If not, why?

3. If you answered "yes" above, what benefits does AI bring to your community or culture?

4. What negative impact has been observed? Does AI reflect their cultural nuances? What ways do they suggest these negative outcomes are addressed?

5. What questions or concerns about AI would you like addressed that are not being asked?

We then entered into a facilitated discussion around some common themes.

Listen, watch, read

As part of our event, we also asked participants to suggest a song, film, or book which they relate to and which reflects on technology and its impact on different communities and cultures. Here are their responses:

Uploading the Human, Chicks on Speed **(song)**
Her **(film)**
Blade Runner 2049 **(film)**
Weapons of Mass Destruction, Cathy O'Neil **(book)**
Black Mirror: Nosedive **(TV Show)**
Coded Bias **(Documentary)**
Patterns in Practice: Cultures of AI **(podcast)**

AI and its potential force for positive change

The following sections of the report summarise the conversations at the dialogue event. Whilst all discussion points come from participants at the event, the views listed below are expressed in summary and do not necessarily represent the specific opinions of those who attended. Similarly, all participants were interested in AI and their views do not necessarily represent their wider communities.
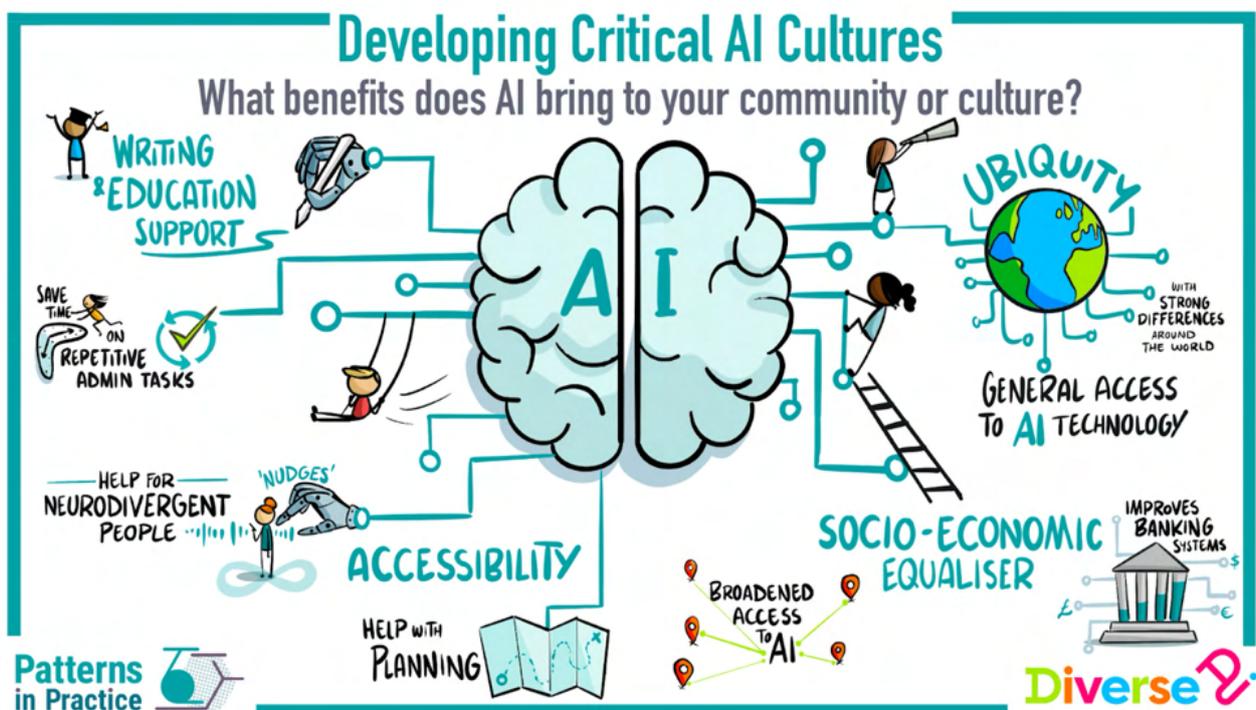
Illustration by Julia Bakay

Access

Across the diverse range of communities and cultures represented at the dialogue, most participants reported having access to AI. Generally, most groups represented have access to AI technology in one form or another.

What access looked like, however, strongly differed between countries, generations, rural and urban communities, and educational background.

Nevertheless, AI's prevalence across varied communities speaks to the increasing ubiquity of this technology.

Education and healthcare

Whilst socio-economic factors were believed to played a part in limiting access to AI, the technology was also perceived as a tool that helps to bridge the information gap in rural communities. This is especially apparent in educational contexts. Several participants noted that AI's ability to summarise and process large pieces of text, picking out key bits of information and answering questions about the content, was an invaluable tool for different cultures.

One participant discussed the impact of AI on agricultural communities in rural India. They explained that low-cost, low-bandwidth internet could facilitate education in areas where resources were previously unavailable. Furthermore, farmers could use AI to optimize crop production. The participant also mentioned the potential of AI chatbots to address health queries that might otherwise remain unanswered.

Similarly, another participant, who worked with women in rural Indian communities, said tools such as ChatGPT can increase access to information, although internet connectivity still remains a barrier. Lastly, in higher education, one participant reported that students studying in a second language also utilised text-based AI tools to assist with writing tasks.

Accessibility

Another participant acknowledged that large language models' (LLM) ability to synthesise text can be an enabler for neurodivergent people when processing complex information. They also stated that people with dyslexia or other language-based learning disabilities can benefit from tools such as text-to-voice.

Likewise, voice assistants can help with routine tasks. As one participant suggested, a 'nudge' from these assistants can assist with executive functions (the 'management system' of the brain), such as decision making and organisation. AI tools can also simplify planning by offering suggestions and highlighting important things to remember. The participant also reported that this is especially helpful to mitigate feelings of being overwhelmed at the start of a project or task.

In a sign language context, one participant representing the Deaf community suggested there are examples of fusing AI with sign languages such as Signapse, who are working towards 'synthetic' sign language interpreters. Although, there is more work to do (see "Lost in Translation" section below). The potential negative socio-economic consequences of these tools replacing human sign language interpreters was not discussed.

There's still a lot of work to do

The conversation so far indicates that AI holds vast potential to increase accessibility, help alleviate socio-economic disparities, and improve access to education and healthcare.

However, these benefits are not guaranteed. There's still a lot of work to do to push AI towards fulfilling these positive outcomes and away from a scenario where AI technology entrenches and deepens pre-existing inequalities.
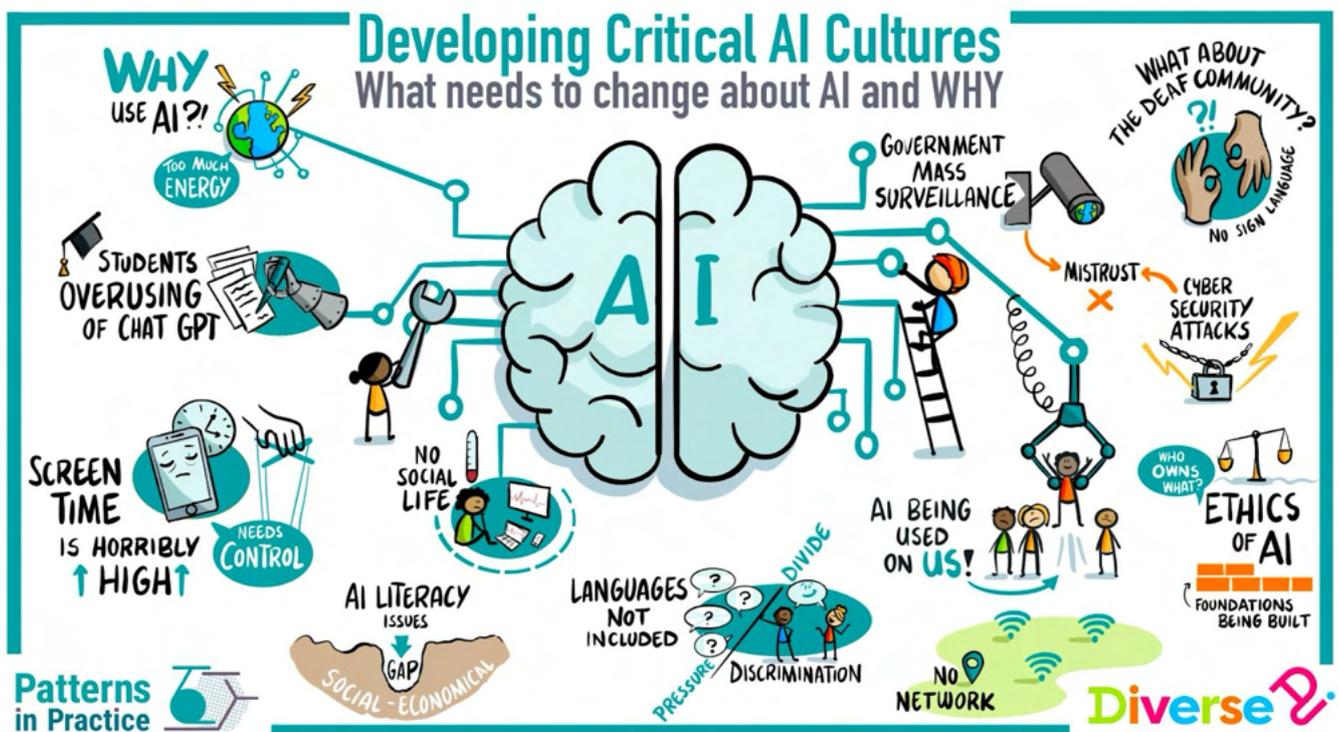
Illustration by Julia Bakay

Lost in translation

One participant, who conducts research from a global majority perspective (referring to the diverse range of non-white ethnic groups that constitute the majority of the global population), acknowledged that there are gaps in AI literacy.

These gaps partly result from socio-economic inequality, which limits access to AI technology. However, there is also a language barrier. They explained that, in India, there are hundreds of identified languages and dialects, whilst AI can only be accessed in a few. This historic cultural discrimination embedded in technology development warrants further consideration

This acutely affects poorer, rural communities whose languages are less likely to be represented. A second participant agreed, emphasising the necessity of making this technology available to rural communities in a timely manner so as to avoid a development gap.

Another participant pointed out [the prevalence of dominant global languages in AI technology,](#) such as English, which results in linguistic, behavioural, and cultural nuances being lost in translation.

Indeed, several participants cited concerns that if language continues to prevent engagement with AI, excluded communities will fall behind those who can access the technology, deepening inequalities. A further example of this is with sign languages, which are poorly represented across AI technology, preventing Deaf people from engaging and accessing the potential benefits.

Cultural limitations and barriers

Beyond linguistic discrimination, there are further cultural limitations and barriers related to AI – both in the data used to develop it, and in attitudes towards its use.

One participant recalled an anecdote, where they asked ChatGPT to describe views from a Deaf community and hearing community perspective to compare the bias. The output, they explained, was firmly rooted in a hearing and medicalised perspective of deafness, as opposed to a Deaf culturalist background. This bias within LLMs and other AI technologies serves to exclude minority cultures, they concluded.

Two other participants brought up concerns around [cultural suspicion and rejection of AI technology.](#) Within a Nigerian context, it was expressed that there are high levels of distrust in this technology relating to cyber security attacks and loan sharks. Political instability has also led to fears of AI being used for mass surveillance.

Within young Black British communities, although AI is in part an equaliser (enabling access to creative tools and banking services at reduced costs) there remains a refusal based on the lack of transparency and discrimination. The many examples of how AI has been discriminatory, such as within [policing, border control](#) and [within recruitment](#) reinforces these concerns.

In the same vein, one participant representing the neurodivergent community expressed a worry that [AI recruitment tools used in job screening can make neurodivergent people more vulnerable to discrimination,](#) as a result of different approaches to self-expression.

Environmental Issues and Overreliance

One participant posed the question: why, given all the challenges in the world, is AI the thing we've decided to invest time and literal energy into? They asked whether it was environmentally responsible to proceed with energy intensive development of AI technology.

The final theme which arose during the conversation around the negative aspects of AI technology was becoming over-reliant on AI. One participant suggested that students in higher education are overusing generative AI, leading to de-skilling and a decline in research skills.

Another participant echoed this concern, stating that younger professionals in architecture have the opportunity to take shortcuts using AI, potentially compromising the authenticity of their work, disrespecting the craft involved, and raising questions about the IP and ownership of AI-produced work.

Conclusion

In this report, we have separated the benefits and drawbacks of AI into two distinguishable sections. However, in practice, the positive and negative characteristics of this technology often exist together in a grey area. It is therefore worth considering the insights, as interlinked rather than mutually exclusive.

The learnings from this dialogue further insights into the perceptions of different members of various communities, particularly those from the Global South. In some contexts, AI is perceived as a socio-economic enabler with high potential to serve diverse communities. At the same time, it has the potential to exacerbate inequalities and exclude vulnerable groups. This reflects the realities of current AI technologies.

Participatory research, such as this dialogue, is one sure way of ensuring a range of voices are heard, and opinions, concerns and feedback are included in AI design, development, deployment and use, in a recurrent feedback loop.

Specific communities have often been excluded from the development of current AI technologies that serve society globally. It is crucial that we find ways to intervene on the current trajectory of AI development.

Moving Forward

This dialogue aims to highlight a more critical perspective and diverse viewpoints regarding AI systems, encompassing the insight from community members who are often excluded from conversations about AI. Diverse AI believe that this can promote a move towards more inclusive, transparent, beneficial and trustworthy AI. Patterns in Practice believe that critical reflection by diverse AI practitioners may be of value to developing critical data practices and cultures.

This dialogue is the first and critical step towards achieving the above. Diverse AI will take the next steps on this research, initially focusing on one particular community - potentially the Deaf community - to drive further discourse and insights in their perspectives and challenges, with the ultimate goal of developing diverse LLM datasets and benchmarks that will be freely accessible to the research community.

This work will also need to take into account and minimise potential negative impacts on human sign language interpreters and consider the environmental footprint of LLMs.

Insights from this dialogue can be adopted by any interested institution or organisation and further partnership could be carried out with Diverse AI. If you'd like to collaborate with Diverse AI, please email:

research@diverse-ai.org

The conversations and findings from this dialogue event will similarly be used to inform the final reports and outputs from the Patterns in Practice research project, including our podcast series.

Resources and links

Diverse AI (website):
https://www.diverse-ai.org/

Diverse AI Team: Toju Duke, Steph Wright, Chandrima Ganguly, Dawn Hunter, Ruth Ikwu, Oriana Medlicott, Kriti Spinoff

X / Twitter: @diverse_ai

Patterns in Practice (website): https://lifeofdata.org/site/patterns-in-practice/

Patterns in Practice Team: Jo Bates, Itzelle Medina Perea, Helen Kennedy, Erinma Ochu, Monika Fratczak, Samborne Bush, Craig Scott, Hadley Beresford

X / Twitter: @LifeOfData

Patterns in Practice: Cultures of AI (podcast):
https://lifeofdata.org/site/patterns-in-practice/cultures-of-ai-podcast-creative-

Acknowledgements

This report was co-authored by Samborne Bush (Patterns in Practice) and Toju Duke (Diverse AI), edited by Dr Erinma Ochu (Patterns in Practice) and proof read by Anna Beckett.