

Young Refugees' and Asylum-Seekers' Uses and Perceptions of AI: A Qualitative Study

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Abstract

As AI becomes more ubiquitous there is a need to ensure that those on the margins of society, such as refugees and asylum-seekers, are not left behind. As such, this paper presents research conducted with 29 YRAS in Newcastle-upon-Tyne (UK) exploring their usage, awareness and perceptions of AI technologies. Our findings provide groundwork for the design and development of humanitarian AIs and AI literacy programmes for this population.

CCS Concepts

• Human-centered computing → Empirical studies in HCI.

Keywords

Artificial Intelligence, Human-Computer Interaction, Refugees, Responsible AI, Children, Humanitarian AI, AI Literacy

ACM Reference Format:

William A. P. Imoukhuede, Lauren Scott, Jamie Mahoney, Kyle Montague, and Reem Talhouk. 2018. Young Refugees' and Asylum-Seekers' Uses and Perceptions of AI: A Qualitative Study. In *Proceedings of Make sure to enter the correct conference title from your rights confirmation email (Conference acronym 'XX)*. ACM, New York, NY, USA, 5 pages. <https://doi.org/XXXXXXX.XXXXXXX>

1 Introduction

Artificial Intelligence (AI) is increasingly being interwoven in to everyday processes and society, especially in areas where there are promises of AIs improving efficiencies. This is especially true in the humanitarian sector [27, 28] where refugees and asylum-seekers (YRAS), their needs, and migration journeys are increasingly being managed through and with AI technologies [8, 22]. Similar to the digitalisation of humanitarian action [35, 36] and asylum-seeking processes [12, 23], the AI turn runs the risk of increasing inequalities between refugees and the socio-technical systems that govern their

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Conference acronym 'XX, Woodstock, NY

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ACM ISBN 978-1-4503-XXXX-X/2018/06
<https://doi.org/XXXXXXX.XXXXXXX>

lives [28, 34]. These inequalities are exacerbated by low AI literacy levels held by refugees and asylum seekers, disempowering them when using these platforms [33], and restricting their ability to responsibly harness the opportunities and benefits AI tools may offer them.

Motivated by these challenges, the research presented in this paper aims to shed light on the use and perceptions of AI technologies by YRAS residing in the NorthEast of England. Situated in research on children's use and understandings of AI, we contribute how YRAS are currently engaging with AI technologies, their awareness of the capabilities of AI technologies, and how they perceive AI technologies. We discuss the implications of our findings for humanitarian AI technologies and AI literacy programmes.

2 Related Work

Our research is motivated by existing literature on humanitarian AI, refugees interacting with AI and children's use and perceptions of AI.

2.1 Refugees and AI

Refugees and asylum-seekers are increasingly interacting with everyday and humanitarian AI technologies [5]. AI research within this area has focused on building tailored systems for national governance such as forecasting migration policy outcomes[3], social media summarisation for inclusive policymaking [15], and even automated asylum seeker interviews [19]. Some AI systems have been developed to aid humanitarian resource allocation [25], forecast migration trends [21] and predict the likelihood of individuals overstaying their visas [4]. AI chatbots services have been used to mediate interactions between migrants and service advisors [36]. These are developed without the input of the community they are being used on, thus maintaining the technologically-mediated power imbalance between refugees and the humanitarian system [34].

As such, understanding refugees' and asylum-seekers' current use and perceptions of AI technologies is key, as a first step in contributing to the implementation of Responsible AI within this space. Tachtler et al. [33] argue the need for the accounting of this communities' privacy and security concerns; and raise concerns regarding low technology and AI literacy. In this paper we respond to this call with a focus on YRAS.

2.2 Children and AI

As there is limited research on AI use and understandings with YRAS, we draw on and situate our research in wider research focused on children and AI.

Investigations to how different groups perceive AI have revealed a range of preconceptions, misconceptions, and myths around AI including exaggerated expectations regarding the tech's capabilities [11] to misconceptions of AI possessing human-like abilities [13, 30]. Investigations into children's perceptions of and interactions with AI have shown that they have a mixed understanding of what AI is. They often associate it with digital devices such as smartphones and smartwatches [14], conflate AI with robotics [16, 24] and overestimate AI's capabilities [9].

Studies have found that gender, socioeconomic status, culture, and digital literacy can influence children's attitudes and perceptions of AI [1]. In addition, children from lower socio-economic backgrounds tend to struggle to use AI in comparison with their higher socio-economic counterparts [10]. A comparative study of children's scepticism towards AI, Druga et al. [10] found that children in Europe with higher computer/AI literacy were more sceptical than their American counterparts. In contrast, research with children in Nigeria exploring their imaginaries of the use of AI, identified that children find AI technologies to be a useful "Search Machine" [1, p.3] and tool for translation.

While research sheds light on children's perceptions, understandings and trust (and scepticism) towards AI technologies, there is a need to further explore these with communities on the margins of society [33] so that populations such as YRAS and the communities they belong to are not excluded from the wider Child-Centric AI [31] and Responsible AI agenda. In addition and as previously outlined (see section 2.1), there is a need to account for socio-political factors specific to YRAS that shape their understandings, interactions and experiences with (AI) technologies.

3 Methods

The data analysis presented in this paper is rooted in a wider project titled "Misinformation/Disinformation and Generative AI: Building Young Refugees' Skills and Capacities" being led in partnership with action Foundation– a third sector organisation supporting refugees. Data was collected as part of weekly Computer Club sessions we run for YRAS and a focus group with a wider group of YRAS. The project received ethical approval from Northumbria University Ethical Review College.

3.1 Recruitment

Recruitment was conducted through action Foundation. Participants were assigned Participant IDs (P1-P28) by the research team.

3.1.1 Computer Club Sessions. The Computer Club was set up as an 'alternative school day' to which YRAS were referred. Upon referral, written consent and guardian assent were collected.

In this paper we present analysis from the two sessions that were used to collect data on AI literacy and their understandings of AI. Participants' ages ranged from 13-18 with 5 boys (P1-P5) participating in session one and 5 boys and one girl (P1, P2, P4, P5,

P6, P7) in session two. Pseudonyms were selected by participants based on their favourite food.

3.1.2 Focus Group. Focus group participants were recruited by our partner organisation and consent and guardian assent were obtained prior to the initiation of the focus group. In total we had 21 participants (Participant IDs: P8-P29) with ages ranging from 8 to 17 and a total of 11 boys and 10 girls.

Self-reported ethnicity/countries of participants across the Computer Club sessions and focus group included: Iraqi, Kurdish, Portuguese, Iranian, Jordanian, Syrian, Sudanese, Eritrean, Colombian and Philippines.

3.2 Data Collection

Across both the Computer Club sessions and focus group, discussions among participants and the research team were audio recorded. Additionally, the research team recorded observation notes.

3.2.1 Computer Club Sessions. In each session (approximately two hours each), participants were asked to discuss their thoughts and opinions about AI (session one) and the trustworthiness of Generative AI (session two). They were also tasked to complete worksheets that prompted them to share: (1) AI technologies they use and why, (2) which digital platforms they think use AI, (3) what they think AI can do (4) how they think AI technologies work, (5) who they think makes AI technologies, and (6) if they believe generative AI outputs are always correct.

3.2.2 Focus Group. The Focus Group (approximately one hour) followed a semi-structured topic guide exploring topics covered during Computer Club sessions (above).

3.3 Data Analysis

At the end of each Computer Club session and after the focus group, the research team met for a debrief– sharing notes, key observations and statements made by participants. Transcriptions of audio recordings and research team notes were combined in to a single data corpus. A preliminary thematic analysis was conducted [7], guided by discussions held by the research team during session debriefings.

4 Preliminary Findings

In this section we present participants' current usage and awareness of AI technologies. Furthermore, we draw attention to how YRAS perceive AI technologies through the ways in which they conceptualise AI and through the lens of trust.

4.1 Use & Awareness of AI Technologies

4.1.1 Current Use of AI. Throughout the Computer Club Sessions, we observed several participants using the Google App for text recognition to translate the text in the worksheets to their preferred language. One participant, P4, was observed using the Google App's speech-to-text so that he may convert Arabic speech to text that he would then translate to English responses in the worksheet.

In addition, despite being advised they can use a search engine to look up terms, several of them used ChatGPT on their phones

and the desktop computers– in essence treating the Generative AI tool as a search engine. This notion of AI being used as a search engine was further re-enforced by a participant describing AI as *basically google* (P23).

When further probed on how they usually use ChatGPT, the majority of participants indicated that they use it as a helpful tool:

“I use it to learn English” (P3)

“For school work and to ask questions about things she has been thinking about in life” (P25)

The above highlight the ubiquity of generative AI tool among participants.

4.1.2 Awareness of uses & capabilities of AI. When prompted about where they think AI technologies are being used, some participants were conscious of digital platforms using Recommender AI:

“it [AI] suggests things that the user will like on Insta[gram]” (P2)

“[AI is used] for finding movie” (P20)

In addition, some participants referred to how AI is used in self-driving cars and in medical imaging. Participants were also quite aware of the capabilities of Generative AI stating:

“It can draw what I want” (P3)

“It can make things from your imagination and make it real” (P5)

“In Snapchat you have someone called AI...to chat with it” (P8)

However, some misattributed the use of AI in digital tools and features within their mobile phones such as *“AI also fixes the time on my phone when I travel”* (P3), sending calendar reminders and making calls to people in other countries. Other participants attributed AI to the making of mobile phone applications:

“Snapchat got created by AI” (P26)

Further, one participant stated that AI is being used everywhere:

“We don’t have to say we will use it, it already sees everything and can hear our voice...it is not supposed to happen, they have it in everything but have not told us about it” (P5)

The above quote not only highlights the misconceived understanding of the current state of the pervasiveness of AI technologies, but also implies a degree of distrust towards AI technologies on which we expand further (see Section 4.2.2).

4.2 Perceptions of AI Technologies

In this section, we present findings demonstrating how YRAS perceive AI technologies through unpacking how they conceptualise AI and the ways through which they frame their trust/distrust of AI technologies.

4.2.1 Conceptualisations of AI technologies. When encouraged to conceptualise AI technologies, some participants pointedly agreed that AI is not a human as it:

“does not have emotions...It [AI] can not forget anything...a human can forget” (P3)

While one participant justified that *“I don’t think it is my friend, he is not human”* (P5) another participant disagreed to an extent by stating:

“[you] can think of it as a friend...but not a close friend...a work colleague!” (P3)

Others conceptualised AI through the way in which it works as a human-made tool:

“It works with a press of a button...humans invented it, they put in to it information and when you ask a question it answers...the human programmes answers and questions” (P4)

While the above quotes depict a conceptualisation that is rooted in AI as a program, it also highlights a misconception that all answers and questions are programmed in to AI, thus overlooking the Machine Learning component of AI. Such misconceptions are further echoed in data from the focus group where one participant indicated that Generative AI is merely a digital interface connecting them to another human:

“They say there is a person answering and he calls himself AI” (P19)

Other conceptualisations included depicting AI as an interconnected network of AIs all connected to one another and learning from each other (P2).

4.2.2 Trust & AI. During data collection, we prompted participants to discuss whether they trust AI technologies– encouraging them to consider the wider socio-technical landscape such as ‘How does who made the AI technologies change if you trust it or not?’. Here, participants’ experiences of fleeing conflict and distrust in governments played a key factor. Indeed, the majority of participants indicated that they believe it is governments that make AI technologies:

“P4: The governments tell the computer scientists to make it

P2: The technology companies make it under the supervision of governments”

As such, their trust towards an AI technology may be intimately intertwined with their political views and inclinations towards the governments and countries that they believe made them:

“I trust the AI made by China...you know China has a lot of civilisation and a lot of information” (P21)

Others attributed their trust towards AI made by countries based on the country’s history in manufacturing technological products:

“Why wouldn’t I trust the AI from China...everything else is made in China” (P19)

That being said, there was also an emphasis on placing trust in technology companies that they perceive to make ‘good technology’ with P19 changing her mind and stating:

“Actually, I might trust the AI made by iPhone the person who made it is smart” (P19)

In parallel, other participants attributed their distrust towards AI technologies to their views on technology celebrities:

“[AI] accesses information...people like Elon Musk can get information from banks [using it]” (P7)

Some linked their trust in AI based on how well they consider Generative AI is in providing correct information. Trust in the correctness of Generative AI outputs varied:

“It is guaranteed...it is smarter than you think” (P4)

“Sometimes I believe it...sometimes” (P19)

“AI information is like 50 percent because some information is not correct and you decide if it is correct or not” (P23)

P3 further elaborated that his trust towards Generative AI stems from his own experimentation with it:

“I asked him [ChatGPT] a lot of questions and it is right except for religious questions, he can't answer it”

Others placed trust in that it is pulling answers from the web, therefore resulting in mostly accurate outputs, and in that it is responding the best it can to their prompts:

“It is not AI's fault [if something is incorrect]. It respects what we want and he does it to help” (P2)

“if you ask stupid questions, of course he won't answer you [properly]” (P23)

However, connecting back to his conceptualisation of AI as being and interconnected network of AIs all connected to one another and learning from each other (See section 4.2.1), P2 later went on to express concerns towards what would happen if one AI had incorrect information:

“What if there is information [intended] to mislead people...All the AI is connected and they might all be wrong” (P2)

The concern towards AI sharing incorrect information was echoed by others:

“It will maybe lie...it would lie on purpose” (P6)

“It lies when it does not know something” (P1)

“But sometimes it [AI] plants an answer in the mind of a person and the person does not know” (P5)

These findings highlight the mixed perceptions among participants of generative AI technologies as sources of information.

5 Discussion

Our findings reaffirm that just like other technologies (e.g., smartphones [6, 32]), refugees harness the opportunities of AI to support them in their migration journey and navigating their new homes whether it be using AI for language translation [1] and learning and as a search engine [1].

In addition, our analysis highlights that YRAS often misattribute the use of AI by functionalities on their smartphones. This is similar to previous research on children's awareness of AI capabilities [14]. Their conceptualisations of AI ranged from being merely an interface mediating their conversations with another human to an interconnected network of many AIs. Some expressed distrust in AI outputs, claiming that it may lie, and others pointed to how it is smarter than we think. While some participants' trust in AI aligns with research showing that individuals with lower socio-economic status and limited digital literacy tend to be less sceptical of AI [10], their scepticism grew as they discussed which government, company or tech celebrity was involved in the development of AI. Their

belief that governments are in control of making AI technologies may have repercussions specific to this population when considering trust and humanitarian AI. Indeed, research with refugees has identified how fear of persecution and distrust towards governments contributes to a hesitance in using and participating in data-driven technologies [29, 37]. As such, there is an opportunity for AI practitioners to be more transparent about how the AI systems are developed and to disclose any government involvement as we found that that is relevant to refugees.

Furthermore, we found that one participant initially assumed that Generative AI would be able to respond to questions about religion, but when it failed to do so accurately he developed a distrust towards it. This points to a need for the various epistemologies held by communities to be incorporated into AIs as a way of establishing trust and in this case echoing decolonial calls [20] for faith-based computing [26].

Coupled with the aforementioned top-down approaches for AI transparency and trust, our findings also indicate the need for AI literacy programmes for this population. Research has shown that perceptions of AI can be altered significantly with educational interventions and tools [2, 17, 18] with improvements in understanding of AI capabilities recorded when AI is introduced and used in classroom settings [9].

6 Conclusion

In this paper, we present findings from Computer Club sessions and a focus group with YRAS where we explored their AI literacy and understandings. We bring to the fore their current use and awareness of AI technologies and their perceptions of these technologies. We highlight the need to account for their perceptions of AI technologies and their ties to governments, as well as the epistemological basis through which they perceive them. Accordingly, we make recommendations for the design of AI technologies and AI literacy programmes for this population.

7 Acknowledgments

Thank you to all participants and action Foundation volunteers who joined us for the Computer Club Sessions and focus group. This research was funded by the Engineering and Physical Sciences Research Council [grant number EP/Y009800/1], through funding from Responsible AI UK (RAI-SK-BID-00055).

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