Afrofuturism and UK Maternal Health: Visions of Technology in Black Women's Experiences of Pregnancy, Birth and Beyond.

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Introduction

In a world where health technologies and digital application software are growing exponentially and lines between private and public health services are blurred, how do we envision the use of technology to support maternity care in the UK for our public health services? How do we include the voices of those historically excluded? And finally, what inspiration can we draw from Afrofuturism as we aim to address the UK Black maternal health crisis?

In this opinion piece, we position the concept of Afrofuturism, the convergence of African diaspora culture and technology, as having the potential to underpin the health care systems of tomorrow. Through the prism of Afrofuturism, we can rebuild maternity health systems, nurture staff and, in turn, nourish and take care of pregnant women and birthing people. Integrating humane healthcare into the utilisation of tech is foundational, especially as we mend the conditions to uplift those furthest from the centre of power. From racial disparities in deaths due to COVID-19, to assault, harassment, police brutality and, most recently, the denial of entry to safety for Black refugees at the Ukraine border, anti-Black racism persists at both intrapersonal and systemic levels in society. By understanding the experiences, struggles, and lives of Black women, we engage with critical resistance to power imbalances, and ultimately aim to develop threads of solidarity to defeat the struggles many face.

The Afrofuturism of health starts at conception. Pregnancy, birth and early childhood are upheld as life-affirming, culturally safe rites of passage and are a vehicle with which we can construct the world we wish to see: free of harm, violence and war. Afrofuturism is Black maternal health re-imagined. It unequivocally accepts Black women as human, capable decision-makers, the authority of their own minds and bodies; capable of love, peace, joy and spirituality - and these should be the notions that guides the technology to support us through our maternal health journeys. Although public health services have far to go to make our vision of health and technology a reality, we believe that steps can be taken right now, beginning with the reframing of how technology is utilised in addressing and correcting the Black maternal health crisis.

Anti-Black Racism, Trust, and Tech Solutions

It is impossible to reframe the utilisation of technology or imagine our vision of reproductive justice without having Black women at the helm of both the design of health technology and health research industries. In tech industry and in academia, data shows there is a lack of representation in technology-creating, research-shaping spaces as well as discrimination within them. Black ex-Google employees Timnit Gebru (a co-lead of their Ethical Artificial Intelligence Team) and April Christina Curley (a diversity recruiter) have taken to the media to share how the company has been hostile to Black women and are not authentic in their drives to increase diversity. Moreover, Google's algorithm itself has been found to be heavily biased against Black girls, as reported in a

Times article. Whilst Google is just one company, it is a superpower in the tech world and a leader in how AI is developed and used as they, too, have a stake in bioinformatics, medical tools, and healthcare support. Therefore, broadly speaking, there is explicit and implicit, institutional and interpersonal anti-Black racism in the production of technology. Whether embedded in the technology itself or in the environment the technology is produced, there is deeply rooted hostility towards Black people and it translates into our user experience. Moreover, these biases are found in the world of explicitly medical technology too; for example, there are foundational, built-in anti-Black racial biases in algorithms created to allocate care to patients.

What is particularly striking about the world of tech is that there is a widespread belief in an ethic of colour blindness. There is a belief that algorithms are 'neutral', avoiding human discrimination. However, we have learned technology is capable of reinforcing the already-existing racism that is ingrained in the society and systems that produce the technology, and results in the exacerbation of racial health disparities and inequalities. Despite dangerous anti-Black racism that is quite literally built into technology and reflects a culture of discrimination, the public health system continues to invest in medical technologies aimed at reducing racial health disparities without critically assessing the following:

    a) Technology is not the root cause of racial health disparities or the ill treatment of ethnic minorities in healthcare so it is not the sole solution that requires the most financial investment;

    b) Technologies often contribute to the maintenance and furthering of racial health disparities because they are not designed or produced with actively anti-racist and decolonial ethics or with Black feminist health researchers/ tech experts/ service users, and;

    c) In the rare cases race and racism are accounted for, the measures used are inadequate because they don't draw from quantitative research which has successfully accounted for race (like that from social epidemiologists working on race and health, such as Sherman James or Arline Geronimus), nor do they draw from critical qualitative research which explains the social origins of race and the biopsychosocial nature of disease morbidity or mortality risk.

Therefore, there is little hope that an increase in the use of technology will result in fairer, equitable healthcare outcomes for ethnic minorities- not least for Black women affected by the maternal health crisis- as is a part of Savid Javid's logic for NHS investment into AI projects to "tackle racial inequality".

Technology, Surveillance and Culturally Safe Care
Historically, technological advancement and scientific experimentation has been intrinsically linked to colonial expansion and dominance over the colonised. Legacies of colonialism persist through the surveillance of Black and Brown peoples, demonstrated in policing, at the borders and in hospitals. Those utilising surveillance as a health care tool should be sensitive to its volatile past. Rather than being used for the benefit of those in power, it should be meaningfully implemented and employed for the advancement of those being surveilled. Exercising caution is essential to avoid the exasperation of mistrust that communities have towards major institutions who exploit surveillance technologies.

An example of culturally safe use of technology acknowledges the historical and present implications of the intersection of race, technology and surveillance. In the planning and design phases of tech initiatives, implementers should not only be interested in biomedical outcomes, but equally curious about how Black people interact, feel and engage with the product. Culturally safe care works to ensure that the action and agents of maternity services do not reproduce harm stemming from wider society. For example, the additional questions, further tests and procedures, without apparent benefit, that comes along with targeted surveillance may be a source of anxiety and reminiscent of hostile and historically violent institutions. We need to better understand the mechanisms at play - the technology, the information that powers it and how people relate to it. Information garnered from tech-based research should be a source of empowerment for pregnant women; protect bodily autonomy and ensure personalised care and choice. Black women should experience pregnancy as full human-beings and should not feel disempowered or have disembodied maternity experiences. The conditions of maternity care not only shape pregnancy and birth, but affect parent-child attachment, breastfeeding and perinatal mental health; further impacting infancy, early childhood development and life-long physical and mental health.

Afrofuturism reframes how we see technology in our everyday lives and in health care. In the Afrofuturist model, research informed outputs enable us to achieve greater freedoms, but currently, it has the reverse effect. Pregnancy outcomes reduced to a life or death binary, though an important measure, on its own robs Black women of their right to joy, freedom and life-affirming maternity care. In the health care of Afrofuturism, remote technology enhances relationships between maternity staff and service users. It broadens the concept of continuity of carer, strengthening its benefits. Technology doesn't prop-up a broken, understaffed system, but is used to supplement a well-resourced and well-functioning workforce.

Conclusion: The Future is Happening Now
Although Afrofuturism points to a hopeful future, it does not mean that it holds no relevance for the present. Currently, we are witnessing a Black woman-led renaissance of sorts. Black women banding together to highlight misogynoir across the research and tech boards respectively (including the open letter written by [10 Black women to hold the UKRI accountable](#)), and to centre our narratives in how the UK's healthcare systems and services can address the Black maternal health crisis. The Afrofuturist turn in healthcare is budding. Seeds are being planted and the soil is being watered- the future is happening now and the future is yet to come. The UK health system needs to make the necessary space required to seriously, thoughtfully, and longitudinally solve the Black maternal health crisis. There isn't a lack of Black women experts and service users but a lack of recognition that we are inventors, scholars, and innovators that are the bridge between healthcare, technology, and justice. We have visions for the betterment of maternal health whose consequences would benefit others who are also at the periphery. We ask that the system changes its lens and galvanises the full potential of Afrofuturism in maternal health care. Together we can create maternity services that engenders life-affirming societies.

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